



SHEETLINES

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'I am SUPERPLAN, map of maps:

Look on me, mortals, and despair!!'

Sheetlines 35

January 1993

FUTURE MEETINGS

Uppingham, Saturday 6th March 1993

Study meeting on the Half-inch map. This will be a participatory meeting studying the various states of the Half-inch map. Those attending will be asked to check their collections for states not on a preliminary listing and to bring any state not in Guy Messenger's collection to the meeting (see Advertisement at the back of this issue). 10.30 for 11.00. Please contact Guy Messenger by the 15th of February for further details: 5, Wheatley Avenue, Uppingham, Rutland, Leicestershire LE15 9SN (Tel: 0572 823313 or David Archer 068688 382 in case of difficulty).

The Charles Close Society - Renewal of Membership 1993-1994

Subscriptions are due by 1 March 1993. Rates are in three bands:

Band 1. United Kingdom and BFPO only - NOT Republic of Ireland

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Please make cheques (£ Sterling only) payable to 'The Charles Close Society', and send them to the Hon. Membership Secretary, (address on back cover).

ADVERTISEMENTS

A preliminary listing of states of the Half-inch map by Guy Messenger. The results of an initial investigation of states will soon be available. It is hoped that members will be able to check their own collections against this listing of large and small sheet series and report any omissions before the meeting on the Half-inch map (see 1993 Programme on page one). Members wishing to attend the meeting can obtain copies from Guy Messenger (see Meetings). Others can obtain a copy by sending a stamped addressed A5 envelope and a one pound coin (or unused postage stamps) to: David Archer, The Pentre, Kerry, Newtown, Montgomeryshire SY16 4PD (Tel: 068688 382).

Wanted: Lancashire 6-inch 1st edition, Sheet 107, (Huyton, Prescott, Rainhill), 1850. Good price for good copy. R.H. Johnstone, 26 Maplin Close, London, N21 1NB.

Wanted: Oxford University Press plastic raised relief maps, based on OS maps. Please contact J.M. Farrar, 33 Northview, Winchester, SO22 5EH.

For sale: the 1991 final issue of the 1-inch 7th Series. Offers please to A.R. Carr, 11 Darley Abbey Drive, Darley Abbey, Derby, DE22 1CC (tel 0332-551761).

(Similar 'small ads' accepted, without charge: please contact the Editor of Sheetlines.)
The Charles Close Society is a registered charity, no. 327618.

(Continued inside back cover.)

CHARLES CLOSE SOCIETY

1993 Programme

Saturday March 6th sees our first meeting of 1993 with a Study Meeting on the states of the Half-inch map. The Half-inch appears to have been one of the most innovative and complicated of any OS map series. Guy Messenger has now produced a preliminary listing of states known to him and would like anyone attending this meeting to bring along any state not listed or lacking from his collection. Copies of this initial listing are available to all members (see Advertisements at the back of this issue). The meeting will focus on the Large Sheet Series (Coloured) for England and Wales. If time allows, the Scottish and Irish series will be attempted. Guy would be pleased to know of any omissions from the listing, if possible before the meeting. This is possibly the first meeting to which every member can contribute, whether they attend or not.

On *Saturday May 15th* the Annual General Meeting will be held in Edinburgh as part of other cartographic activities which should be of interest to members. 1993 is the Bicentenary of the publication of William Roy's *Military Antiquities of the Romans in North Britain*. On *Friday the 14th*, it is hoped that there will be a choice of activities. In the morning, The Society of Antiquaries of London and the RCAHM of Scotland have organised a Symposium on William Roy. As an alternative, it is hoped to have a meeting on modern mapping. A guided coach tour of the Antonine Wall will follow in the afternoon. For anyone arriving early, on the *Thursday* evening it is hoped to have an evening lecture, with a social gathering on the Friday evening. Details are still being finalised by the various societies involved and will appear in the next issue of *Sheetlines*.

There will be no single speaker at our AGM; instead it is hoped that several members will give short (ten minute) talks on either a Scottish or Irish theme of their choice. **Please contact David Archer with offers to speak.** The Ordnance Survey has been very generous in donating a copy of each of the special maps given to the Queen and the Duke of Edinburgh in the Bicentenary year (see *Sheetlines* 31, p.19). These will be displayed and auctioned at the AGM, with proceeds going to Society funds. This will be the only chance many members will ever have of seeing these maps. Arrangements will be made for postal bidding in the auction. Edinburgh is a magnificent city with excellent facilities. Fuller details of the meeting will appear in the next issue of *Sheetlines*.

On *Friday 18 June* there will be a visit to the Whatman paper making concern in Maidstone. For anyone with even a passing interest in nineteenth century Ordnance Survey maps, Whatman should spring to mind as a well known supplier of watermarked paper, such markings often proving vital in dating states of the Old Series One-inch map. As well as seeing modern production methods, it is hoped that a demonstration of watermark production will also be possible.

On *Saturday November 6th* we visit one of our newest members, the National Railway Museum in York. Even before the Society was formed, there had always been a close tie between OS maps and railways. Roger Hellyer has recently used railway information to date states of the Ten-Mile map, whilst railway historians have used OS maps to date railway developments. A lot of members have developed an interest in OS maps through railway interests and vice-versa. Phil Atkins has promised to show some gems from the NRM railway map collection, in addition to Ordnance Survey mapping.

Further details in future issues of *Sheetlines*.

Letter from the Editor

I am SUPERPLAN, Map of Maps; Look on me, mortals, and despair! Some readers will be wondering about this curious misquotation, and as to who the 'mortals' may be. The mortals are they, the ordinary taxpayers, who are unlikely, short of a drastic change in policy, ever to purchase a Superplan themselves.

Neither Superplan nor the organisation which produce it need further introduction, nor, may it be thought, need there be further reference to you-know-what, which last, bearing in mind the Editor's professed distaste for it, expressed in his first epistle (in *Sheetlines* 28), may be thought to be doing very well for itself. Readers who turn to page 37 will see that you-know-what is apparently anticipated for 31 March 1996, about three months after completion of the digital database for the whole of Great Britain. This leads to the natural supposition that you-know-what-else will rapidly follow, as it appears to be doing for the railways and the coal industry. As the present Director General (oh, and Chief Executive: no doubt a you-know-what-else regime will favour the latter) observed, in his remarks to the symposium at the Royal Geographical Society in May 1991, the Ordnance Survey lacks political visibility. It seems to have had its moments in the Battle of the Scales in the 1850s, but since then it has mostly led a quiet life. This may have had its advantages in the past, but it has its disadvantages in an age when something which twenty years ago would have been dismissed as a physical impossibility, and ten years ago would have been a subject for extravagant satire, looks like becoming an unpleasant reality in ten months time, though one wonders if even the peculiar charm and financial wizardry of the grocer's daughter and the bank clerk is quite equal to the task of endowing the railways and coal mines with saleable glamour.

And, as said just now, the Ordnance Survey lacks visibility. The newspapers all write as though there are but two you-know-what-elses, whereas there is of course a third, that succulent little morsel down in SO9 2DH, which three years hence will be all ready to be served to some writer of cheques, perhaps. (An open share offer might attract *undesirables*.) All the devils of subsidy will have been driven forth (quite a lot of them are already UB40 cases), and the house will be all swept and ready for seven fresh devils (not related) to move in.

At this point a little furry creature appears and observes, *en passant*, that the suggestion made by the Director-General in his interview with the *New Scientist* a few months ago, that in pursuit of you-know-what it might be necessary to consider whether it will be possible to maintain mapping of remote areas, might be extended to withdrawing some of the less saleable 1:25,000 *Pathfinders*. Two comments: (1) it is to be hoped that this reflects constructive imagination rather than authoritative suggestion, and (2) Mr Mole did admit that every time such a suggestion is made there are strong protests from the general public. Indeed, yes, and one would have thought that there have been enough thwarted 1:25,000 muggings, garrottings, cartocides, starvations and other plots in the past to make yet a further addition to the tragi-comic catalogue injudicious, if no more. Admittedly, you-know-what is a hungry little beast, but though we mere mortals, who, indeed - let us not forget our lowly status - committed the great sin of *state-subsidising* the National Grid remapping of Britain in the first place, and must self-evidently be punished therefor, may despair of 1:2500, are we to despair of 1:25,000 as well? I understand that sales of Pathfinder 1126 *Gower* have been very good, and it seems a pity that so unpleasant a suggestion should be made at such a juncture, when a prospect opens up of undoing some of the idiocies of 1:25,000 sheetlines. One cannot help feeling that the succulent little morsel might be yet more succulent were attempts to control the flavouring directed less at cutting bits out and more at exploiting what is already there. On page 43 below you will find a murky reproduction of a fragment of a 1:10,000 sheet that acknowledges whence it has come (1:2500) rather than whence its neighbour went (1:25,000). Even in monochrome, such a 1:10,000 that is mindful of its origins is a far more useful and saleable thing than one obsessed with a false destination.

Of course, it may be that I am making a needless fuss about a vain imagining; but, as since 1979 life has imitated what was formerly the more extravagant art, it may yet be necessary once more to show that history is not bunk and that the 1:25,000 is the price of a quiet life. It would taste so nice.

Richard Oliver

THE CHARLES CLOSE SOCIETY'S LATEST PUBLICATION

Roger Hellyer, *The 'Ten-Mile' maps of the Ordnance Surveys*, (with foreword by Yolande Hodson and an appendix by Brian Adams), London, Charles Close Society, 1992, pp.xii, 202, illus., A4, pbk, ISBN 0 870598 12 1, £17.95.

The first thing to draw attention to is what those who are both uninitiated and observant will assume to be a misprint: *Ordnance Surveys*. In fact, the plural was chosen deliberately, as this book covers the ten-mile (1:633,600 and 1:625,000) mapping of both Great Britain and Ireland, and includes coverage of examples produced by the Ordnance Survey of Ireland after 1922. That it does not include any produced by the Ordnance Survey of Northern Ireland is due solely to the fact that none have been produced by OSNI; had they, it would. Otherwise, every ten-mile map that we have met with, and a great many more which hitherto only the author has met with, are to be found here. Almost certainly no other scale of mapping produced by the Ordnance Surveys has generated such a large number of variants; never did so few base-maps (though there are quite a few of those) provide so many happy homes for so many overprints. Anyone who thought that those variants were confined to the 1:625,000 'planning maps' of the 1940s is in for a surprise - or a shock.

There are five main chapters, I, 'Ten-mile maps of Great Britain in the nineteenth century', II, 'Ten-mile maps of Ireland in the nineteenth century', III, 'The Johnston ten-mile maps', IV, 'The ten-mile map between the wars and its metric conversion' (i.e. to 1:625,000), V, 'Ten-mile maps since 1955', and six appendices, including one on Sir Henry James's map of the world, and another by Brian Adams on the projections used for the ten-mile maps. This last is most valuable, and is an important contribution to the study of OS geodesy. Chapters IV and V include discussion of the related 1:1,250,000 map, which in its early days (in the mid-'40s) was closely allied with the 1:625,000 'planning maps'.

Chapter I is concerned with the three-sheet 'index map' to the one-inch, commenced *circa* 1817, and completed in 1884. A perforce short introduction, because of the scanty documentary background to this map, is followed by a detailed description of states. This is possibly the most generally valuable chapter in the book in that, apart from tackling a series of maps which one knew *ought* to be investigated, but which seemed to present frightening logistical problems, it includes extensive lists of railway opening dates, railways being the main changes on the maps. These lists should be of great use to those who need this information in order to date other nineteenth-century maps.¹ There is nothing innovative about this, but here the information is presented in as concise a form as is possible if conventional text is to be used; my feeling is that the only long-term solution to the publication of railway dates is the preparation of a series of suitably-annotated maps, perhaps in atlas form, mostly at the ten-mile scale, but perforce including enlargements of the more complicated areas. Although there is an apparent partial overlap with the railway dating information in the Harry Margary *Old Series* facsimile volumes, the information given here is far more complete and accessible, and for the general user there is really no contest between the two. The actual carto-bibliographical description of the nineteenth century ten-mile map contains at least one point which will be a revelation to most readers, concerning the altered relationship between the south sheet and the middle sheet in the 1830s. As with so much else, that is an episode in the development of the ten-mile map for which no documentary background information has yet come to light.

