



# SHEETLINES

The Newsletter of  
THE CHARLES CLOSE SOCIETY

No.5

December 1982

## EDITORIAL

The growth of our Society (well over 100 members now) and the strong support of its members is reflected in this bumper Christmas issue. We have had three excellent meetings since October, and two of these are reported below; it is most heartening to see how individuals are prepared to make mammoth treks across the country to meet others of similar interests. The Edinburgh visit was particularly well attended, and for some was an enjoyable three-day event, linked with the British Cartographic Society's lecture on OS interwar cartography and Map Curators' Group meeting. For CCS members the Scottish location was the scene of tales of Irish visits, a detailed review by Brian Garvan of his work on the  $\frac{1}{4}$ " Third Edition, complementing that already done by Chris Board and a feast of Scottish OS mapping.

The Chairman, Peter Clark, has recently requested that the Society be represented on the new Royal Geographical Society's Ordnance Survey Committee, one of several set up as part of the two-tier structure of OS consultative machinery. Originally formed to represent geographical education and map library interests, the scope has now been broadened. As a consultative committee it will advise the OS Director General on matters of future policy planning. The Committee's Chairman is Professor W.G.V. Balchin.

A matter which has been the subject of considerable discussion has been whether or not the Society should hold one-day (or part-day) meetings which would effectively be an OS 'Map Mart'. Although many members would doubtless be enthusiastic about such a venture, one of the principal drawbacks would be the administrative costs of arranging a suitable venue. It has been decided, for the moment, that a worthwhile service to members would be the provision of free space, not exceeding one page, in Sheetlines, to be devoted to notices of members' exchange interests. No sales advertisements will be allowed as the aim of this idea is to promote the acquisition of material for study. The scheme will run on an experimental basis for one year when it will then be subject to review.

The next Annual General Meeting is provisionally scheduled for 23 April 1983. The next issue of Sheetlines will contain a ballot paper for the positions of Chairman, Secretary, Treasurer and Membership Secretary and two Committee Members - it would be nice to have several nominations for these posts!

This number's piece of OS ephemera has most kindly been supplied by Dermal Laboratories Ltd. Their Marketing Director, Terry Sadler, would be interested to receive any comments you may have. His address is on the advertisement.

Merry Christmas!

Cover: By courtesy of Dr. Tim Nicholson.

## WHAT'S WHAT WITH THE NEW SERIES

By

Richard Oliver

One of the most contentious subjects for OS students is the genealogy of the one-inch map between c.1870 and 1914. Cartographic writers often refer to a 'Second Series' or 'Revised Edition', notwithstanding that they would be hard put to find any 1" maps bearing such a description. I offer here what is perhaps a personal solution to the problem of the 1" 'series' and 'editions' before 1918; there is nothing very original in my starting-point, which derives from Dr. J.B. Harley (1). The whole business of defining editions and series - whether in the widest bibliographical sense, or in one pertaining particularly to the OS - is extremely complex, and this paper seeks only to define the generations of the English 1" between 1870 and 1914 as divisions, called 'editions', of a larger entity, the New Series. Details of specification changes are included only where they can be used to identify these 'editions'. Brief details of the pre-1914 Scottish 1" have been included, as it is closely related to the English and Welsh New Series.

Three things ought to be noted before proceeding: (1) the words 'series' and 'edition' are not interchangeable; (2) the 1" map does not fall into a continuous line of development between 1801 and 1974; (3) any genealogy such as is attempted here must take account of any reference to 'edition', etc., that appears on individual sheets. It's no good devising elaborate arguments that millions of 7th Series sheets ought in truth to be the 11th Edition!

To save space, I have devised a shorthand code for each 'edition' and variant. This is capable of being extended over all OS map series, though I think that few are as ramified as the 1" family! There are three basic elements: (1) the series - NS for English New Series, S for Scottish 1"; (2) the format - O for outline, H for 'with hills', C for coloured form, LC for 'in colours, Large Sheet Series', OB for 'Black Outline' edition where this is specified on the map itself, I-6 or I-25 for 6" and 25" formats, and D for district maps. 'D' is capable of subdivision, for example: DR-roads only coloured, DC, in full colour, DE, in experimental styles. Although I have not done so in this paper, one can then add the sheet number if that is necessary, e.g. NS-2-H:292, for New Series, 2nd edition, with hills, sheet 292. After the sheet number one might add a code to denote the particular state of the sheet, e.g. NS-3-SC:286-10.05 for New Series, 3rd edition, in colours, small sheet series, sheet 286, state '10.05'. I submit this scheme for wider adoption.

### The Old Series

Between 1805 and 1844, that part of Britain lying south of a line running to the north of Preston and Hull was provided with 1" mapping on the Cassini projection. Though varying in such respects as design, revision, etc., these 90 sheets - some published whole, some in quarters - all derive from surveys made expressly for a 1" map. Usually known since the 1870s as the Old Series, these maps remained on sale until 1903.

### Old and New

Between 1847 and 1874, 1" coverage of Northern England and the Isle of Man was brought to completion, being published as Old Series sheets 91 to 110; there were 68 quarter-sheets, 18" x 12", and one 24" x 36" full sheet, covering the Isle of Man (2), and all were reduced from surveys at 6" to the mile or larger. All were published with hachured relief, and all but three were issued in an 'outline' format that lacked hachures and used contours instead (3). During the 1870s, following the decision to replace Old Series sheets 1 to 90, sheets 91 to 110 were renumbered 1 to 73 from north to south, five numbers being allocated to sheet '100', and henceforth were treated as part of the 'new Series' (NS), although no substantial revisions were made for these sheets until the 1890s.

### The New Series: its first edition (NS-1)

By July 1872, when the New Series was authorised, Old Series Sheets 1-90 were seriously out of date. The replacement, often referred to as 'new series' rather than 'New Series' in its early years, was to be reduced from the large-scale cadastral surveys authorised

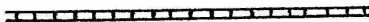

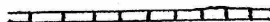

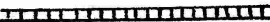


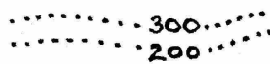
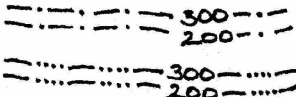
Passenger Lines   
 Mineral Lines 

Fig.1 Railway symbols used on NS-1 and S-1 sheets.



RAILWAY SYMBOLS used on NS-2, S-2 and later engraved sheets:

NS-2 sheets published	Single track	
before c. July 1896	Double track	
NS sheets published	Single track	
after c. July 1896; and	Double track	
earlier sheets when re-printed; S-2, S-3, S-4.	Mineral lines	




#### CONTOUR SYMBOLS

NS-1, S-1, S-2 sheets		
NS-2, NS-3, NS-4, S-3, S-4 engraved sheets	either or	

#### POSTAL FACILITY SYMBOLS

(a) NS-1 and S-1 sheets published c. 1884-89	
(b) NS-2, S-2, and later issues	
NB some S-2 sheets retain (a)	

#### CHURCH SYMBOLS

(a) NS-1 and S-1 sheets	
(usually accompanied on NS-1 sheets by either 'Ch' or the dedication)	
(b) NS-2, S-2 and later issues	
(some NS-2 make incorrect use of the  symbol)	
NB in England, symbols only seem to be used for Anglican parish churches.	