Chapter II moves to less familiar mapping, that of Ireland. There were two separate maps, of 1838 and 1868, and the main interest in this chapter is the latter, which derives from Sir Henry James's World Map scheme. It is to be regretted that photographic difficulties have prevented some of the interesting materials for this map being illustrated. Appendix 2 gives as much as is known of the other World Map sheets.

Chapter III deals with the maps of both Britain and Ireland produced in the first quarter of the twentieth century, initially under the direction of Col D.A. Johnston. The British maps (in eight or twelve sheets, according to different methods of numbering) were all replaced in 1925-6,

¹ It is a great collective reproach to railway writers and publishers that there is apparently no handy list of railway openings and closures.

but the Irish maps enjoyed a much longer innings; indeed, one printed in 1920 remains on sale. (To find out which you must buy this book, or go to Ireland, but for most readers the former will be the cheaper course.) It ought perhaps to be added that in this and the subsequent chapters there are no long lists of geographical changes between states of the map, as it is considered, rightly, that the print- and edition-codes and other marginalia provide sufficient information to enable states to be identified.

Chapter IV covers rather more familiar ground. In 1925-6 the Johnston map was replaced by a completely redrawn one in three sheets, which was recast on two sheets in 1937 and then converted to the 1:625,000 scale in 1942. It was this map which was first produced in several variations for military and aeronautical use, and then in several more variations as the 'planning series', a family of maps which are probably far better known by repute than by sight, and which include both those which need special pleading, such as *Ministry of Labour local office areas* (1948) and those which do not, for example *Railways* (1946) and (a personal favorite) *Local Accessibility* (1955). One is interested to learn of the considerable number of minor variations in the base maps used: it was not simply a case of preparing one base-map and then overprinting whatever special information was needed. Not the least useful feature of this chapter, and the next, is the inclusion of all available information on the actual number of copies printed. Here, the growth in basic demand for small-scale Ordnance Survey maps during the twentieth century is clearly brought out, and one can see that, however 'popular' the inter-war maps may have been as compared with their pre-1914 predecessors, 'market penetration'² was small compared with their post-1945 successors. Discussion of the 'planning maps' is not exhaustive, but this is a subject which goes beyond ten-mile concerns.

Chapter V covers the new map first published in 1955 and its successors, and brings us as up to date as printers' deadlines allow, mentioning the imminent replacement of the *Routeplanner* by the *Travelmaster*; and if that seems rather terse, that is as much as any of us outside OS know at present. The various design changes (hardly a year went by without some) to the *Routeplanner* are listed in detail, and even those who feel that history is bunk, that anything other than four-colour process printing is an evil to be avoided at all costs, and that the Charles Close Society contains within it dangerous elements, subversive of the Full Cost Recovery utopia, must surely concede that here £17.95 could be far worse spent.³ Otherwise, one is dazzled; is there *really* such a map as *Watsonian Vice-counties of Great Britain*?⁴ Or *The Distribution in Scottish Rivers of the Atlantic Salmon*?⁵

When Roger Hellyer began this project, as a development of his work on the OS period maps, in the winter of 1988-9, it was expected that the result would be a modest pamphlet of some thirty or forty pages, of A5 size. Surely the subject was so finite? Part of the reason for the huge expansion in bulk is due to the inclusion of the original ten-mile 'index map', but even that only accounts for less than a quarter of the text. Half the text is taken up by the post-1925 ten-mile maps, and even then there are variants which catalogues hint at but which even Dr Hellyer's persistence had not, at the time of going to press, set eyes upon. As most of these are issues which probably had a very restricted circulation, it is unlikely that much inconvenience will be felt by those who purchase this book in order to check their own collections, be they never so grand nor so humble; and the listing is so comprehensive that even the grand collections seem to be brought down a peg or two.

And buy it must we all, for there has never been anything like it. It represents a great step forward in carto-bibliography, published by a Society which has made carto-bibliographical innovation a speciality. Before its foundation in 1980, carto-bibliography had been effectively confined to pre-1900 mapping, and indeed mostly pre-1800 mapping; one felt that the only reason the OS One-inch Old Series had merited the treatment it received was because of its

² Yes, your reviewer agrees: a most revolting phrase, in more than one sense.

³ Particularly as that sort of person is bound to treat it as a tax-deductable, or otherwise find some means of making some third party pay for it.

⁴ Indeed yes; they are divisions of counties used for botanical work, and have no reference to anything hinted at in a previous note: that would presumably generate *Vice Counties*.

⁵ Again, yes: the map is in print and is strongly recommended to the curious.

ancestry in eighteenth century county surveys.⁶ The Charles Close Society has done its utmost to ensure that post-Old Series carto-bibliography is Respectable. In 1986 there appeared a crude hand-list of the One-inch Seventh Series, which showed that carto-bibliography could be extended almost into the present with profit; in 1988 we had Guy Messenger's monograph on the One-inch Third Edition Large Sheet Series, which endowed a twentieth-century map series with detailed analysis; and now we have a catalogue which at first sight seems to exhaust the subject, and which, furthermore, is of unprecedented sweep and scope, from 1817 to the present day. It remains only to say that the quality of production is markedly better than anything previously published by the Society.

Richard Oliver

An Author's Apologia (or A Note of Thanks from RH to RH)

A visit to Dublin's libraries seemed an obvious necessity if the Irish chapters in my book on the Ordnance Survey ten-mile maps were to be adequately researched, and I attempted to organise this for November 1991. Arrangements were well in hand in September when the National Library of Ireland wrote to say that they were closed in November. This seemed like going to London when the British Library was closed, and, with the only alternative date but a week away at the beginning of October, I rang Paul Ferguson, map librarian at Trinity College, hoping against hope that he could rearrange my schedule. He miraculously achieved this overnight, and I duly arrived in Dublin.

I quickly found matters most mysterious in the National Library (NLI). I was directed to the map catalogue, but I could not puzzle out why all the card references therein resulted in a book with a map attached (not in itself a bad thing, since such catalogues are all too rare, and such maps difficult to locate). But where were their maps? A notice on top of the NLI catalogue pointed out that many had been withdrawn, though OS maps were still available. The assistants were unable to help further, but Richard Haworth, librarian of Trinity's other map library, the Freeman Library in the Department of Geography, could. He produced a copy of a typewritten summary list of maps in NLI from which we listed a dozen or so likely headings. Armed with actual catalogue numbers, I returned to the NLI, and asked for these items. They now admitted to the existence of Richard's list under their counter, but I had not been shown it because even these OS maps had been withdrawn for conservation. Therefore those I wanted to see could not be made available to me. Depressed by this verdict, I returned to England.

Richard Haworth did not leave matters so. He had always taken a keen interest in my project, and his support was to become increasingly valuable. Richard spoke with the NLI Director, and she finally agreed that it would be a pity if NLI maps were omitted from my cartobibliography. Nonetheless, it took him until June 1992 to cut through the red tape, and for a system to be organised whereby he could examine these officially withdrawn materials, in the manuscript room, and during hours when it was closed. Meanwhile, the Publications Subcommittee of the Charles Close Society had arranged deadlines for my book, of 1 April for the completion of all content, of 1 August for my completion of format and arrival at the printer, and of 1 October for publication. But even allowing for the delay in Ireland, it should still have been possible to meet the latter deadlines.

Richard examined the NLI maps as quickly as possible, once allowed to see them, and he wrote to me with his analysis on 19 June. Inevitably, it raised as many questions as it answered, and most of them were to do with the 1868 map, which was the base map used for the majority of the maps he had located. Unless I could identify in each case the state of the map, where was I to enter them in the book? I could only do this if I had control of the railway states. I requested photocopies. This was refused, on the reasonable grounds that the maps were bound into volumes, and photocopying was thus impossible. It was suggested that we put a student on to

⁶ This is not to say that post-Old Series carto-bibliography was ignored entirely, but it was confined to occasional working lists prepared by librarians and archivists, with no thought of general publication.

the task. I prepared a straightforward method of analysing the railway information and Richard found someone to undertake the work, while he himself did other supplementary work, and followed up other possibilities which had occurred to him, among the Irish Free State official papers. Completion of all this was delayed another fortnight thanks to NLI holidays, but Richard posted to me the completed paperwork on Saturday, 8 August, just prior to his setting off to England for his summer holiday.

At this point, the Post Office took a hand, and Richard's package was never delivered to me. Until Richard rang me during his holiday, I of course could not even confirm with him that he had mailed it. After a further fortnight's delay, I knew he had, and had instituted an official Post Office search for it at Stratford on Avon. Richard did the same thing from Trim once he had returned. It revealed nothing. While Richard could reproduce his work, there were no other copies of the railway information, upon which all else depended. There was only one option, it would have to be done again. I could go myself the following week. But there would be no point unless I was to be allowed to see the maps (still, of course, officially withdrawn). Richard returned once again to the NLI, to explain the problem. Could the maps be made available to me? They could, on Tuesday and Wednesday mornings only. I bought my ticket and returned to Dublin on 6 September.

It was on the Monday in Dublin that the package that Richard had sent in August finally turned up, returned to sender. For four weeks it had been languishing in Stratford Sorting Office, awaiting collection consequent upon the notice that had supposedly been left by the postman when I was out. Needless to say, had the card actually been put through my door, I would have collected my package. It has also still to be explained by the Post Office why the search I instigated at least a fortnight earlier had not immediately turned it up. Of course I brought all these matters to the attention of the Post Office, and requested the return of the £300 a second visit to Dublin had cost me, entirely, as I saw it, through the fault of the Post Office. They have offered me £50 in compensation, which I suppose is better than nothing.

But I digress. All went well at the NLI when I went on the Tuesday morning. The maps I had requested were there, and all facilities were laid on. Richard accompanied me, wanting to investigate further how it was these maps were not in the card catalogue. He learned that their cards had been abstracted from the catalogue when the maps were withdrawn for conservation. He asked to see these cards, because his typed summary list suggested further possibilities, such as twelve volumes, each entitled 'Ireland'. The cards were produced, and Richard spent Tuesday morning examining them, and locating some thirty further titles it might be advantageous to examine (I should emphasise that until we actually saw the maps, it was often impossible to tell whether the maps listed were OS or not). At the end of this session, therefore, we submitted a request for a further twenty volumes for examination on the Wednesday.

It was at this point that we hit a major snag. Richard's contact in the NLI had the day off, and the director too was away. His request was processed by someone who had no sympathy with our situation, and fell back on a 'six items only' regulation. Wednesday morning was my last chance to see these maps: I could not delay in Dublin another week. Naturally we appealed, but the authorities were unmoved.

I spent the afternoon in the National Archives. Meanwhile Richard, determined not to be defeated on this matter without a further fight, spent at least an hour on the telephone to different people in the NLI. But they remained unmoved, and fell back time and again on 'six items only'. Richard rang me. I suggested trying six items for each of us. He laughed, but none the less tried it. They were still unmoved. Richard recalled a mission statement once published by the NLI, wherein they stated themselves ready to 'make accessible materials on or relating to Ireland....to provide timely and free access to those with genuine research needs.... [and] to respond sympathetically to users' needs'. Richard quoted this to them. They were unmoved.

By this time I would long since have given up trying. I recall a similar situation in Florence, where a music library was 'closed for cleaning', and I was considered lucky to see ten, instead of six, items in a day, from a list of 120 I wanted to see. This was in a library where no other students were working, the staff apparently otherwise unoccupied, and the volumes I

wanted but ten feet away from me. Of course, I was not permitted to help myself. Indeed, I gave up, and went to Venice. But Richard is made of sterner stuff than I. Where, he asked, had the 'six items only' regulation come from? From the library trustees. He demanded a list of the trustees, two of whom he found he knew. The first denied knowing anything about such a regulation, but suggested it may have been discussed at a meeting he did not attend. He recommended approaching the chairman of the trustees. Richard did so. The chairman said that the regulation was nothing to do with them, and that they would not so involve themselves in the day to day administration of the library. He was sympathetic to Richard's arguments, and agreed to telephone a library staff member himself on Wednesday morning. He would not instruct, but he could persuade. All the volumes we requested duly arrived.