#### NAVIGATIONAL SYMBOLS

NS-2, S-2, and later sheets	
-----------------------------	--

Fig.2





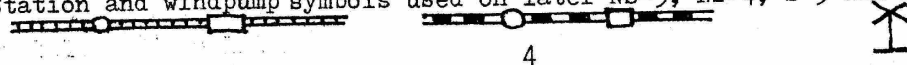
NS-2, also some NS-3-DE sheets	Single track	
	Double track	
NS-3-SC, NS-3-LC, S-3-C	Single track	
	Double track	

Fig.3 Railway symbols used on coloured sheets.

Station and windpump symbols used on later NS-3, NS-4, S-3 and S-4 sheets. Fig.4





in 1863. The sheet-lines followed on from the renumbered sheets in the north, being numbered from 74 to 360. The first sheet, 285, appeared in outline (NS-1-0) early in 1874, and the last appeared in December 1896.

Publication of a hachured 'hills' version (NS-1-H) started in 1878, and by 1898, 71 NS-1-H sheets had appeared. Until about 1892, the usual procedure was to engrave outline and contours, take an electrotyped duplicate from which to print outline copies, and then to add hachures to the original master plate. This had two drawbacks: (1) any revision had to be made on two sets of plates, with the risk of damaging the hachures and (2) the map could only be printed in one colour. From about 1892, the hill plate was entirely separate from the outline plate, enabling hills to be printed in either black or brown - the latter form being more legible. From about 1895 onwards, separate hill plates were prepared for those sheets on which the hachures had been engraved in combination with the outline; this was done either by taking a matrix, scraping off the outline detail, and producing an electrotyped positive for printing, or by transferring the engraved work to zinc or stone, and scraping off the unwanted detail with a penknife. This latter procedure was much quicker, but necessitated lithographic printing, which was unsuited to the small print-runs characteristic of most hill issues. (4)

#### Advance mapping

Publication of the New Series was hampered in two ways: by the county basis of the survey, which was not complete until 1893; and by the dependence on engraving. Lack of survey data resulted in 15 sheets - 79 to 81, 85, 86, 88, 90, 95 to 101, 314 and 329 - being issued with blank portions. 95, 101, 314 and 329 were later issued as complete NS-1-0 sheets. Most of the others remained incomplete until issued in 'revised' (NS-2) form in the 1890s (5).

As engraving was getting behind, 88 sheets of 'Advance Edition published by Photozincography' [sic], (NS-1-AO), were issued in 1891-92; they were crude-looking things, 1890s photozincography not being equal to the fine detail of small-scale maps. Also crude at first, but rather good in some later issues, were the 73 sheets of the 'Temporary Advance Edition with Hills' (NS-1-AH), which consisted of a transfer to zinc of the engraved outline, combined with photo- or heliozincographed hills in brown. Issued in 1892-7, they were discontinued for want of public support.

#### Coloured and District Maps

In about 1890, sheets 225 and 274 were issued with outline in black and contours and water in blue (NS-1-C). From 1887, district maps (NS-1-D), were issued, though only six such NS-1 sheets are known; some consisted of rejoined electrotyped plates, others used transfers to zinc or stone.

#### Combined sheets

The total number of engraved NS-1-0 sheets issued between 1874 and 1896 was 279. Sheets 243 and 260 (shown on early indexes as E of 242 and 259) were apparently never issued. Sheets 81/82, 117/133, 192/209, 261/262, 275/291 and 357/360 were issued as combined sheets. 226 was issued both as a separate sheet and as an insert on 227; sheet 354 was issued with attenuated borders. The total of 279 sheets includes nine - 74 to 78, 83, 84, 87, 357/360 - which included NS-2 type revision when first published; it is best to call these nine NS-1/2.

#### The New Series Revised: its second edition (NS-2)

A comprehensive revision of the New Series was made in 1893-98. Though these sheets carry no indication of 'edition' (contemporary practice appears to have been to call them the 'Revised New Series', or suchlike) I think it reasonable to call them the 2nd edition of the New Series, being as they are a comprehensive revision of NS-1 sheets. They may most readily be distinguished from NS-1 by the expanded range of conventional signs (see fig.2). NS-2 appeared in a number of formats:

- 1) in Outline (NS-2-0) published 1895-99.
- 2) with Hills (NS-2-H). All but five sheets were published 'with hills' in 1895-1904, the black outline being overprinted with black or brown hachures.
- 3) in colours (NS-2-C). Following a decade of experiments, in 1897-1904, all of

England and Wales, save the Isles of Scilly and Man, was published in colour, in 290 sheets, achieved by drastic combinations in some areas. Colours were: outline in black, water in blue, hills in brown, contours in red, roads in burnt sienna - which varied in shade according to the date at which individual sheets were printed. Sheets 1 to 73 used green for woods, in addition.

- 4) District maps. At least 56 of these were published, as lithographic transfers from copper. There are two basic groups:
  - a) NS-2-DR: outline, with burnt sienna roads. Most NS-2 district sheets were of this type.
  - b) NS-2-DC: fully coloured, as for NS-2-C. Only a few such sheets have been traced (6).
- 5) As indexes to 6" (NS-2-I-6) and 25" (NS-2-I-25) mapping. 207 sheets were issued in 1898-1904, each being available in both 6" and 25" index formats. They were printed in colours, needing five printings, and publication seems to have been determined by the incidence of first revision of county 25" mapping, so that some sheets may be encountered in various incomplete states.

#### The Third Edition of the New Series (NS-3)

All 'Third Edition' sheets are titled thus in the top left hand corner. They may be distinguished from NS-2 by use of a symbol for windpumps, and, from late 1909, by the use of railway station symbols (Fig. 3). The various forms derive from a revision of 1901-12.

- 1) Engraved, in outline (NS-3-0). 346 sheets issued in 1903-13.
- 2) Engraved, with hills in black or brown (NS-3-H). 329 sheets issued. No new hill sheets were published after October 1911, sales being very poor.
- 3) In colours: small sheet series (NS-3-SC). 95 sheets issued in 1903-7, when this was superseded by NS-3-LC, to which it was very similar in design. NS-3-SC sheets may best be distinguished from NS-2-SC by the reversion to the engraved style of railway symbol (Fig. 4), and by the universal use of green for woodland.
- 4) In colours: 'Large Sheet Series' (NS-3-LC). 152 sheets, mostly 27" x 18", issued 1906-13 and denoted 'Large sheet Series' in the top right hand corner. Sheets 49, 118 and 128 were re-issues of NS-3-SC combined sheets. (Here, 'Large Sheet Series' denotes format, not a generation).
- 5) Black Outline Edition (NS-3-LO). This consisted of the outline and water plates of NS-3-LC, printed in black, and 55 sheets are known to have been issued in c. 1917-19, when it was apparently abandoned.
- 6) District sheets. There are three basic groups:
  - a) NS-3-DR: outline with coloured roads (cf NS-2-DR). 14 sheets known so far.
  - b) NS-3-DC: generally in the same style as NS-3-LC; 22 sheets are known.
  - c) NS-3-DE: various experimental sheets, published c.1914-20, and related to the Killarney experiment in Ireland. Some, such as Ilkley and Dorking, anticipate Popular Edition tourist sheet design, whilst others are closer in style to Popular Edition regular sheets.

#### The New Series Fourth Edition (NS-4).

In 1909, a third revision of the New Series was started, in Kent, for the 'Fourth Edition', but work was apparently halted in 1911. Sheets 273, 274, 289, 290, 305, 306 and 321 were published in outline (NS-4-0); sheets 273, 274, 289, and 290 were also issued with hills (NS-4-H). Sheets 271, 272, 287, 288, 304, 320, 330, 344 and 345 were revised but not published. The published sheets are titled 'Fourth Edition' in the top left hand corner, and the specification is generally the same as for later NS-3-0 issues. No coloured 4th editions are known. This '4th edition' is a distinct generation, belonging neither to the Third Edition, nor to the Popular Edition.

#### SCOTLAND

Until the coming of the Scottish Popular, all Scottish 1" maps were drawn upon the Bonne projection, and had one basic set of sheet-lines.

### Scottish First Edition (S-1)

Published in two forms:

- 1) Outline with contours (S-1-0), published 1856-87.
- 2) 'With hills' (S-1-H). Hachures, no contours, published 1856-95.

There were 132 sheets, numbered 1 to 131, plus 57A, derived from 6" or larger scale surveys of 1845-78. Sheets 13, 20, 98 and 99 were issued initially in incomplete form, and sheet 32 appeared in 1858 with 'shaded zones of altitude', or 'illuminated contours'. Early states of sheets covering the Isle of Lewis have an independent numbering system, apparently abandoned in 1862.

### Scottish Second Edition (S-2)

All the Scottish sheets, except for 123, were revised in 1894-5, and published as follows:

- 1) In Outline (S-2-0). Specification generally akin to NS-2-0, though some symbols, such as those for contours, remain similar to those on S-1-0.
- 2) With hills (S-2-H). 130 sheets (42/50 and 57/57A being combined) issued 1898-1903, printed from zinc or stone, with outline in black and hills in brown. Sheet 123 was included in its unrevised (S-1) form. In c.1904, sheets 1, 2, and 3 were issued with engraved hills.
- 3) As 6" and 25" indexes. 101 sheets issued in both 6" index (S-2-I-6) and 25" index (S-2-I-25) form; four more were issued in S-2-I-6 form only.
- 4) District maps: (S-2-DR). Three known. There was no Scottish equivalent of NS-2-C.

### Scottish Third Edition (S-3)

The various forms derive from a revision of 1901-10, and specifications are generally as for NS-3 equivalents. All are titled 'Third Edition'.

- 1) Engraved, in outline (S-3-0). 131 sheets issued 1903-12; 42/50 were combined.
- 2) Engraved, with hills (S-3-H). 104 sheets issued prior to the abandoning of hill-map publication in October 1911.
- 3) In colours (S-3-C). 99 sheets, some being combinations, were published in 1904-13, and covered almost everywhere except the Outer Hebrides. They are distinguished by the substitution of a blue tint for the water lining used on engraved equivalents, but otherwise resemble NS-3-LC.
- 4) District maps. As for England and Wales, there are three groups:
  - a) S-3-DR: outline with coloured roads. Two sheets known.
  - b) S-3-DC: generally in the same style as S-3-C. Four sheets known.
  - c) S-3-DE: experimental sheets. Nine known.
- 5) 'Black Outline Edition' (S-3-OB). 66 sheets issued, c.1917-19. Unlike NS-3-LO, this derived directly from the engraved outline plates.

### Scottish 'Fourth Edition' (S-4)

In 1910, sheets 1 to 5, 26, 33, and 34 were revised as part of the third revision of Scotland. Sheet 26 was published in Outline (S-4-0) in 1912, and subsequently in Black Outline (S-4-OB). No other Scottish 4ths are known.

### NOTES

- (1) J.B. HARLEY, The historian's guide to Ordnance Survey maps, (1964) p.16, note 9. Both Dr. Harley and Mr. Guy Messenger have given useful assistance with this paper. To keep footnotes to a minimum, it may be assumed that almost all my statements derive from the maps themselves, supplemented by OS annual reports and catalogues. Most of my research was done using the British Library and RGS collections, to which institutions' respective staffs I express great appreciation.
- (2) The Isle of Man was originally to have been covered by sheet 100, but it almost certainly never bore this number, being published subsequent to the 1872 decision to produce the New Series. As well as outline and hill forms, this sheet appeared

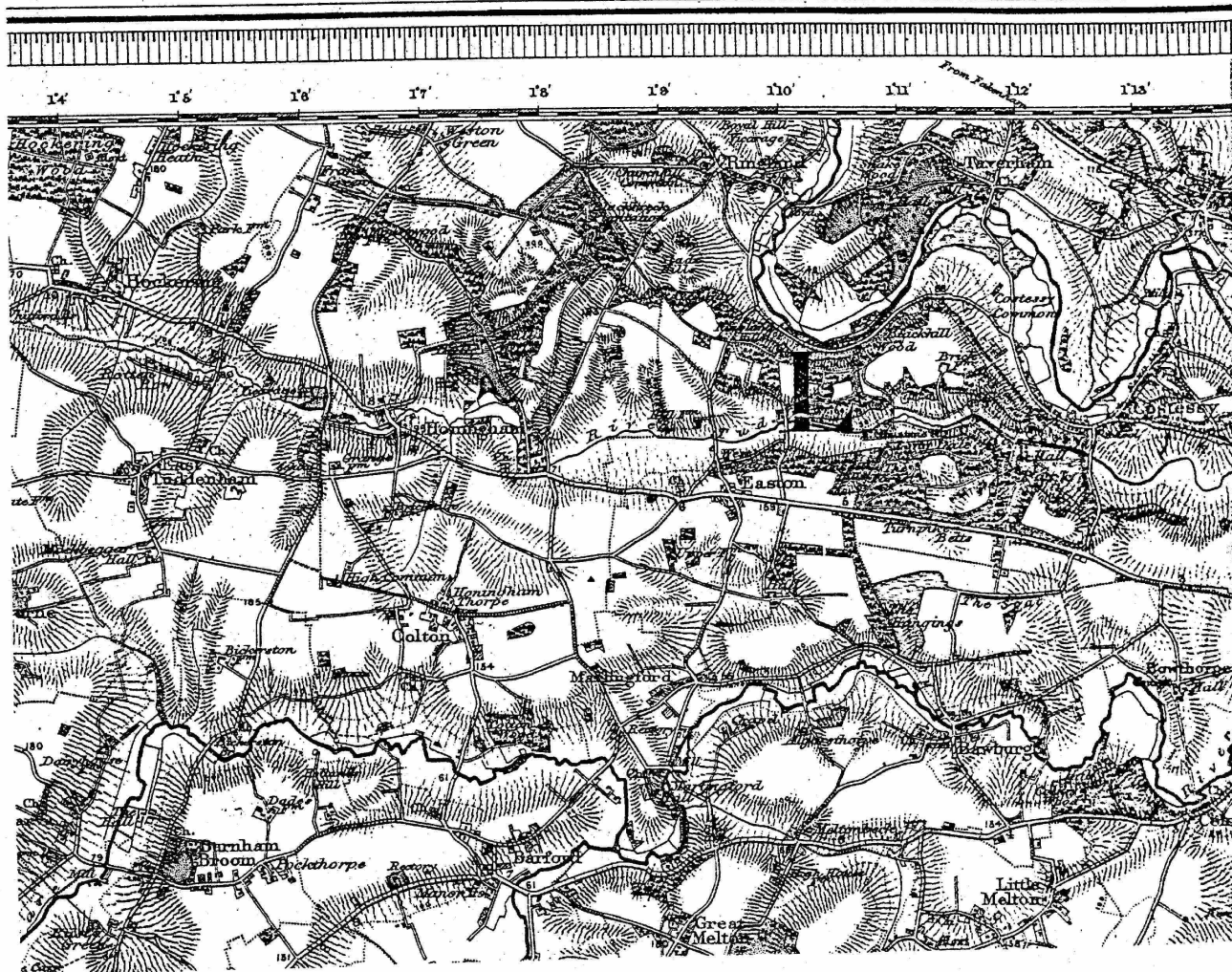
as an index to the Manx 6" maps. No revised form of this sheet was published 'with hills'.