Following a day in Belfast to inspect sources there, I returned home on 11 September. In order to avoid delay into 1993, the latter stages of my book had to be completed in frenetic haste, since professional commitments were to keep me from home for more than two months. I write this now to apologise to readers should the Irish content prove not to be as accurate or as fully analysed as I hoped, and they have a right to expect. I have found that for me the sort of analysis required needs constant checking, usually by means of returning to the originals. In two mornings only, there was inadequate time to do this satisfactorily, and subsequently, of course, it was impossible. I hope one day that I can make a more leisurely inspection of this material, and I would hope to be able to record any corrections or additions in *Sheetlines*. But I have a feeling that the NLI maps will now be completely out of circulation for some years, and few if any other copies are likely to emerge anywhere else. We are therefore lucky at this stage to have even this preliminary listing. And let me frankly admit that without the astonishing tenacity, even obstinacy, of Richard Haworth, the Irish content of my book would be substantially less than what we have so far achieved. Thank you, Richard!

Roger Hellyer
5 November 1992

Everest postmarks

In *Sheetlines* 34, p.8, Tim Nicholson refers to a postmark with Everest upon it. Maybe I can throw some light on this. On 4 July 1990 a special cover was issued to commemorate the bicentenary of the birth of Sir George Everest. This was promoted jointly by the Royal Geographical Society and Royal Institution of Chartered Surveyors. Although it did not prove possible to have a special stamp printed, the supplier used those stamps which he felt to be most appropriate. The postmark was London SW1, the area of London in which Sir George lived for most of his retirement.

When the Ordnance Survey maps issue was imminent the supplier of the Everest cover found that he had about a hundred covers remaining. The appearance of a set of survey-orientated stamps seemed to him an ideal opportunity to make a further cover. This he did as a limited edition of 100 and for the postmark used Greenwich since it was the most likely birthplace of Sir George, (although some reference works quote a place in South Wales).

Thus it was not really a cover commemorating the Ordnance Survey nor the 150th anniversary of the completion of the Survey of India. In fact it could hardly have been the latter since the Survey of India was far from complete in any of its aspects by 1841 except for the meridian arc.

Since the article by Tim Nicholson was on philately it might interest readers to know that it is possible to compile a large collection of stamps and covers with surveying themes. The collector can of course set his own boundaries for items but they could include instruments, personalities, maps ancient and modern, anniversaries, conferences and several others. In fact I have some two thousand such stamps and know of many more. A hundred sheets of my collection were recently exhibited at an international survey conference in Washington (USA not UK!) and if there are any appropriate gatherings in this country where they could be displayed I would be interested to hear.

J.R. Smith (address: 24 Woodbury Avenue, Petersfield, Hants, GU32 2EE.)

Ordnance Survey Land Valuation Plans

by Geoff Armitage
British Library, Map Library

The following is a brief description of the relationship between the Land Valuation surveys in Great Britain and Ireland and the Ordnance Survey. There may be a few readers who are not aware of the locations and potential usefulness of land valuation plans.

By the Finance Act of 1909-10 the Inland Revenue created the Valuation Department and made arrangements with the Ordnance Survey to carry out a new revision of the County Series plans for the purposes of land valuation.

It was considered essential to revise especially the recently developed, formerly rural, areas, and the detail revised was that required by the superintending valuers, such as boundaries, new buildings and acreages. In all, over 8000 1:1250 scale plans were revised at a total estimated cost of £80,000, but this was probably an overestimate as the cost was partially offset by sales to the public. 1:2500 plans were revised to 1:1250 for the purposes of land valuation in order that they could be more easily annotated by the Valuation Department.

In 1931 it was clear that another valuation revision was necessary as the normal cyclic revision was falling further and further behind while the growth of towns increased. A second land valuation was initiated and by the end of 1931 about 150 plans had been revised at 1:2500 and subsequently published at this scale. The areas covered are parts of Durham, Gloucestershire, Hertfordshire, Lincolnshire, Midlothian, Northumberland, Staffordshire, Surrey, Warwickshire and Yorkshire. However, owing the funding constraints and insufficient time only new roads and frontages were revised, resulting in substandard plans and consequently low sales. Probably as a result of this, the land valuation work was suspended in December 1931.

The original plans used by the Land Valuation Office are annotated in red ink with assessment (or hereditament) numbers. Those for the 1909-10 valuation can be consulted in the Public Record Office (classes IR 121-135) along with valuation books and field books. Original working plans that were used in the valuation are preserved in the local record offices.

Although the 1:1250 revision was used to record data in recently developed areas, all the other major OS scales were used by the Valuation Office, the scale used depending upon the population density. These can also be inspected at the PRO. A comprehensive set (subsequently bound) of the 1:1250 plans as revised for the 1909-10 valuation, minus the annotations and as sold to the general public, were received on copyright deposit in the British Museum (now British Library) Map Library. There is also a loose sheet set of the abortive 1:2500 1932 second Land Valuation survey.

In Ireland, land valuation started in 1830 and is known as the Griffith Valuation after Richard Griffith, head of the Boundary Department, who became Commissioner of Valuation. Originally, the basic purpose of the Irish OS six-inch was for the Griffith Valuation, and the six-inch sheets (five feet for urban areas) were used to record tenement numbers and boundaries until the 1890s when the Irish 1:2500 was also used for areas of very close detail. Several 'editions' of these annotated plans were produced, as they were continually updated by the Valuation Office to keep up with changed tenement boundaries. Also, corrections brought to light by the valuers were incorporated by the OS into later editions of the published sheets, especially in the first half of the nineteenth century, although much of the revised valuation data itself was not published. These annotated maps can be seen in the Valuation Office (Ely Place, Dublin) and the Public Record Office of Northern Ireland, Belfast. The National Archives of Ireland holds early Griffith Valuation books and the Official Publications and Social Sciences Service of the British Library has a set published in 1847-64, and microfiche.

Perhaps the most significant aspect of the OS Land Valuation plans for Great Britain is the fact that the 1:1250 enlargements published in 1911-26 and the 1:2500 series published in 1932 constitute intermediate revised editions, mainly for urban areas, between the better-known editions of the 1:2500 County Series. As such they are a useful and probably underused source for researchers who need to have as accurate a date as possible for such purposes as dating houses. The Irish Land Valuation plans are somewhat different in that each edition of the regular six-inch, unlike the British OS series, constitute a revision for land valuation purposes. The

annotated Valuation Office copies, however, are more particularly interesting and useful in that they are annotated with tenement boundaries, which did not always coincide with the field boundaries on the published sheets.

References

Andrews, John H. *History in the Ordnance map: an introduction for Irish readers*, (Dublin, Ordnance Survey of Ireland, 1974).

Andrews, John H. *A paper landscape: the Ordnance Survey in nineteenth century Ireland*, (Oxford, Clarendon Press, 1975).

Ferguson, Paul J. 'The maps and records of the Valuation Office of Ireland'. B.A. Dissertation, Geography Department, University College, Dublin, 1977.

PRO leaflet. *Valuation Office: Records created under the Finance (1909-10) Act*. Records Information No.68 (1988).

PRO leaflet. *How to find and use Valuation Office maps and field books*. (Undated.)

Winterbotham, H. St.J. L. *The National Plans (the ten-foot, five-foot, twenty-five and six-inch scales)*. Ordnance Survey Professional Papers, New Series, No. 16. (London, H.M.S.O., 1934.

Note: The Land Valuation plans of Great Britain mentioned above can be consulted at the British Library Map Library, but they must be ordered the day before. Please write to the Map Librarian, Great Russell Street, London, WC1B 3DG, or telephone 071-323-7700.

I am very grateful to John Andrews for his help in writing this piece.

Addendum by Richard Oliver:

The majority of the 1:1250 plans produced after 1911 are listed in *Catalogue of maps and other publications of the Ordnance Survey*, (Ordnance Survey, Southampton, 1924, reprinted by David Archer, Kerry, 1991), the extent of the 1911-12 special revision is indicated in Index No. 2 in the OS annual report for 1912-13, and from a comparison of these two it would appear that not all the 1:1250s were of areas specially revised, nor were the specially revised areas all issued at 1:1250 scale. The PRO set of the Land Valuation maps contains a great variety of large-scale mapping: the following have been noticed casually, and other types will no doubt be found:

1:500 plans, late 19th century, not subsequently revised.

1:1250 enlargements from 1:2500.

1:2500 plans: ordinary sales copies, unrevised.

1:2500 plans: advance copies of apparently fully revised sheets in advance of formal publication. (There are a number of these for the North Riding of Yorkshire; they lack publication dates, but how incomplete they are otherwise I cannot say.)

1:2500 plans: partially revised, published with a heading in the manner SPECIAL EDITION 1912. (A Leicestershire sheet of this type has been reissued by Alan Godfrey.)

1:2500 plans: partially revised, with a note to that effect in the upper margin, and apparently printed. (A Leicestershire sheet and a Warwickshire sheet of this type have been reprinted by Alan Godfrey.)

1:2500 plans: originally ordinary sales copies, but revised by making manuscript additions and alterations in dark blue. These can be indentified by the OS Divisional Officer's signature, bottom right.

1:2500 plans: ordinary sales copies with revision added in manuscript. These are probably Valuation Department copies of OS manuscript mapping.

1:2500 plans: post-1912 examples. Several 1940s examples have been noted.

The maps in the PRO set remained in use until the late 1960s, as a result of which some are rather battered and others have emendations which by their nature (e.g. the use of ball-point pen), are obviously much later than 1911-12.

Conventional Signs and the Ordnance Survey: The case of Mills and the New Series

by Bill Bignell

Being a prominent feature of the landscape for centuries, few people are left insensitive to the many-sided appeal of the windmill. The sources of information for both wind-powered and water-driven mills are fittingly varied, even if individually most are not overly prolific. As a cautionary tale, this article considers one particular source of information over which care needs to be exercised when considering the recent history of the windmill. Unlike most sources, this one - the map record - arguably has not featured as an analytical or interpretative tool, or itself been assessed to any extent in the windmill literature to date. This is certainly not to argue that maps have not been extensively used in the various county mill histories and elsewhere to acquire evidence for millsites, but simply that a critical assessment of their use has generally not been forthcoming.¹ Even within the traditional paradigm for knowledge of mills which centres around their regional technical variety, one might have thought that demonstrating that variety and showing the diffusion process of the more salient of the many technical features, would have been most conveniently achieved through using maps. This is not an idea, however, that has caught on, and only one British author working in this area, in my opinion, has in any sense taken this approach.² From the other side of the coin one also looks in vain for a treatment by cartographers to establish any meaning in the landscape that mills might bring.

Thinking this to be a sad omission, an ongoing project of mine has meant taking a critical look at the contribution to, or distortion of, the history of the windmill made by the national cartographic record, embracing as it does all the vagaries of map production and selective representation of landscape features. The remit is potentially a broad one even if only the influence of the Ordnance Survey is considered. Having become very enjoyably involved with the story of the OS, I find that it is the complexity - one might say perversity - of the nexus of mutations that defines the usefulness of any of their different scale map series. With complexity, however, inevitably comes a range of anomalies and the possibility for misrepresenting the true situation regarding, in this case, the disposition of windmill sites at any point in recent history.

As a comparatively easy introduction to this field, the revision of the OS one-inch new series (NS-2)³ undertaken completely in the 1890s provides a snapshot view (in terms of map survey-to-production times at any rate), and hence theoretically accurate indication as to the turn of the century situation regarding windmills. Being relatively recent the correctness of this revision is easily verifiable from other manuscript sources, unlike, say, the eighteenth century situation where maps might be providing the only or certainly the most compelling primary evidence for mill sites. Easy, one might think it would be then, with the earlier evidence from the original new series (NS-1) and the subsequent second revision (NS-3) editions, and aided by other archival material, to ratify the NS-2 statement as far as windmills are concerned. However, from examination of a broad selection of each of the three editions from across the country, a number of inconsistencies appear which undermine such confidence and which if assessed, could provide another insight into the working of the OS as well as be a basis for putting much of windmill literature into critical context.

The incidence of windmill representation within the sheets of the NS-1 edition appears to be as

¹ The single concession to this argument has to be Farries' treatment of a cartographic record as invoked for his classic work on Essex, and in particular his use of a Venn diagram for highlighting categories of misrepresentation. See K.G.Farries, *Essex Windmills, Millers & Millwrights* (London: Charles Skilton, 1981) Vol I, 38-47.