- (3) The three probably issued in hill form only were 91NW, NE, SW, (later 58, 59, 66). All three were re-engraved in the late 1890s. Another variation was represented by the nine sheets - 98NW, NE, SW, SE, 99NE, SE, 101SW, SE, 102SW - published with 'shaded contours' (see Sheetlines no.3, pp 10-11).
- (4) Although the date of introduction for separate hill-plates is usually given as 1889, no regular issues of sheets with separate hill-plates have been found dated earlier than late 1892. The change-over was probably delayed by the slow speed of hill-engraving. The question of separate hill-plates is an extremely complex one that is hard to summarise satisfactorily.
- (5) It is not yet clear whether 90 was reissued as a complete NS-1 sheet or not.
- (6) I have not been able to go into the District Map question as thoroughly as for the regular sheets, so my totals for these are provisional only. Guy Messenger has given me some useful assistance here.

ADVANCE EDITION WITH HILLS PHOTOZINCOGRAPHED

## NORWICH

(AYLSHAM)



Part of 1" map sheet 161, Norwich, 'Outline engraved and transferred to zinc. Hills photozincographed'. Published 1892.



# NOTES AND QUERIES

Note on the '1941 style' of coded imprint adopted by the Ordnance Survey and War Office. By Peter Clark and Ian Mumford.

An exchange of correspondence between Geographical Section General Staff, War Office and the Ordnance Survey in October 1941 set out an agreement that each should use a form of coded imprint derived, during the preceding year or two, from the OS's pre-war practice. Henceforth maps were to carry an imprint in the form: 10,000/4/41/A which would indicate 10,000 copies printed at Adams and Shardlow in April 1941.

The practice of including the month is stated to have been 'recently adopted', but presumably no later than April 1941 since that month is used in the example quoted in one of the letters.

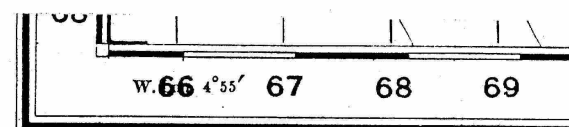
The tabulation of firms and OS printing offices in the correspondence is as follows:

Name of Firm	Code Letter	Name of Firm	Code Letter
Robinson	R	Philip	P
Mardon	M	Cook Hammond & Kell	K
Waterlow	W	Stanford	S
McCorquodale	Mc	Browne	BR
Laird	L	McLagan & Cumming	McL
Johnston	J	Greenslade	G
Forman	F	B. Johnson	BJ
Bartholomew	B	A. Cooke	CK
Adams Bros. & Shardlow	A	W. Thyne	T
Causton	C	OSO London Road	LR
N. Ireland	NI	OSO Crabwood	Cr
Howitt	H		

These have been tabulated in the order given in the Ordnance Survey's letter WE 6238 of 7 October 1941; it may be conjectured that the sequence represents (except for the last two) the chronological order of allocation. Later the following must have been added to the list:

OSO Chessington	Ch
OSO Waddon	Wa
OSO Esher (Hinchley Wood)	E

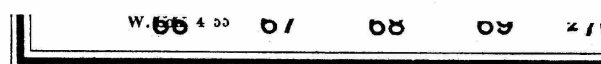
There were probably others and it would be most useful if members finding other code letters would notify Peter Clark, 23 Merrilyn Close, Claygate, Esher, KT10 0EQ.



W.O. 10000/39.

Ministry of Transport "A" Roads.....	Good	Bad	Rail
Other Motor Roads.....	Good	Bad	"
" " narrow.....	Good	Bad	"
Minor Roads.....	Good	Bad	Min
Bridle & Footpaths.....	Good	Bad	Elev
Unfenced Roads are shown by dotted lines	Good	Bad	with
Slopes steeper than 1 in 20.....	Good	Bad	Wood
Toll Gates.....	Good	Bad	Orch

Geographical Section, General Staff. No. 3908.  
Published at the War Office, 1933.



Ministry of Transport "A" Roads.....	Good	Bad	Railways, 1
Other Motor Roads.....	Good	Bad	" S
" " narrow.....	Good	Bad	Mineral Ls
Minor Roads.....	Good	Bad	Electricity
Bridle & Footpaths.....	Good	Bad	(with pylons)
Unfenced Roads are shown by dotted lines	Good	Bad	Wood.....
Slopes steeper than 1 in 20.....	Good	Bad	Orchard.....
Toll Gates.....	Good	Bad	

W.O. 10000/40. 10,000/4/41.A

Geographical Section, General Staff. No. 3908.  
Published at the War Office, 1933.

GS GS 3908 sheet 72. Standard pre-war military version of the Scottish Popular Ed. with typical pre-war imprint. It was actually printed by OS

GS GS 3908 sheet 72, War Revision 1940 showing old and new style imprints.

A SPECIMEN of the PRINT HANDS,  
*for the INSTRUCTION of the CADETS, in the*  
 CORPS of ROYAL MILITARY SURVEYORS and DRAFTSMEN,

*Engraved by desire of*  
 LIEUTENANT GENERAL MANN,  
 INSPECTOR GENERAL OF FORTIFICATIONS.

-10-

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

a b c d e f g h i j k l m n o p q r s t u v w x y z

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

a b c d e f g h i j k l m n o p q r s t u v w x y z

*Roman Numerals*

I. II. III. IV. V. VI. VII. VIII. IX. X. XI. XII. XIII. XIV. XV. XVI. XVII. XVIII. XIX.

*Ordinary Figures*

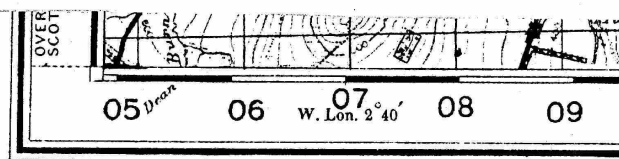
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

*Stamp Alphabets*

a b c d e f g h i j k l m n o p q r s t u v w x y z

Venusque Tver Brizen Ajazzo Corbeck Hattunslade Della Warsaw Kopye Aggiechuy

E. Boume Sticks Drawing Room Tower



GSGS 3908 sheet 81. War Revision  
1940. Printed by W & A.K. Johnston.

Geographical Section, General Staff. No. 3908.  
First Published at the War Office, 1933.

W.O. Cassini Grid.

74

80

This form of imprint is believed to have been continued in use by the Ordnance Survey until the end of the war, but is found occasionally on early post-war printings. Variants of this form may be found, e.g. W.O. 12000/39.C; 13,000/.C; W.O. 15,000/6/41.; 12,000/39.; 20,000/3/41, particularly in the period from 1939 to early 1941.

The Fifth Edition One-Inch map. From Dr. Tim Nicholson, 187 Russell Court, Woburn Place, London WC1H 0LR.

Richard Dean's article on Fifth Edition sheets (Sheetlines no.4, pp 10-12) is extremely useful as a reference, and here is a little extra information in case it is helpful. I have recently seen some Fifth Edition sheets published earlier than the dates he gives, as follows:

123	Winchester and Basingstoke	1933	(RD's date 1934)
127	Bideford and Bude	1933	" "
136	Bodmin	1933	" "
138	Exeter	1933	" "
145	Torquay	1933	" "

Egyptian Lettering on OS and other maps. From James Mosley, St. Bride Printing Library, St. Bride Institute, Bride Lane, Fleet Street, London EC4Y 8EE.

I have been interested for a long time in the new kinds of printing type that came into use in the early 19th century. One of these - the sans-serif - has become one of the dominant 20th century styles. What has intrigued me has been to find evidence that its reappearance round about 1800 seems to have been due to one or two neo-classical architects and sculptors, particularly to Soane and Flaxman, who were deliberately reviving the sans-serif forms of Greece and Republican Rome.

The use of this style by the OS for Roman antiquities is a nice example of such a 'revival'. The use of the term 'Egyptian', which was also used for the first sans-serif type, is probably due to some crude historical notion of primitive early style of lettering, like architecture, having Egyptian origins.

What I should like, ideally, is some kind of discussion of the merits of using this style on OS maps: that is, why exactly was it thought to be suitable for Roman antiquities? I know that this is hoping for more than one is likely to find, but I shall be most grateful for any suggestions. I should, incidentally, be glad to know of any use of a sans-serif letter on a map or anywhere else between 1790 and 1810.

Editor's note: The earliest printed example of alphabets which has any relevance, albeit indirect, to the Ordnance Survey, is an engraved sheet, 33.8 x 30cm (hxb), dated 1817 or earlier (see illustration on centre pages) which is preserved in the Map Room of the National Library of Scotland. It will be seen that this contains no reference to, nor example of, Egyptian or sans-serif lettering. The earliest use of such writing on OS maps appears to have been on Ordnance Surveyors' Drawings 306, 308 and 309 (in the British Library Map Library) and was engraved on the First Edition 1" sheet for Caernarvon, 1816 (c.f. C.W. PHILLIPS, 'Archaeology in the Ordnance Survey 1791-1965, London 1980). Mr Mosley would be pleased to hear from anyone who is aware of an earlier use than this, and also of the term 'Egyptian' itself.

New Series 1" maps. From R. Oliver, 'Elmwood', Lunghurst Rd, Caterham, Surrey, CR3 7EG.

Richard Oliver is investigating the history of the New Series and the Scottish 1" before



1920, with a view to producing a bibliography of states, and would be glad to hear from any owners of such sheets, with a view to their being recorded.

Third Edition 1" maps. From Guy Messenger, 27 South View, Uppingham, Leics., LE15 9TU.

Guy Messenger is making a particular study of the various coloured 3rd editions, and would be glad to hear from any owners of such sheets who have not as yet contacted him.

Hand-colouring of OS plans. From Wally Cowan, 35 Hobson Way, Holbury, Southampton.

With reference to the enquiry on p.7 of Sheetlines no.4, I believe that the methods of hand-colouring in use in the nineteenth-century were the same, or similar to, those used today, in areas where colour-coding is used.

It is simply the water-colour artist's method for obtaining a consistent tint. A colour code is made (see the example below, which is currently used in the Boundary Department), and the operator will just mix up the correct shade from block colour in a palette and test the consistency on a scrap of paper. This was certainly the method used when the colouring section was in existence, and like everything else on the OS it is said that usually there was one, or possibly two people expert at this, and it would have been accepted that old Joe Bloggs or young Stan White would mix up your wash.

It does seem strange to think that colourers' (the lowest form of Drawing Office life!) work when looked at a hundred years on is presumed to have been based on sophisticated methods. I think I am right in saying that the first women employed on the Survey were taken on in the Colouring Department - ladies have come a long way since then!

Editor's note: Wally Cowan has just retired from the OS Boundaries Section.

#### BOUNDARY COLOUR CODES

*ANTAR.*

#### NATIONAL

*Fluorescent Red* 3

#### COUNTY / REGION / I. AREA

*Viridian* 3

#### DISTRICT

*Windsor Violet* 3

#### LONDON BORO

*Perm. Blue* 3

#### WARD WITH CP / C

*Perm Blue* 1.5

#### PARLY CONST

*Gambodge (020)* 3

#### EURO CONST

*Charcoal Grey* 3

#### PSD

*Water proof in* 1m

*Waterproof* straight

DO NOT USE FOR LINEWORK  
LINE GAUGE AND COLOURS ARE  
NOT CORRECT FOR COPYING

Extracts from the current Boundary Colour Codes. The colours are, top to bottom, left to right: Fluorescent red, viridian, Windsor violet, Permanent blue, ditto, gambodge(020), charcoal grey.

## REPORT ON THE SOUTHAMPTON MEETING, 20 October 1982

Ten members of the Society gathered at Ordnance Survey Headquarters in Southampton to see how the collectors' maps of tomorrow are being put together with the high technology of today.

From the introductory words of welcome by our first Honorary Member, the Director General, Walter Smith, we were given most generous attention by the Survey staff. We quickly forgave our first speaker for suggesting that old maps were practically useless. After all, in the context of continuous revision, his theme, it was fair comment. This talk had been preceded by an excellent audio visual presentation about the work of the Survey and was followed by an opportunity to stretch our legs as we explored the labyrinthine building. The first stop was the Air Survey Unit, much contracted now that the mammoth task of resurvey is virtually finished. With metric contouring almost complete for Great Britain the unit now occupies its flying season with numerous revision tasks on small targets. Since on average only fifteen days a year are suitable for high altitude photography, the trick is to be at the right place at the right time.