² See David H.Jones, 'The Water-Powered Cornmills of England, Wales and the Isle of Man. A Preliminary Account of their Development', in *Transactions of The Second International Symposium on Molinology, Brede, 1969*, (Lyngby: Danske Mollers Venner, 1971), 303-354.

³ I follow here the nomenclature proposed by Richard Oliver in 'What's what with the New Series', *Sheetlines* 5 (December 1982), 3-8, whereby the original New Series, based on six-inch and larger scale surveys of 1841-89 is NS-1, the revision of 1893-8 is NS-2 and the Third Edition, revised 1901-12, is NS-3.

much geographic as year of (re)survey or publication based, though the three are obviously linked. Certainly the variability of representation through use of an unannotated symbol or the word 'windmill' or even just 'mill', and the incidence of representation carry no real correlation with what we know from other sources to have been the case on the ground. Of itself this is not a problem. There are, after all, larger scale near-contemporary maps available and it is simply the case that the NS-1 statement with regard to windmills is insufficient.⁴ One merely has to be grateful for the information where it exists even when, suspiciously, within a single sheet areas of comprehensive and very partial accuracy can occur.

The subsequent NS-2 edition appears to be much more consistent across the country in its declaration of sites and also in its representation of them with symbols annotated as presumably either working (or near working) with 'windmill', or derelict with 'old windmill', although use of the word 'disused' is made on more than one occasion. A minority of symbols are unannotated due to either space restriction or, conceivably, to indicate those sites with drainage or 'marsh mills' which would have presented to the surveyor as visually if not structurally similar, as well as those with the new metal windpump. A preliminary study to test this latter hypothesis produces high but not perfect correlation. The sheets generally are clearer than their predecessors and go to some length to ensure that millsites in very congested areas get recorded, but by no means are all sites then known to have supported a mill shown.

These map sheets were revised and reissued as the second revised NS-3 edition not much more than a decade later and distinguishing between the two editions can be reminiscent of deciding between states of the earlier Old Series, so similar is their style and so slight are the revisions. As one would expect the windmill symbol count is generally reduced for NS-3 given the then familiar pattern of mills falling into disuse, and helpfully the symbol for a windpump was introduced to cater mainly for the wind-driven skeletal metal farm pumps then appearing. So that using the three editions one could envisage, for example, the situation where a mill site is perhaps first identified on NS-1 even if only by the word 'windmill' (or 'mill' and by topographical inference as a windmill), confirmed by NS-2 and then to have altered in status or even disappeared on NS-3; or again the situation of a symbol maybe even annotated as 'windmill' on NS-2 which turns out to have been a windpump as more accurately declared on NS-3.

Both these situations can occur together, for example at Owslebury in Hampshire. NS-1 surveyed c.1865 has the word 'windmill' on a hilltop position close to the village recording the black common-sailed tower mill built in the early part of the century, (see Fig.1). In 1870 a brick towered windpump looking for all the world like a windmill was built alongside to raise water for the community's needs. The NS-2 sheet not surprisingly shows two windmill symbols annotated with 'windmills', (Fig.2). Only with the issue of NS-3 and the correct symbol for each together with the wording 'old windmill' is the situation most concisely and accurately shown, as shown in Fig.3, although one can perhaps speculate on whether or not the engraver would have been as assiduous in declaring the non-working state of the mill had there not been a clear space in which to insert the word 'old'. Indeed one might even suspect that since the root word 'windmill' shows no sign of having been repositioned on NS-2 at the time of needing to declare the windpump, that the accuracy with which the pump has been shown may have been compromised.

These suspicions aside, the general consistency of the map sheets countrywide, especially of the two later editions, allows sensible interpretations such as these to be made many hundreds of times, but a significant number of anomalies of one kind or another, other than those already discussed, also emerge. For example, and easily accommodated perhaps, are those windmills lying idle at the time of the NS-2 revision and missed by the surveyors, to be later shown on NS-3 as 'old windmill'. A rarer, but not impossible situation, is that of the NS-2 'old windmill' which becomes a windpump on NS-3. Other anomalies exist, further confounding any hope of conformity, but examining their patterns will no doubt add to the richness of the map story,

⁴ This idea of insufficiency has already been raised and discussed briefly by Richard Oliver, as part of a wider story involving the legacy of the Old Series and the policy decisions both to re-implement the windmill symbol in 1887 and, a decade later, to annotate them on (NS-2). See Richard Oliver, 'New light on the New Series', *Sheetlines* 12, (April 1985), 7-11.

rather than prove to be the irritant that the successive failure to acknowledge a millsite over three editions can be.

The confusion as to what actually constitutes a windmill is not, of course, of the Ordnance Survey's making. They simply and understandably from their earliest days followed map making tradition and did not differentiate, in the main, between genuine mills driven by wind, be they for grinding corn, snuff, whiting or whatever, and wind operated drainage 'mills' found in their hundreds in the eastern counties, which are culturally thought of as mills yet perform a pumping function. The problem now is semantic since our legacy has become such that not only the remnants of obvious drainage 'mills' in fenland but also industrial pumping 'mills', all still irritatingly accorded the mill symbol on modern series, have come under the conservationists' gaze as being representative of the same technological genre. At the turn of the century, with the issue of NS-3, the chance was lost for taking a rigorous stand on what was meant by a mill and what was meant by a pump. For those areas where brick and wood built drainage 'mills' had proliferated alongside windmills and where indeed some may have switched from one function to the other, the distinction *vis-a-vis* the symbol was rarely made and most structures are recorded with the windmill symbol. Clearly as well for areas not normally associated with drainage or marsh 'mills', not all mistakes were rectified as they were at Owslebury, and a purist interpretation of the windmill count for the NS-2 edition and for the NS-3 sheets needs to be mindful of these points.

Clearly, much has had to be done just to ratify the statements of NS-2 and NS-3. Indeed, as I suspect that no real consistency over the country as to what constituted a notifiable windmill structure can have prevailed, maybe to qualify that lack of consistency is the important task in hand. I certainly see the NS-2 and NS-3 statements, coming at the time that they did, as pivotal to putting much of today's popular windmill literature in context. After all, the current awareness of this area of industrial history is founded on the work of less than half a dozen seminal writers, whose own initial awareness of mill sites would have largely been gleaned from derivatives of these particular OS map editions. Any distortion of reality, therefore, inherent in these particular maps as well as disguising the true situation surrounding the twilight years of the windmilling industry, has arguably had its influence on our understanding of those mills which remain and probably on the policy which governs their current recognition by the Ordnance Survey.

Fig.1 - NS-1

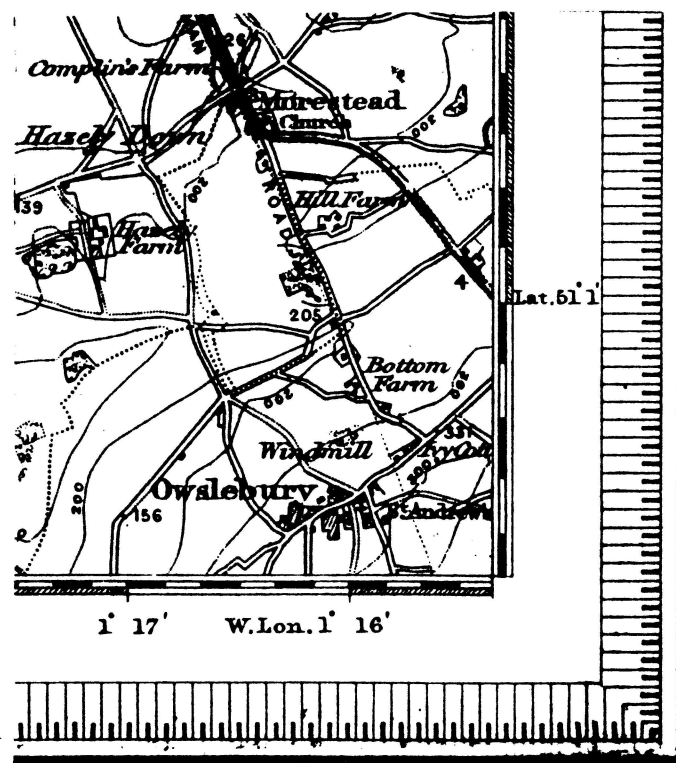


Fig.2 - NS-2

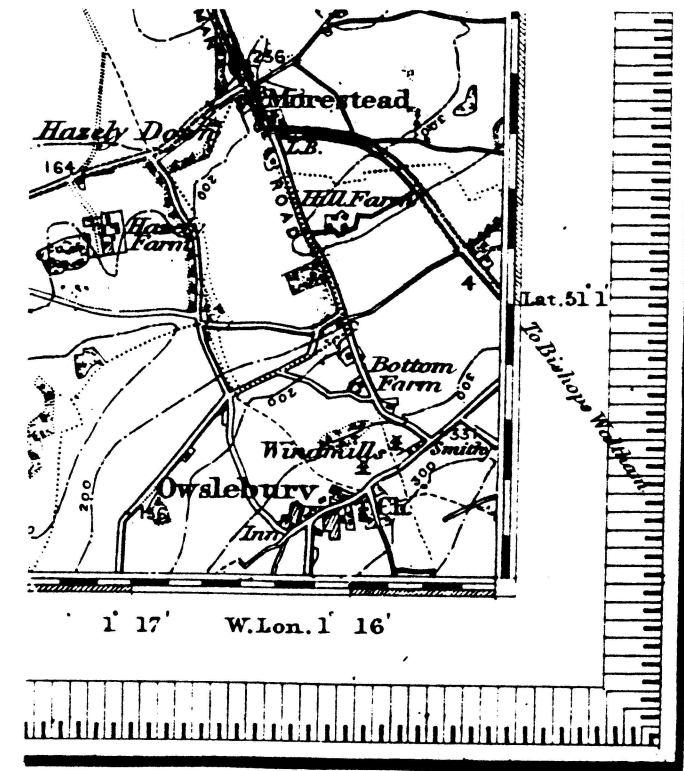


Fig.3 - NS-3

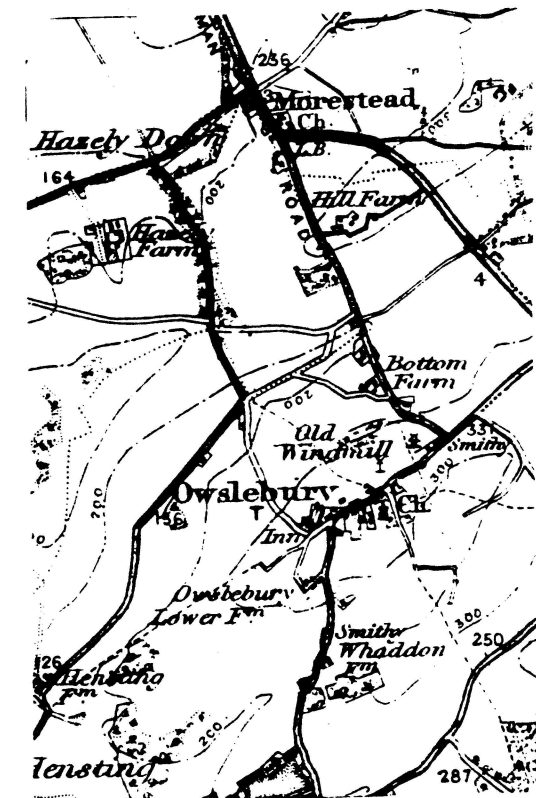




Figure 1. Portrait of George Victor Du Noyer. Reproduced by permission of the Royal Society of Antiquaries of Ireland.