Through a room sporting several generations of stereoplotting machines of varying sophistication we paused to watch a solitary photogrammetrist hard at work. We were assured that his next machine would require fewer contortions of him. A good and relaxing lunch gave members a brief chance to discuss their latest discoveries; then we were whisked on for a whirlwind tour of the digitising room. Here we were able to see what is actually involved in a practical sense in translating the linework of a traditional large-scale plan to a self-effacing piece of computer tape. This work was being done on relatively antiquated digitising tables but the next stage was most impressive as we watched the digital tapes being reconstituted on a VDU at a pace which would have made a First Edition engraver's eyes water. This interactive system is at present reserved for editing the freshly digitised maps. I think, given the chance, some of us would have liked to enter bits of our own personal fantasy mapping into the nation's geographical data base!

But a new venue was waiting, and we hurried on to the small-scales compilation section, to learn how Landranger, Routemaster and Routeplanner are assembled from their component overlays. This was more traditional cartography with most of the linework scribed by hand, although the Routeplanner may be going digital in the future.

Our last visit brought us back to the roots of the Ordnance Survey, with an all too brief glimpse at the OS Record Map Store. Although there was little time to plunder its treasures, we quickly established its potential, and I am sure some of us will be returning in the future to pursue individual enquiries.

As we swallowed a final cup of tea, and collected our complimentary Ellis Martin posters, Peter Clark, no stranger to the premises, summed up our feelings by saying that on this occasion the Survey had 'done us proud'. Sincere thanks to our hosts and guides for the day.

Bob Parry.

## REPORT ON THE EDINBURGH MEETING, 20 November 1982

This was our second meeting in the National Library of Scotland's Map Room, a venue now celebrated for the wonderful hospitality laid on for CCS members, 22 of whom arrived from diverse locations, many far removed from Edinburgh. In the morning session, Mike Miller and Alan Godfrey gave short presentations on their recent visits to the island of Ireland, and this was followed by an exposition by Brian Garvan on the intricacies and pitfalls of cartobibliographical scrutiny of the  $\frac{1}{4}$ " Third Edition series. Their reports are given below.

### The Irish Ordnance Survey: a short note

My comments on this subject arise from a general interest in Irish OS maps and, in particular, from a recent visit to Phoenix Park. One would not, of course, attempt to cover the ground so well documented by John Andrews - according to the staff at Phoenix Park, Professor Andrews knows more about the material in that office than any member of the staff as he virtually lived on the premises for fifteen years. The wealth of historical material still retained at Phoenix Park is enormous.

The products of the Ordnance Survey of Ireland in the years following 1922 did not compare favourably with the great achievement of the early 6" maps. As examples to contrast with the 1913 Killarney sheet produced in Southampton can be shown two small Killarney sheets (no.173) published in Dublin in 1949 and 1953. The detailed differences in the Irish 1" maps are comparable to those unravelled by Yolande Hodson, and now by John Manterfield for England and Wales. The Irish sheets were basically a reduction from the 6" sheets and the survey dates from the 1830s and 1840s. I was in Kilkenny a year ago, and in a shop displaying a sign of Ordnance Survey Agent, I enquired if they had any old maps and received the response that all Irish Ordnance Survey maps were old!

At the present time the Director of the Ordnance Survey is a civil servant based in central Dublin. The Deputy Director and his deputy are serving army officers based at Phoenix Park. I was fortunate to meet Commandant Kirwan, the Deputy Assistant Director. In the postscript to his book John Andrews, writing in the early 1970s, suggested that in the field of policy Dublin was ahead of the rest of the British Isles, but not in actual achievement. Commandant Kirwan told me of the extensive re-equipping which had recently taken place at Phoenix Park, and today they produce maps for commercial concerns as well as Ordnance Survey material. A wide range of scale is available in both imperial and metric measures, although the 1" and 6" sheets are no longer being printed. Recent examples of their work are this index sheet for the 1:1000 sheets for Dublin City and a 1:5000 sheet of County Limerick (Map 4866). At the time of my visit (October 1982) this was the only 1:5000 sheet available. City maps of Dublin, Cork and Limerick at scales of 1:20,000 and 1:15,000 as well as various historical and geological maps are also produced.

M. Miller

#### The Ordnance Survey of Northern Ireland

The main purpose of these few words is to give a brief picture of the Ordnance Survey of Northern Ireland and its activities, and to create a better awareness of a) its existence and b) the high quality of its work. Many people still believe it to be an outpost of Southampton; others associate it with the truly awful maps that were produced 20 or 30 years ago in Dublin. In fact, the OSNI is a totally independent organisation, working under the umbrella of the Department of the Environment, Northern Ireland, and its map specifications are comparable to, and sometimes superior to, those of Southampton.

The OSNI was set up in 1922 and now has offices in Ladas Drive, in a south-east suburb of Belfast. It has, effectively, five offices, two based at Ladas Drive and responsible for Belfast North and Belfast South, the other three are based at Omagh, Portadown and Coleraine. These have the responsibility for all fieldwork in their areas, from the scale of 1:200 upwards, including archaeological work. There are also presences at Larne, Kilkeel in the south-east, and Enniskillen in the south-west. It is nice to know that the far-flung outpost to which Yolland was exiled is still in existence! There is also now a drawing office in central Belfast owing to lack of space at Ladas Drive.

The OSNI has a large photogrammetric side, with five stereoplotters. It is responsible for all its own work with the exception of colour-printing, which is done at Southampton or Dublin. The air survey arrangement is especially interesting. This is difficult to plan in advance because of the lack of clear skies. A 'plane belonging to an air taxi firm has therefore been specially adapted and the OSNI are able to use this at very short notice (sometimes less than 2 hours!). The average length of flight is just two hours and that is all that is paid for. Some 30 hours air survey work is achieved in a year, which is all that is needed, at an annual cost of about £6000.

All maps produced since 1950 are based on the Irish Grid, and the town areas have been resurveyed in those years. A programme of continuous revision is now taking place, together with resurvey of the rural areas remaining.. The scales are the same as in Great Britain but there is a tighter specification for urban areas: every settlement with more than 3000 inhabitants is covered at 1:1250 - this compares with the GB level of 1:1250 coverage of population areas of more than 20,000.

Since June 1981, the publication methods of these large-scale plans have been radically changed, following the acquisition of a Rank Xerox 2080 plain paper copier. 1:1250 and 1:2500 maps are now photocopied on demand, thus removing the need for storage. It is very difficult to predict the demand for large-scale plans, it can be 10 or 80 copies

a year, sometimes with unexpected surges. The use of the 2080 machine means that high quality copies (far superior to Southampton's SIM print-outs) can be supplied to order. There are no agents in Northern Ireland. Large-scale plans are supplied only from Ladas Drive, either over the counter or by post; a two-day turnaround is the 'norm'. OSNI large-scale plans are now landscape in shape rather than square, and slightly smaller than the GB sheets. The 1:2500 sheets cover an area 1200 x 800m - 96 hectares rather than Southampton's 100 hectares.