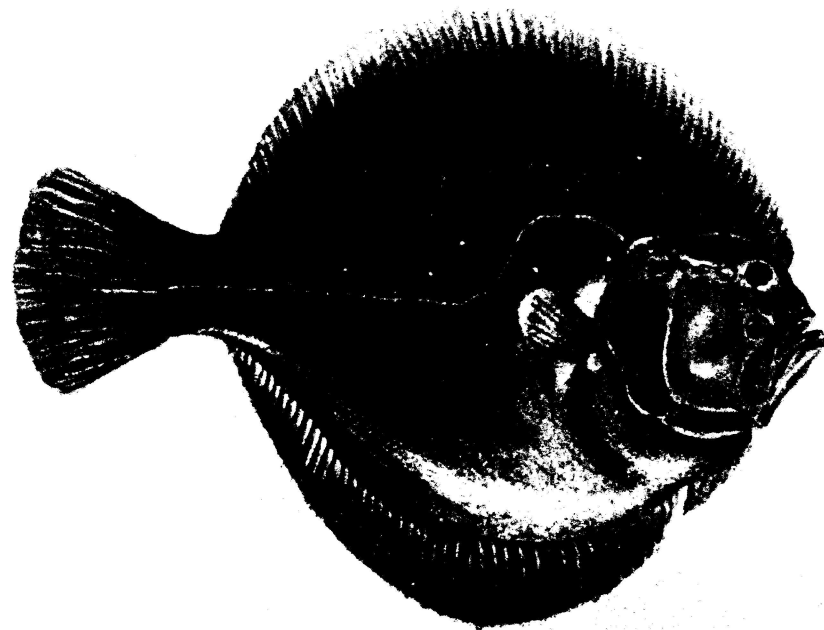


Figure 2. The Turbot. Signed and dated 183_. From the collection in the Natural History Museum, Dublin.

GEORGE VICTOR DU NOYER

1817-1869

by Petra Coffey

Department of Geology, Trinity College, Dublin 2, Ireland.

George Victor Du Noyer,¹ (he invariably spelled his name in this way) (Figure 1) was born in 1817, probably in Dublin, to parents of Huguenot descent. His father was Louis Victor du Noyer (1783-1868) and his mother was Margueret du Bédats. Louis Victor called himself a professor of the French Language² although he was never on the staff of the University of Dublin. They were married in the parish church (Anglican) in Donnybrook, in Dublin in 1816.³ The first record of a du Noyer in Ireland was in 1785,⁴ but the du Bédats were in Ireland from 80 years before that date.⁵ George had a brother, whose name is unknown.⁶ There was also a sister, Charlotte, who married their cousin, Robert du Bédats, in 1848 and who lived in Sandymount Green, Dublin.⁷ The du Noyer family had several addresses in central and south Dublin. By 1833, they were living at 20 Charlemont Street, where, while M. du Noyer taught French, Mrs. du Noyer had a 'Seminary for young Ladies'.⁸ The only information about George Victor Du Noyer's early life is from the obituary notice by Monsieur Alphonse Gages,⁹ which states that 'He was educated at the well-known seminary of the late Mr Jones in Great Denmark Street.' The school must have been that of the Reverend William Jones, A.M. who had a 'Seminary for General Education' there for many years.¹⁰ One of Du Noyer's earliest known drawings - a humorous self portrait - was drawn at 'Old Mr. Jones' school in Great Denmark Street'.¹¹ A subject which completely defeated Du Noyer was spelling, and until the end of his days his spelling in French and English was idiosyncratic. He was aware of this failing, and one of his note-books¹² contains a list of 'Words which I cannot spell'. Gages also states, that 'at an early age [he] became a pupil of George Petrie', the eminent Irish-born antiquarian and artist, who lived in Great Charles Street, Dublin from 1821 to 1850, which was very close to Great Denmark Street. Petrie (1789-1863) must have instructed young Du Noyer in archaeological drawing and given him a feeling for the antiquities of Ireland which lasted all his life. Du Noyer's own interests were in all branches of natural history. In the Natural History division of the National Museum in Dublin there is a collection of very fine paintings of marine plants and animals, made in counties Londonderry and Antrim between 1830 and 1840 (Figure 2). (Du Noyer's very commendable habit of not only naming but dating his paintings makes it easy to follow his travels around Ireland). These paintings are often like photographic reproductions of the originals, rather than artistic representations, but obviously that was what was required of Du Noyer. Nearly all of these are natural size, even the different species of fish from small sticklebacks measuring 2.5 cms to large fish like salmon and rays.

¹ George Victor Du Noyer always wrote his patronymic with a capital D, but it would have been more correct to have used the small 'd'. It showed the beginning of Anglicisation of his surname. He often signed himself GVDN, G.V., or Geo:V. DuNoyer.

² Wilson's *Dublin Directory* 1836, (Louis du Noyer, Professor of the French language, 38 Grafton Street).

³ Parish register of births, marriages and deaths, Donnybrook.

⁴ Will of Francis du Noyer, Public Record Office, Dublin.

⁵ *Registers of the French Conformed Churches of St Patrick and St Mary, Dublin*, published by the Huguenot Society of London, Vol. VII, 1893, and *Registers of the French Non-Conformist Churches of Lucy Lane and Peter Street, Dublin*, published by the Huguenot Society of London, Vol XIV, 1901.

⁶ His name may have been Samuel. (Personal communication from Ms. du Noyer-Hayes.)

⁷ *The Rise and Fall of the Du Bédats*, by Mary Glancy, Dublin, 1990.

⁸ Commissioners of Irish Education Inquiry, Appendix no. 22, Abstract of Parochial Returns, Province of Leinster (ii) City of Dublin, 1826-7.

⁹ *PRIA*, Vol. X, p.413 (1866-1869).

¹⁰ Pigot's *Street Directory*, 1824.

¹¹ *R.S.A.I.*, vol IX.

¹² *R.S.A.I.* notebook no. 1.

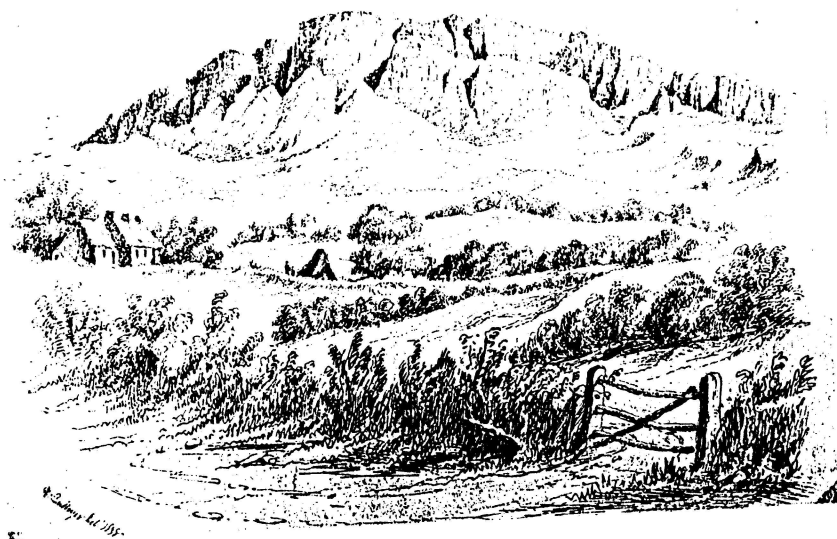


Figure 3. View of Benyevenagh, Co. Derry. Signed and dated 1838. Reproduced by permission of the Geological Survey of Ireland.



Figure 4. *Carex buxbaumii* Wahlenberg. Reproduced by permission of the Ordnance Survey, Dublin.

In 1824, the House of Commons authorised a survey of Ireland for land valuation purposes. Lieutenant-Colonel Thomas Colby, (1784-1852) of the Royal Engineers, was appointed to head this Ordnance Survey, which was to publish maps at the scale of 6 inches to 1 mile (1:10,560). Colby commenced by making a Trigonometrical Survey, starting from a base of 48,640.8873 feet or nearly 8 miles, on the eastern shore of Lough Foyle, in County Londonderry. It was completed by 1832. Captain Joseph Ellison Portlock (1794-1864) was in charge of this work. The Ordnance Survey, was a military establishment, with headquarters at Mountjoy House (barracks) in Phoenix Park in Dublin. Lieutenant Thomas Aiskew Larcom R.E. (1801-1879) was the administrator in Mountjoy House from 1828 to 1846 and he planned to produce a *Memoir* of every parish and county of Ireland containing natural history, geological and statistical data. It was this department, also headed by Captain Portlock, which employed civilian staff including Petrie and Du Noyer. Petrie was with the Ordnance Survey from 1833 to 1846,¹³ as an artist, and it was probably due to his influence that Du Noyer was there intermittently from 1835 to 1840.¹⁴ Du Noyer's early style of scenic painting, much influenced by Petrie, (Figure 3) had tended to exaggerate mountains and other topographical features, but as soon as he joined the Ordnance Survey, his style became completely realistic. Most of his paintings were executed by putting watercolour over pencil. Portlock introduced Du Noyer to the study of geology and taught him how to draw stratigraphical columns. The complete volume finally produced by the Ordnance Survey in 1837, *Memoir of the city and North Western Liberties of Londonderry, Parish of Templemore* contains seven plates, showing fossils, sedges and marine algae all drawn by Du Noyer (Figure 4). This *Memoir* was expected to be the first volume of the survey of every county, but it proved too expensive to produce and the plan had to be abandoned. Nevertheless, the Ordnance Survey did produce one more publication, apart from the maps, which was the *Report of the geology of the county of Londonderry and parts of Tyrone and Fermanagh* of 1843, in which all 38 plates were drawn, but not engraved, by Du Noyer (Figure 5). He also provided most of the illustrations which are in the text. Many of the original drawings and proofs of these two publications are extant in different archives in Dublin. During this time in the northern counties of Ireland, Du Noyer met and worked with James Flanagan (died 14 April, 1859) who had previously worked on the Trigonometrical Survey of Ireland (Figure 6). Du Noyer and Flanagan, the latter now working as a 'Fossil collector', were with the Ordnance Survey together from 1835, and became good friends. The drawing made by Du Noyer of Flanagan at Ferriter's Cove, near Dunquin, in County Kerry on 9 September 1856, is one of Du Noyer's liveliest portraits, and shows all the warmth of friendship that existed between the two men. They were both with the Geological Survey of Ireland at the time. Flanagan's mischievous sense of humour is obvious. (He once dumped a fellow geologist in mid-river, and Portlock gave the action his full approval).¹⁵ He is shown in the portrait carrying the clinometer which Du Noyer made for him one very wet day, 14 October, 1839. The diary kept by Du Noyer from 8 July 1839 to 9 November 1839¹⁶ records a time when they were working together in County Londonderry recording antiquities, geology and fossils. In 1836-39 Du Noyer collected fungi, native roses and other plants, and bought apples at Belfast market, assuming that they were Irish: in fact they were not. The magnificent paintings he made of these are in the National Botanic Gardens, Glasnevin, Dublin.¹⁷ Du Noyer did good service to the country in drawing small and large houses, churches, memorials, and many archaeological sites which have since fallen into ruin or disappeared completely. For example, on 30 October 1840 he first visited the castle at Golden, County Tipperary, but when he visited it later in 1863 he noted on the original drawing, 'not a vestige of this castle now remaining.'¹⁸

¹³ Ruaidhri de Valera in *J.R.S.A.I.*, Vol 79, (1949), p.151.

¹⁴ *Ibid.*

¹⁵ Letter, GVDN to Larcom. 3 July 1864. N.L.I. 7515.

¹⁶ NLI, MS 1441.

¹⁷ Catalogued by M. Scannell and C. Houston in *J.L.S.R.D.S.* 2 (1980).

¹⁸ *R.S.A.I.*, vol. 2, p.41.

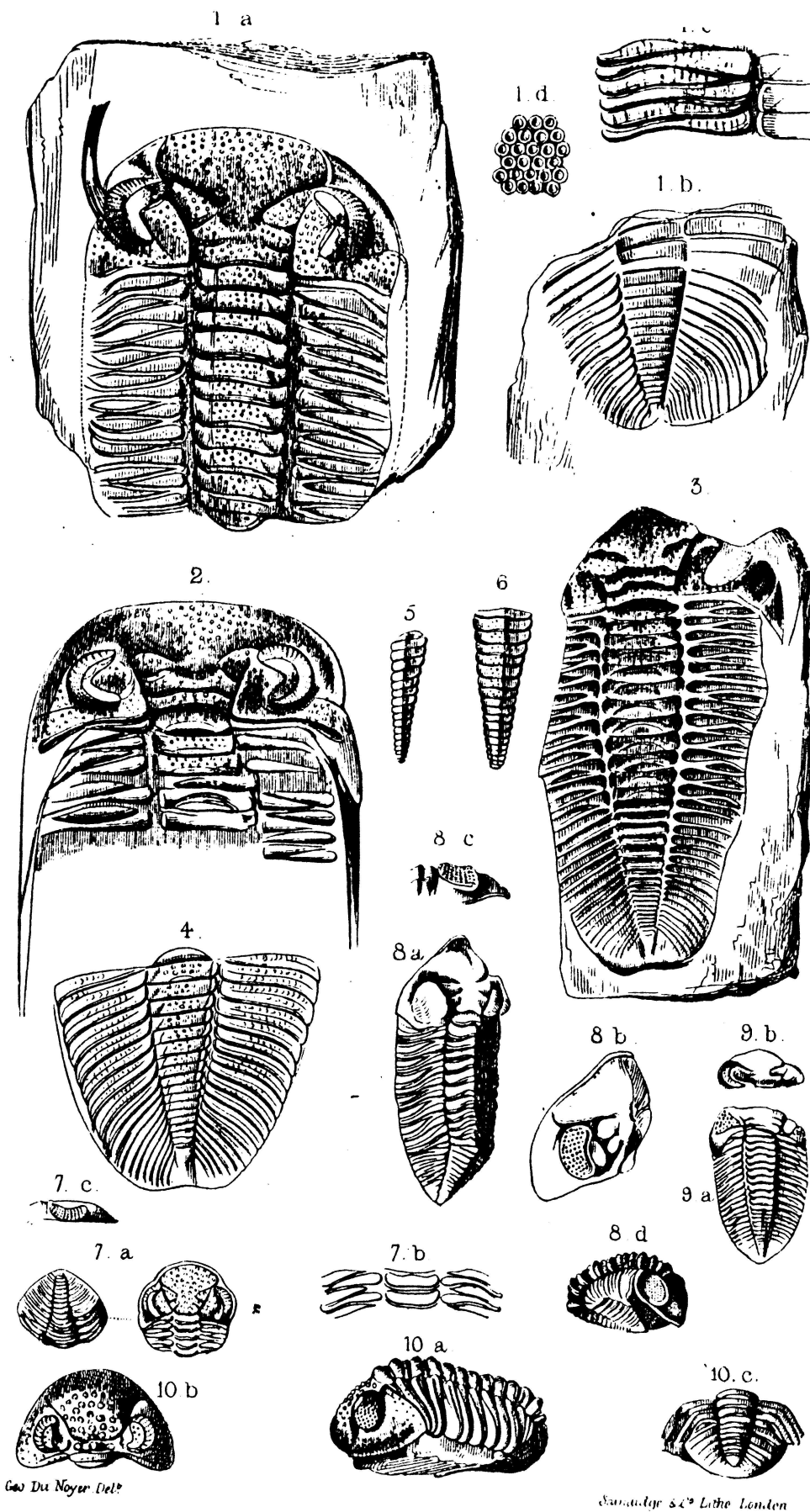


Figure 5. Plate II from *Report on the Geology of the County of Londonderry and of parts of Tyrone and Fermanagh*. Reproduced by permission of the Ordnance Survey, Dublin.

In 1840, the staff of the topographical section of the Ordnance Survey was reduced to four, of which Du Noyer was not one. The Ordnance Survey closed the Belfast office, and all business was conducted from its Dublin headquarters at Mountjoy House. Petrie was retained, 'the entire topographical department moving to his back parlour on Great Charles Street'.¹⁹

The years from 1840 to 1844 must have been difficult years for Du Noyer, as he does not seem to have been employed on a regular basis at any time during that period, although there is some evidence that he did a small amount of work for Petrie from 1840 to 1842.²⁰ He probably kept body and soul together by accepting commissions to paint country houses, and by accepting any kind of art work that he could get. Up to 1847, he called himself an 'Artist' rather than a geologist²¹ although the training he received under Portlock in geology, which began with drawing stratigraphical columns in 1835, started him on a career as geologist. He had an income from 1841 by selling paintings which were exhibited at the Royal Hibernian Academy of Arts. Between 1841 and 1863 he exhibited a total of 48 paintings, mostly scenic views, but there was one watercolour, 'Portrait of a Gentleman' in 1844.²² The paintings were modestly priced. His 'View from Muckross Desmesne, Killarney' exhibited in 1860, was marked £4-0s-0d. His glowing watercolour 'Dunmoe Castle on the Boyne, near Navan' on exhibition in the Royal Hibernian Academy in 1844, is now in the National Gallery, Merrion Square, Dublin, where it was hung from 20 August to 19 September 1991 as part of the 'Irish Watercolours and Drawings' exhibition.



Figure 6. James Flanagan, the Fossil Collector, drawn at Ferriter's Cove, County Kerry, on 6th September, 1856. Signed. Reproduced by permission of the Director, British Geological Survey.

¹⁹ Peter Murray, unpublished D.Litt. thesis, University of Dublin, 1980.

²⁰ Dr. J. Archer, personal communication.

²¹ Thom's *Directory*, 1847: GVDN living at 59 Great Brunswick Street.

²² Ann Stewart (ed), *Royal Hibernian Academy of Arts. Index of exhibitors and their works*, Dublin, 1985.



Figure 7. *Stackallan House, County Meath*. Signed and dated 1844. Reproduced by permission of the Warden of the College of Saint Columba, Rathfarnham, County Dublin.



Figure 8. *Carboniferous Limestone near Kanturk, County Cork*. Signed and dated 1866. Reproduced by permission of the Geological Survey of Ireland.

In March 1844 Du Noyer went to the newly-founded College of Saint Columba at Stackallan House, County Meath, as a 'Fellow and Tutor' in Fine Art. Stackallan House, which was rented from Lord Boyne, was an imposing early Georgian house, built in 1716, and is of considerable architectural importance (Figure 7). The students and 'Fellows' (masters) all had to be members of the United Church of Great Britain and Ireland (Anglican). He was there until December 1845.²³ Most of the drawings done during that time, were made in the vicinity of the college. Three were exhibited at the Royal Hibernian Academy of Arts. The masters, called 'Fellows', were expected to live a monastic life, and always to wear 'academics' (gowns) when the boys were present. Du Noyer, like most of the Fellows of that time did not stay long.²⁴

In 1847, Du Noyer became a 'Temporary Survey Officer' with the Geological Survey of Ireland.²⁵ It was a 'Special Appointment' but he remained with the Survey for the rest of his life. On 3 April 1849 he became a permanent member of staff as Assistant Geologist.²⁶ The independent and non-military Geological Survey of Ireland had been founded in 1845 with Captain Henry James (1803-1877) as local director. Using the six inch to a mile topographical maps produced by the Ordnance Survey as a base, the entire country was surveyed geologically. The sheets produced by Du Noyer were enlivened by small drawings, often of fossils, but sometimes of unusual geological features, with his dog Mr Buff (an Irish waterspaniel) or a hammer-carrying geologist used as scale. At the side of the sheets he wrote notes to other geologists and pencilled comments about the later colouring of the maps. These field sheets produced in the 1850s and 1860s are still in daily use in the Geological Surveys in Ireland and are often used as a first point of reference for research in any particular area.

Du Noyer became District Surveyor in May 1867,²⁷ when he was moved with his family to Carrickfergus, County Antrim. He was responsible for surveying all of counties Waterford, Wexford, Cork and Kerry, and parts of most of the other counties. He mixed easily with other geologists (and archaeologists) of his day, as surviving correspondence from this period testifies. In December 1854 he recommended his brother, who he himself had trained, to Sir Henry De la Beche (1796-1855) the director of the Geological Survey of Great Britain and Ireland for a position as geologist,²⁸ but he does not seem to have been appointed. He contributed to seventeen of the *Memoirs of the Geological Survey* - the explanatory books which accompanied the geological maps published by the Geological Survey. Most of the woodcuts in the text were drawn by Du Noyer. His drawings are still used freely today in many publications, often without any acknowledgement of authorship. A typical example of his geological work is shown in Figure 8. He often 'colored geologically' his work to demonstrate the different lithologies (Figure 9). During his years with the Geological Survey, Du Noyer travelled the length and breadth of Ireland, often staying in one area for months at a time. After he married and had a family, they went with him too. He seems to have had two trips abroad, the first to England in August 1845, visiting Bristol, Chester and London, and the second in 1857 to Paris and Rouen, and perhaps Marseille, where family tradition says that the Du Noyers came from. He produced many thousands of pencil sketches, water-colours, a few oil paintings and innumerable thumb-nail sketches of every conceivable subject. For all his adult life he carried a small pocket-book with him, a very usual habit for gentlemen of that time and from his thirteen note-books that remain we can ascertain Du Noyer's character: a warm-hearted, friendly, generous and kindly man, with very wide interests. He read extensively. These note books contain tiny drawings of fossils, plants, houses, animals as well as archaeological drawings, boats large and small, unusual geological formations and of course Mr Buff, who took an interest in geology.²⁹

²³ Personal communication from N.H. Lush.

²⁴ G.K. White, *A History of St Columba's College*, Old Columbian Society, 1980.

²⁵ G.S.I. Letter Book, 1857.

²⁶ B.G.S. G.S.M. 1/5, p.138.

²⁷ B.G.S. G.S.M. 1/16.

²⁸ B.G.S. G.S.M. 1/300.

²⁹ Series of drawings of Mr Buff, R.S.A.I., vol 2.

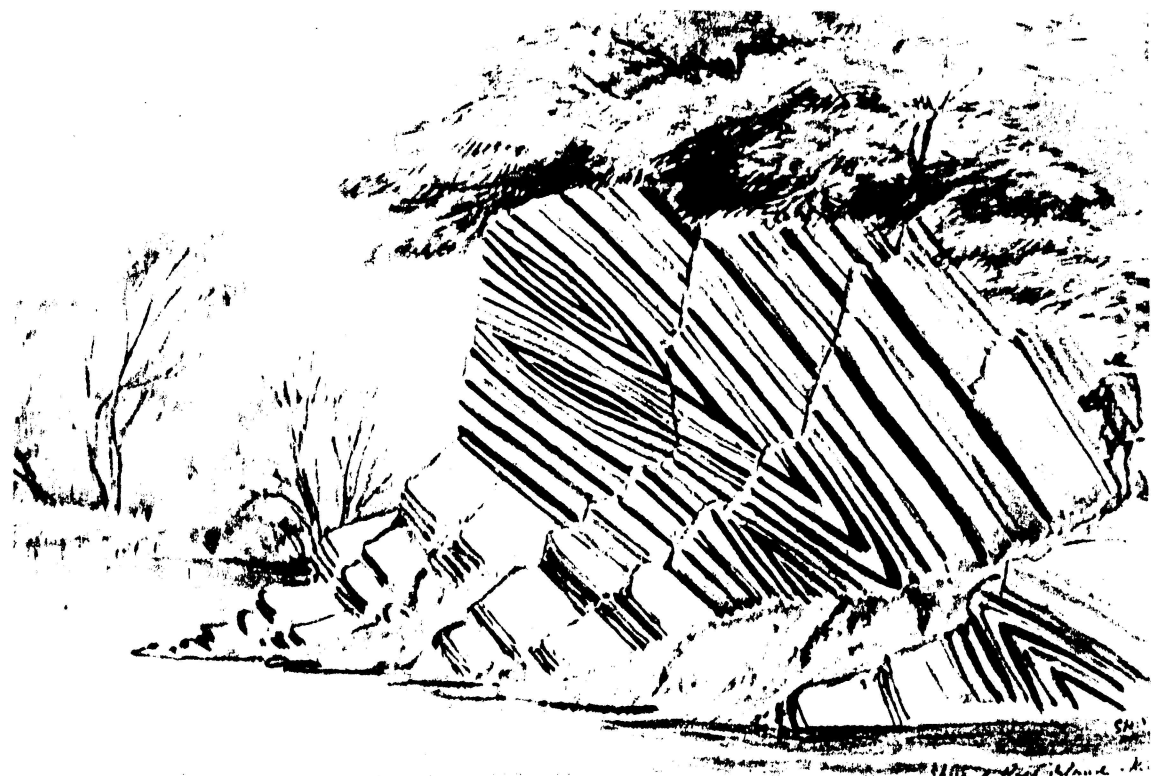


Figure 9. Chert layers in Carboniferous Limestone, Ross Island, Lough Leane, County Kerry. Signed and dated June 1855. Reproduced by permission of the Geological Survey of Ireland.