The 6" maps cover an area 9.6 x 6.4km. It is interesting to note that the grid lines do not go across the built-up areas. Perhaps of greatest interest in this scale are the series of town maps being published. The 1:10,000 sheet covering Belfast was a considerable success and other towns requested similar maps. Lisburn (1:8,000) and Ballynahinch, Downpatrick and Newcastle (1:10,000) are the first to be published. The style is similar to those produced by Southampton, but OSNI claim priority for the design concept. More are to follow. Derry is due in March 1983, and Newry, Bangor and Newtonards are other possibilities for next year. Eventually it is hoped that all major towns will be covered.

There is no 1:25,000 mapping of Northern Ireland, but the OSNI have published a map at this scale of The Mourne Mountains which is reduced from 1:1250. This map is much the equivalent of the Outdoor Leisure Maps. In 1978 work started on a new 1:50,000 series in conjunction with Dublin. OSNI is responsible for the 18 maps that cover at least part of the Province; these are due for completion in Spring 1984. There will be some delay before the Republic publishes its maps, since their 1:1250 coverage is so out of date. There is, however, a chance that a Kerry map will be published next year.

Northern Ireland still has the 1" maps from the Third Series (equivalent to GB's Seventh Series, and of the nine sheets, number 3 is now out of print and sheet 9 is due to go out of print in the Spring. Finally there is a pleasant 1:250,000 map with a quantity of tourist information on the back. This has been well-researched, showing that when you have a link with a tourist board you make sure they get their facts right (a stark contrast with Southampton's Maritime England Map). The title - Ireland North - has apparently met with some criticism, showing how carefully it is necessary to tread.

OSNI are responsible for many administrative maps, often doing the work which County Councils would be responsible for on the mainland, and there are very close links with various departments. The staff of 220 is drawn from both sides of the religious divide, and all work together. The Survey works on a volunteer basis and men are never forced into danger areas, but there are a few no-go zones. For instance, in the Bogside area of Derry, the work is carried out by two surveyors who live there. Some ill-feeling has, however, been caused when surveyors have discovered that they have been under security surveillance for several days. There is, of course, always the risk of stumbling on something unexpected.

One van has been hijacked during the Troubles. However, it is reassuring to know that the IRA showed some respect for cartography and allowed the surveyors to remove all their equipment from the van. The empty vehicle later formed part of a barricade and ended up in the Newry Canal.

Alan Godfrey

#### The Quarter-Inch Series, Third Edition

The talk covered the period from the beginning of the publication of the maps in 1919 to 1925/6, about mid-way through the life of the series, and the basis of the presentation was an examination of maps in three private collections which together provided 100 examples of 21 published maps. Nearly half of these examples were of different states, and other states of some sheets are known to have been published.

Originally the series was known as the Quarter-Inch 'New Series', but it was also referred to as 'The New Layered Map', and the British Library Catalogue refers to it as 'The Layer Map'. Later it became known simply as the 'Third Edition (New Series)', and this should not be confused with the 'A' Series of the 3rd edition which was published later towards the end of the 1920s.

The Third Edition was promoted as 'an entirely new production and is thoroughly up to date as a result of the recent revision on the ground [which] is incorporated into it' (OS Catalogue 1924). In fact sheet 1 and parts of sheets 2 and 3 were compiled from



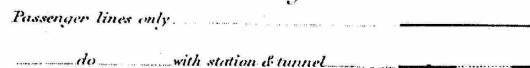
## CHARACTERISTIC SHEET

for the  
REVISED FOUR-MILE MAP  
of  
GREAT BRITAIN.

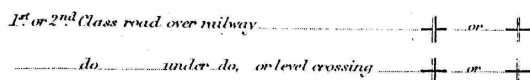
## Roads



## Railways



Bridges, no symbol, but are indicated thus—



Double stream, Single stream



Site of Roman Road

Canal

## Ornament



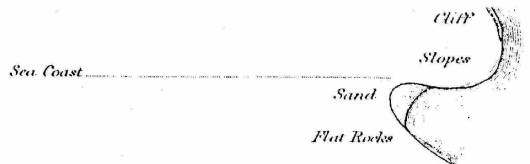
Parks &amp; Ornamental grounds

Churches

County Boundaries

Trigonometrical station

Heights in feet



## Character of Writing

County names **C** \*  
 Marginal County names NORTHUMBERLAND  
 Large & Minor District names GOWER \* Borough \*  
 Large Towns LIVERPOOL \*  
 Medium do DOVER  
 Other do WATFORD  
 County & Cathedral do WINCHESTER  
 Parish Villages Rolvenden  
 x Other Villages Bedmout  
 x Mansions, Farms, etc. Holwood  
 Royal Parks, Forests, & Large Moors ASHDOWN \*  
 Minor do do Woulmer Forest \*  
 Principal Lakes, Bays, & Rivers at mouth RIVER MEDWAY  
 Minor do do Lower Water  
 Rivers, inland River Tilt  
 Large Islands ISLE OF SHEPPEY \*  
 Medium & Minor do Fair Isle \* Coquet Island \*  
 Principal Headlands NORTH FORELAND  
 Minor do Foulness Point \*  
 Important Ranges of Hills MENDIP HILLS \*  
 x Minor do Buckholt Hills  
 Important Valleys TEESDALE \*  
 x Minor do Tainwick Valley  
 Railways SOUTH WESTERN RAILWAY  
 Antiquities ROMAN or Subsequent  
 Important Sands FOULNESS SANDS  
 Minor do St Peters Sands

From the collection of the Map Room, NLS,  
dated April 1900. Size of original, ca  
42 x 30cm (hxb).

\* Gauge according to size and importance.

\* Sometimes may be advisable to increase gauge.

the 2nd revision, 1902-04, and the remaining sheets of England and Wales were produced from the 3rd revision. Scottish sheets were also drawn from the 2nd revision but incorporated a rapid road revision which was carried out during 1921 and 1922, giving rise to the Ordnance Survey's description of it as 'the most useful Motoring Map produced by the Ordnance Survey ... undoubtedly the finest map ever produced of the country on this scale' (Description of Small Scale Maps, 1924), a statement which was clearly designed to boost sales.

For England and Wales the 3rd edition replaced the 2nd edition Large Series which originated as an engraved 25 sheet series in 1902, and was later recast as 10 sheets in 1912 to form the 'Large Series'. It has been said that this was never a satisfactory map and by the appearance of the 3rd edition in 1919 it was, of course, becoming quite out of date. There were five major criticisms of the 2nd edition Large Series: 1) it was too crowded in many places, 2) the depiction of roads was poor, 3) the blue drainage was overprinted on black outline and thus gave registration problems, 4) there were no contours, and 5) the hill shading (from brush drawings) was in places highly generalised and misleading.