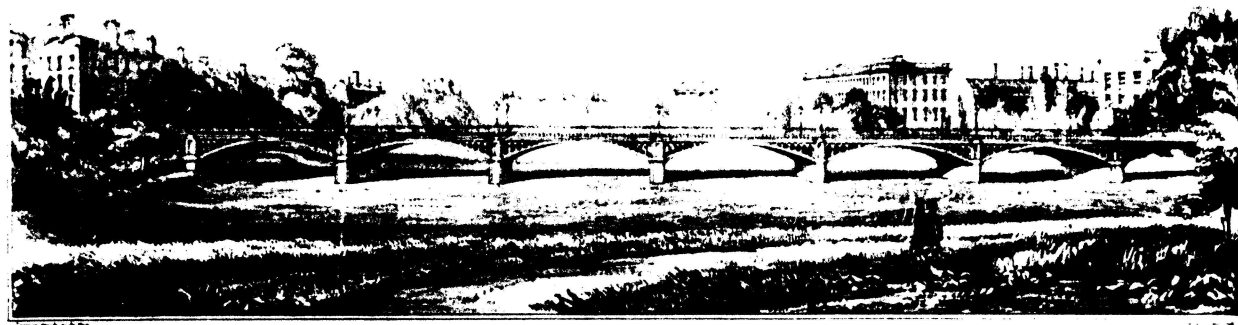


Figure 10. Proposed communication between the north and south sides of Dublin. Viaduct across College Park connecting Leinster Str. with the intended bridge at Custom House. By William Aher C.E. Drawn on stone by Geo: Du Noyer. Reproduced by permission of the Trustees of the National Library of Ireland, Dublin.

All his life, Du Noyer worked as a freelance artist, illustrating many publications. He drew some of the plates of *The Round Towers and ancient architecture of Ireland* by George Petrie, published in 1845, a publication which first critically analysed the origin and history of round towers. Plates II, V and XIX of Frederick M'Coy's *A Synopsis of the Characters of the Carboniferous Limestone Fossils of Ireland* published in Dublin in 1844 were 'Drawn on stone' by Du Noyer. He made eighteen illustrations for *Halls' Ireland - its scenery character etc.*, published between 1841-43 and *Popular Physical Geology* by Joseph Beete Jukes (1811-1869), published in London in 1853. This publication had coloured plates. He also lithographed the frontispiece 'A view of the Royal Hospital from the Phoenix Park' for Rev. R.N.Burton's *History of the Royal Hospital, Kilmainham* of 1843. He made lithographic copies of paintings, such as 'Proposed communication between the north and south sides of Dublin. Viaduct across College Park connecting Leinster Str. with the intended bridge at Custom House. by William Aher, C.E. Drawn on stone by Geo: Du Noyer' (undated but c.1840) (Figure 10). Another was 'Loretto House, Rathfarnham, Dublin. Drawn on stone by G. du Noyer, from a drawing by James McCarthy' (undated).³⁰ Later on, while employed by the Geological Survey of Ireland, he illustrated lectures given by others such as those by Joseph Beete Jukes, Director of the Survey in Ireland from 1850 to 1869, in March 1856. The lectures were given in the premises of the Royal Dublin Society and were attended by 4521 people.³¹ These very large paintings, measuring 152 cms wide by 91 cms high, were often crudely done and usually of places not visited by Du Noyer. He was always at his best as a miniaturist. He compiled the geological edition of *Frasers Travelling Map of Ireland* of 1852, using the 'published maps of Mr. Griffith, Col. Portlock and the Geological Survey of Ireland'. This map was printed at a scale of ten miles to the inch, and was coloured using eighteen tints for the different types of rocks.

Du Noyer became a member of Masonic Lodge No. 44 in Clonmel in County Tipperary in 1851,³² where he was surveying for several months. He had been elected a member of the Geological Society of Dublin on 20th November 1843 and read his first paper to the society on 13th December, entitled *On geology as applicable to the delineation of Nature by the Artist*. The following year he was elected to council. The Geological Society of Dublin attracted members who were not all geologists but who took a gentlemanly interest in the relatively new science and used the meetings partly as a social club. Du Noyer still called himself an artist rather than a geologist in 1847.³³ He became a corresponding member of the Dublin Natural History Society and by 1849 was a member of the council. In 1856 he became a member of the Kilkenny and South East Ireland Archaeological Society which later became the Royal Society of Antiquaries of Ireland. At the annual meeting of the British Association for the Advancement of Science, which was held in Dublin in 1857, Du Noyer read two geological papers, one of them with Jukes. In August 1857³⁴ Du Noyer was elected to membership of the Royal Irish Academy, and he was made an honorary life member in 1863, having presented them with a collection of his drawings.³⁵

His interest in palaeontology dates from his early days in the Ordnance Survey, and during his time with the Geological Survey he collaborated with professional palaeontologists such as John William Salter (1820-1869) in the identification of fossils. In 1843 Portlock paid Du Noyer the compliment of naming a Carboniferous bivalve in his honour, namely *Lucina du noyeri*. It is illustrated in Plate XXXVIII of the 1843 Ordnance Survey publication. His palaeontological drawings are superb and show a thorough knowledge of the subject. On the field sheets which he surveyed for the Geological Survey, the fossils contained in the ground he covered were often drawn at the side of the sheet and named. There is a superb collection of his 'Palontological Drawings' in the Geological Survey of Ireland.³⁶

In 1858 Du Noyer married Frances (Fanny) Adelaide du Bédât, probably his first cousin,

³⁰ N.L.I. no. TA 948.

³¹ Annual report of the R.D.S., 1856.

³² Minute book of Lodge No. 44, Clonmel, 1851.

³³ Thom's *Directory*, G.V. du Noyer, 59 Great Brunswick Street, Dublin - Artist.

³⁴ *P.R.A.I.*, Vol. VI, (1858).

³⁵ *P.R.I.A.*, vol VIII (1963).

³⁶ G.S.I., F S 1/1.5.

A hole in sample of blue stone.

[illegible]

³⁹ Minute book of the Geological Society of Dublin, p.258, 28 March 1864. Kept in Department of Geology, Trinity College, Dublin.

Armagh County Museum, The Mall East, Armagh BT61 9BE.
 British Geological Survey, Keyworth, Nottingham NG12 5GG, U.K.
 Geological Survey of Ireland, Beggars Bush, Haddington Road, Dublin 4, Ireland.
 Geological Survey of Northern Ireland, 20 College Gardens, Belfast BT9 6BS.
 National Botanic Gardens, Glasnevin, Dublin 9, Ireland.
 National Gallery of Ireland, Dublin 2, Ireland.
 National Library of Ireland, Kildare Street, Dublin 2, Ireland.
 National Museum of Ireland, Natural History Division, Kildare Street Dublin 2, Ireland.
 National Museum of Ireland, Geology Department, Merrion Row, Dublin 2, Ireland.
 National Archives, Bishop Street, Dublin 8, Ireland.
 Royal Irish Academy, Dawson Street, Dublin 2, Ireland.
 Royal Society of Antiquaries of Ireland, Merrion Square, Dublin 2, Ireland.
 Society of Antiquaries of London, Burlington House, Piccadilly, London W1V 0HS, U.K.
 University College, Dublin, Ireland.
 Private collections.

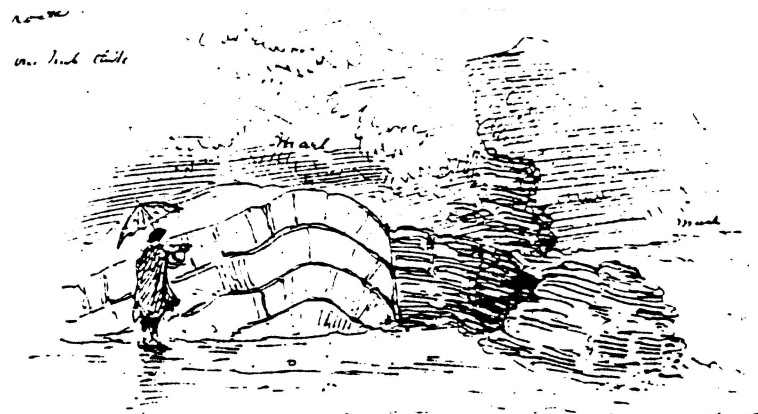
⁴¹ *J.R.S.A.I.*, vol. 11 (1870-71).

Abbreviations:

BGS	British Geological Survey.
GSI	Geological Survey of Ireland.
JLS	Journal Life Sciences, Royal Dublin Society.
NLI	National Library of Ireland.
RDS	Royal Dublin Society.
RHA	Royal Hibernian Academy of Arts.
RS	Royal Society.
RSAL	Royal Society of Antiquaries of Ireland.
SAL	Society of Antiquaries of London.

Acknowledgements

I am indebted to the librarians in the Royal Geographical Society, the Geological Society of London, the Royal Society of Antiquaries of Ireland, the Geological Survey of Ireland, the Royal Society, the Society of Antiquaries of London, the British Geological Survey, the National Botanic Gardens, Glasnevin, Dublin, the National Museum, Dublin, the Ordnance Survey, Dublin, the Royal Dublin Society, the Royal Irish Academy, the National Library, Dublin, Armagh County Museum, the National Library, Dublin, the Geography Library, Trinity College, Dublin and the Geological Survey of Northern Ireland. I thank also Declan Burke for taking many of the photographs. Ms Phyllis Du Noyer-Hayes, for family information, and especially to Dr. Patrick Wyse Jackson and Professor C.H. Holland for their advice and encouragement.



Tail-corn

'Ordnance model of the Lake District'

The National Library of Scotland has recently acquired a poster, reproduced at a reduced scale opposite, advertising 'Mayson's Ordnance Model of the Lake District'. The original poster is approximately A3 size, and is printed in green, black, carmine and gold on a faint yellow-brownish ground. It was acquired from a dealer,⁴² who dates the poster to *circa* 1873 and says in his catalogue: 'Mayson's, Keswick's first photographers and postcard sellers, had a huge plaster model of the Lakes built from the OS map by an Italian sculptor, which they displayed in their vast studio in Lake Road. When folding maps were uncommon and people were unused to climbing, they studied routes on the model and went off for a day's climb afterwards. It was still there about ten years ago, leaning against a wall, rainwater running down it, from a hole in the roof. Where is it now?' Where, indeed! Can anyone help?

⁴² Michael Moon of Whitehaven; *Sheetlines* is indebted to Miss Margaret Wilkes of the National Library of Scotland for drawing the matter to our attention.

MAYSON'S

ORDNANCE MODEL

OF THE

LAKE DISTRICT

EXHIBITED DAILY DURING THE YEAR

AT THE

LAKE DISTRICT
REPOSITORY

LAKE ROAD
KESWICK

THIS MODEL has been constructed mathematically from the Ordnance Survey, after great labour and at a heavy cost. It contains 210 square feet,—the horizontal and vertical scale being 6 inches to a mile, and coloured to nature. All the Mountains, Lakes, Tarns, Waterfalls, Rivers, and their Tributaries; Woods, Roads, Villages, Villas, etc., are correctly delineated.

Parties visiting this Model will see the correct Topography of the Lake District, and can thereby readily plan either long or short excursions as time will permit. They will also gain a better idea of the whole of the Lake Country than is to be obtained from any other source.

OPEN AT EIGHT A.M. AND LIGHTED DURING THE SUMMER MONTHS

ADMISSION ONE SHILLING EACH

RGS/OS Education Consultative Committee

As many of you will know, the Charles Close Society has been represented on this committee (which is chaired, incidentally, by Chris Board, who is also the new President of the British Cartographic Society) in the past by Peter Clark. His place has now been taken by the present Chairman, who intends to present Society members with a brief report after each meeting.

The last meeting took place on 12 November 1992, and among the items on the Agenda were a review of the OS Annual Report and Trading Accounts for 1991/2, a report on 'The future history of our landscape', (see the report on the opposite page), and discussions and the following OS Information Papers: 92/8 OS Triangulation Pillars, 92/9 New Educational Initiatives, and 92/10 Cycle routes on Landranger mapping. The following Consultative Papers were also reviewed: Planning assumptions for 1993-97, Impact of the Global Positioning System on national mapping policy, Improving the quality of the land-line database - a discussion of co-ordinate shift, OS standards of service to the professional user. Other topics included the Guide to digital copyright, OS price review 1992 and feature code 98 (road centre lines) in land-line data products.