The 'New Series' was prepared from drawings on the  $\frac{1}{2}$ " scale which were then reduced to  $\frac{1}{4}$ ". The maps for England and Wales were printed from stones and those for Scotland by heliozincography. The chief points to note about the new maps are 1) the abolition of hill-shading and the substitution of contours at 200' vertical interval, 2) the introduction of the layer system, 3) the comparative clarity of detail as a result of the main roads only being coloured (in a strong red), the lack of a green wood symbol and the water being printed from a separate plate. The whole of Great Britain was covered in 21 sheets: 12 for England and Wales, 10 for Scotland with sheet 1 being common to both series.

One of the purposes of my study was to evolve a suitable record creation system for each sheet in the series, and, as is usual in such cases, there were several false starts before the final data sheet emerged. Initially the sheets in my own collection were noted for differences, but the closer the scrutiny, the more discrepancies were found. Comprehensive data forms were devised, but one of the main problems was to discover the precise date that various specification changes were introduced. I therefore decided to try to establish the relationship between changes of specification and dates by putting all the maps into chronological sequence of production. Using other sources of information to flesh out the details recorded on the maps and, in the case of publication dates, to determine the correct dates (some sheets carry different publication dates on different states of the same map) the following picture emerged:

#### England and Wales

Sheet 10	Oct. 1919	First sheet published (noted by Johnston when speaking at the Royal Geographical Society in 1919)
11	.. ..	
9, 8, 12	1920	Recorded as 'published' on OS index dated 1920
4, 5, 6, 7	1920	Recorded as 'to be published before the end of 1920' on the same OS index as above.
1, 2, 3,	1921	All sheets were published by the end of 1921.

#### Scotland

Sheet 1	1921	See England and Wales sheet 1
2, 6	1922	OS Description of Small Scale Maps 1923.
3-5, 7-10	1922/3	

So much for the order of publication of 3rd edition material; the sequence of specification changes were still to be determined, and closer study revealed the following patterns:

Sheets 8-12 form a block with the following similarities:

'HEIGHT IN FEET' and a seven band layer system; and notable absences occurring subsequently were no red station fill; no magnetic variation diagram and no aerodrome symbol.

Sheets 4, 5 and 7 have a revised layer system with 8 bands.

Sheet 6 has the red station fill added (1920).

Sheet 1 has the height in feet and metres and a metric scale-bar (1921).

A price statement appears on some examples of sheet 11 with a gap where it has been deleted in a 1921 reprint of sheet 10, but it is not certain whether this is due to the use of a duplicate plate dating from 1918/19 or not. One 1923 reprint of sheet 10 gives the publication date of the map as 1918 instead of 1919, and the series title is in italic type in the style used for the 2nd edition Large Series (see illus.); the legend also reflects the earlier series in that it uses the word 'Routes' instead of 'Roads'.

Other specification and marginal changes noted were a) two types of magnetic variation diagram, b) aerodrome symbol added in December 1921 (OS Circular), c) a note on surveyed contours added on a 1923 reprint of sheet 5, d) a new publication note on a 1924 reprint of sheet 11, e) differences in the OS Datum note on a 1924 reprint of sheet 8, f) a Seaplane Station symbol added to a 1925 reprint of sheet 9 and many more!

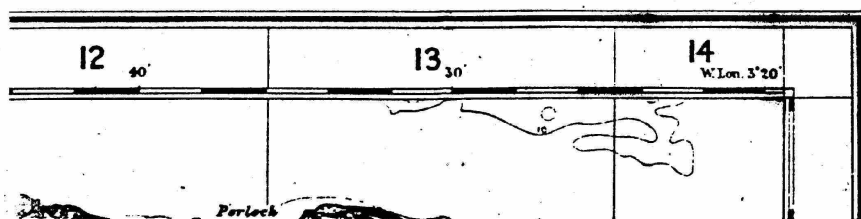
The following advice, arising from the analytical work so far undertaken on this series, may be useful to others attempting the same kind of project:

- 1) Do not take it for granted that a full set of maps in a large public library gives the complete picture of the publication history. Copyright libraries, for example, often have only the first issue of each sheet. Examples in private collections, gathered at different times, are vital to the understanding of the publication history even of recent OS maps.
- 2) Do not necessarily believe the publication dates appearing on a single example of a map. Sheet 10 of the  $\frac{1}{4}$ " Third Edition has been seen with three dates: 1918, 1919 and 1920 - it was actually published in 1919.
- 3) Do not accept too readily that all printings bearing the same date are taken from the same plates at the same time.

Brian Garvan

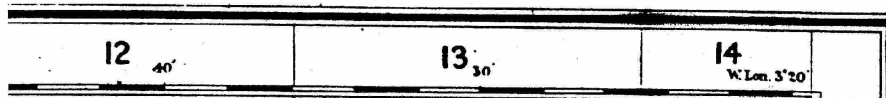
Those of you who were unable to attend the Edinburgh meeting will gather from the short synopses above that the morning was fully occupied! After a filling repast at the Local we returned to an extraordinarily comprehensive exhibition of items which illustrated the chronology of the OS in Scotland. Beginning with the First One-Inch Edition and 6" for Wigtownshire, together with the first 5' plan, also in the same county, the display ranged right through to post-WW2 mapping. Peter Milne who produced this cornucopia of goodies is to be congratulated yet again on a masterly show. Many thanks are due to Margaret Wilkes, the Map Librarian, and her staff for making our visit so very enjoyable once more.

*4-inch to One Mile, Third Edition, SHEET 10.*



The different forms of lettering used for the series title of sheet 10 of the  $\frac{1}{4}$ " Third Edition.

**4-INCH TO ONE MILE, THIRD EDITION, SHEET 10.**



MEETINGS 1983BIRMINGHAM

Saturday 12 February 10.30 for 11.00am to 3.30pm at the Birmingham Central Library, Chamberlain Square.

A small display of local material will be mounted by the Library staff, and Richard Dean will give a talk on his recent work on the Fifth Edition One-Inch map. Do also bring along your latest acquisitions, etc.

If you wish to attend, please inform Alan Godfrey, 57-58 Spoor St., Dunston, Gateshead NE11 9BD. Tel.0632 608546.

LONDON

Saturday 23 April Provisional date for the Annual General Meeting, to be held at the Department of Geography, Birkbeck College. Full details will be in the next issue of Sheetlines.

A further meeting is being arranged for June, details will appear next year.

BACK NUMBERS OF SHEETLINES

All back numbers, with the exception of no.1, which is out of print, are available at a cost of 50p each, including post and packing, from:

Alan Godfrey,

MEMBERSHIP

Membership of the Society is open to all at an annual rate of £3 for UK members and £5 for family, corporate and overseas (payable in sterling, please) members. The membership year begins on 1 March; those who join after 1 January will be considered as paid up for the coming year. Cheques should be made payable to 'The Charles Close Society' and sent to Alan Godfrey at the above address.

CONTRIBUTIONS to the Newsletter are welcomed. Typescript, double spaced, is preferred, but legible manuscript is also acceptable. The printed or unpublished sources of information given in any text should be quoted in full and supplied as footnotes. Any member needing assistance with this is welcome to ask the Editor.

All contributions should be addressed to the Editor:

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o/o The Charles Close Society  
Map Library  
British Library Reference Division  
Great Russell Street  
LONDON WC1B 3DG