As it would take too much space to report on every item that was considered, I have selected three for comment. If any member wants further information, I shall be happy to bring the papers to the AGM for them to look at - please don't hesitate to write if there are any questions which can't wait till then.

The new-look Annual Report was the first item to be discussed in detail. The general opinion was that this was less informative than usual. The notable omissions were the two usual appendices on Consultative Committees, and the list of papers and reports published during the year and graphic indexes for the small-scale maps, overseas mapping and office locations. The Consultative Committee thought that this was useful information which should be restored if possible - **what do you think?**

On the other hand, a major innovation with the new report was its physical splitting into two parts: report proper and separate trading accounts. We detect here the influence of the new Director General, whose presentation to the Survey and Mapping Alliance at the RGS in May 1991 was notable for its criticism of the way in which OS presented its accounts. We have now, for the first time, a detailed breakdown of OS costs, including a statement of the DG's salary (how little he earns compared with comparable posts in industry - privatisation would undoubtedly improve remuneration in the top posts). The two documents together bear a close resemblance to the company reports delivered to shareholders, and, if looked at in that light, are easily the best I have seen for some time.

In considering 'The future history of our landscape', (in effect, the preservation of the digital map record) the Chairman of the Consultative Committee asked each of us to consult our respective groups about answers to the following questions:

- 1 - What features do we wish to see preserved on the map?
- 2 - How do we think the record could be used in the future: by whom, and how often?
- 3 - What could be the consequences of data deletion?

Please send me your ideas on these three questions as soon as possible so that I can represent your views at the next meeting.

There was an interesting discussion on OS's new educational initiatives, which are still in the development stage and include OS country street atlases and Pathfinder map coverage, colour aerial photography and 1:50,000 Place Names Gazetteer, together with software to manipulate the data on CD-ROM. Also expected for publication soon is a Teacher Resource File to support the 1:50,000 Port Talbot Project Map. It will contain maps, aerial photographs, digital terrain models, pupil activities and background information. This will be the first of a series, and will be spiral-bound, printed in black and white, so that it will be photocopyable, and will cost about £45:95.

The Information Paper on cycle routes on Landranger mapping contains changes of policy which will affect future revision of the 1:50,000 scale. At the moment, there are three categories of cycle ways: 1, tracks, which are highways with a right of way for pedal cycles, which are separated from other traffic; 2, paths, which are purpose-built surfaces along a route separated

from roads and open to cyclists, walkers and occasionally horse riders; 3, routes, which are scenic or leisure routes following minor roads with no separation from other traffic.

The OS Small Scales Map Design Working Party decided, after experimenting with various options on Sheet 139 (*Birmingham*), that it was impracticable to show urban cycle tracks at the Landranger scale; paths longer than 5km could be shown, described and named, perhaps with a symbol indicating multiple usage; it was impossible to show scenic routes without cluttering the map. It has therefore been decided to remove the scenic, or leisure routes, and to add a blue 'footprint', 'cycle' or 'horse' symbol, where appropriate, to category 2, above.

Yolande Hodson

Recent meetings

An informal meeting

On Saturday October 10 five CCS members - John King, Walter Paterson, Roger Stubbs, Gerry Zierler and Tim Nicholson - met at Tim's flat for an informal gathering, comparing notes, seeking and gleaning information, and showing treasures. As an ice-breaker, Tim Nicholson opened proceedings with a chat about OS maps for special purposes, but it wasn't necessary - a relaxed atmosphere ruled from the start. Among the subjects brought up were Place's waterproof maps, maps of Southampton and the New Forest, and footpath maps, of which Roger Stubbs produced different printings of that related to Oxford (see *Sheetlines* 21, pp.3-4). Gerry Zierler showed some unusual OS-based RAF maps of the Second World War and later, as well as 'specials' relating to London's fringes, among them a 1:25,000 map of Epping Forest (1983) in the Corporation of London's brochure for the Epping Forest Centenary Trust.¹

John King brought a quantity of OS extracts for schools, including those enlarged from the Seventh Series One-inch to 1:50,000 in 1971 - three years before the first standard maps on this scale appeared. Presumably the object was to help accustom children to the metric system, then being introduced into everyday life in Britain.² As on the coming 1:50,000 map in its first form as a simple enlargement of the One-inch, the original contours were left in place with heights in metres substituted for feet, but an *m* was added to the figure, thus 107*m*.³ Oddly - since the symbol was dropped in 1965⁴ - extracts were taken from maps that still showed Roads used as public paths with a red dot at each end and a red *W* in the middle.⁵ Another curiosity was an extract from Seventh Series Sheet 180 without contours.

Punctuated by coffee, tea, and a lunch-break at a nearby restaurant with a reasonable house-red, the day went by quickly, and ended with promises by most present to run more such meetings.

'The future history of our landscape'

... was discussed at a seminar at the Royal Society on 16 October, organised by the British Academy, British Library, Ordnance Survey, Public Record Office and the Royal Society, with support from, *inter alia*, the British Cartographic Society. Attendance was by invitation only, of which some sixty people took advantage. The meeting was called in order to consider the problem of archiving digital mapping, mainly of OS provenance, in public repositories. Hitherto the legal deposit ('copyright') libraries have received OS large-scale material either as conventional printed maps or as silver halide microform cypocards. The production of the former has now stopped, and the OS cannot guarantee to supply the latter after 1997, by which time analogue 1:10,000 and larger-scale production will have ceased entirely. The nub of the

¹ [Copies of this map, price £4:50 have been seen recently on sale in Stanford's, 12 Long Acre, London, W.C. *Ed.*, *Sheetlines*.]

² [The Editor of *Sheetlines* thinks this last statement *rather optimistic*.]

³ [This style was also used on some earlier metric specimens prepared and distributed in 1969, and was standard on the Bartholomew 'National' 1:100,000. *Ed.*, *Sheetlines*]

⁴ Letter, OS Map Production Planning Branch to John King, 11 March 1974.

⁵ Where no road actually appeared on the map, walkers were left to guess its line in between dots and *Ws*. What did the *W* stand for?

problem is that it is convenient for OS to supply the mapping in digital form on tapes or disks - whether as an annual update of the whole country, or as individual components are updated is a comparative detail - whereas the legal deposit libraries would prefer something more directly comparable with the analogue forms of mapping which they have received hitherto. The papers delivered at the seminar are expected to be published in the *Cartographic Journal*,⁶ and a working party has been set up to study the question and produce recommendations. One great difficulty at present is that there is little knowledge of precisely what map library users want: it is manifest that they want OS large-scale mapping, but it is almost completely unknown what they do with it once they have it.

The following Summary and Conclusions have been circulated to those who attended the meeting:

The following key points arose from the presentations and discussions:

1. Digital systems are the way forward for the data providers now and are likely to become the preferred option for data information holders and for users at some stage in the future. Such digital systems offer enhanced capabilities for viewing and analysing information and may well provide advantages in minimising storage space. No one present favoured a Luddite approach to new technology; all recognised that technological change would continue just as rapidly in future.

2. Nevertheless, new arrangements need to be agreed between OS and the Copyright Libraries, before OS ceases formal publication of large scale mapping, to ensure continuity of the comprehensive evidential record. For reasons of cost, comparability and archival permanency, the Libraries see microform images as the best short-term answer to user needs.

3. Given the advantage of digital storage, conversion of existing historical records into this form had much to commend it (notably to facilitate study of change through time) though the costs of doing so would need careful justification, and would almost certainly involve the private sector.

4. Technical barriers to be considered included the durability of the storage medium and the continuing availability of devices to read the record and the problem of standardisation. Dialogue on the latter between data collectors, archivists and users is essential.

5. There is a great diversity of users and many applications for archival map information. Some of those users will be able to pay market prices for maps and data and be sufficiently technologically competent to handle computerised information; others, notably small users, will be incapable of paying 'normal' charges and may be incapable of use of high technology. It is vital that the latter group is not disenfranchised: their needs must be fully considered. Specific examples of small user groups with low spending power are non-governmental organisations and the educational sector.

6. The evolving 'market' for archival mapping information contained structural tensions. The need for high quality, cost-effective professional servicing ensured a need for centralisation taking advantages of economies of scale. On the other hand, the users were highly dispersed and existing delivery systems - involving journeying to one of the Copyright Libraries - might well be inadequate in future. Therefore, communication systems are likely to play an important role in ensuring access to the data.

Conclusions

The audience:

welcomed the technical advances described by OS, British Geological Survey (BGS) and National Remote Sensing Centre because they provided the opportunity of better service in the future.

noted that, as there are many user groups and many different interests therein, no single historical archive would be adequate. The OS topographic map archive however is an essential record for a very large number of purposes;

⁶ This will no doubt include several papers from overseas speakers which, whilst interesting, had the unfortunate effect of inspiring in certain members of the audience aspirations (such as the digitising of the analogue archive), the satisfaction of which would merely be a distraction from the great central problem.

recognised that, as a result of the above, the 'system design' must be carried out so as to ensure existing statutory obligations (e.g. for evidence) and other expressed needs including those of small user groups for the historical data could be met within budgets likely to be available;

stressed that the Copyright Libraries play an important role in making the OS topographic record available to a range of people and organisations and wished this role (or something equivalent) to continue;

noted the statutory obligation of the Public Record Office for preserving the historical records and observed that responsibility for some such information was devolved to the data producers (e.g. the Greenwich Observatory);

accepted that OS, BGS and other data producers were now under severe pressure to recover a very large proportion of their costs by sales of goods and services and that this might well conflict with traditional provision of historical and current information at nil or minimal cost to libraries themselves subjected to severe funding pressures;

affirmed the vital importance of adhering to agreed technical standards based on discussions between representatives of data providers, archivists and users;

welcomed the OS offer to extend provision of microfilm records in silver halide form from 1995 to 1997 as an interim solution, thereby providing time to plan and implement a longer term one;

applauded the offer by OS, the Copyright Libraries and the PRO to get together with government and other interested parties to define a long term solution which met the needs of the users (though the potentially large resource and legal deposit implications were also recognised);

stressed the importance of taking the long term view, rather than adopting some short term expedient;

urged that experience elsewhere in Europe and in the USA be borne in mind in the planning and implementation of the future facilities.

The 1:1056 mapping of Manchester

On 7 November sixteen members attended a meeting in the Department of Geography, University of Manchester. The main attraction was Chris Perkins, speaking on 'Joseph Adshead and the Ordnance Survey'. The Ordnance Survey in this instance was the 1:1056 (five feet to one mile) map or plan of Manchester published in 1850-51; Joseph Adshead was a Manchester politician and prison reformer who produced a one inch to one chain (1:792) map of Manchester, also published in 1851. Chris considered why Adshead might have embarked on his venture - one of the last city maps to be published on a subscription basis - at a time when the OS enterprise was in the offing, and made some interesting comparisons between the two maps. The OS shows internal building detail; Adshead does not, but he does show urban land-use - for example distinguishing between residential and commercial buildings - in a way which the OS does not. The OS map covers all of Manchester and Salford, on regular sheet lines, and is engraved; Adshead's covers Manchester only, arranged by wards, and is lithographed, with some copies hand-coloured. Chris then asked whether one should believe the information on the maps, and drew on a dissertation by one of his department's undergraduates. This showed the OS to be generally much more detailed, despite the smaller scale, but Adshead actually states road widths, and specifies mills and other business premises. The OS also offered slightly better spatial accuracy. Adshead named 210 public houses, whereas the OS named only 191, but only 95 per cent of the latter also appear on the Adshead map, and 22 per cent have different names!⁷

In temporal terms, was it the same Manchester which was being mapped? There is an apparent overlap in dates, in that the OS claims to be surveyed in 1848-50, whereas Adshead claims to be surveyed between 19 June 1850 and 19 May 1851. However, there are sometimes startling discrepancies: the mapping of the Manchester Royal Infirmary differs greatly between the two; the OS does not show the extensions thereto built in 1845, which throws the 1848

⁷ It is possible that a search of the magistrates' records might throw light on these discrepancies.

survey date for that sheet into question! Further evidence accumulated by Chris Makepiece⁸ also points to a pre-1845 'situation date' for the OS mapping, and it is known that survey work was in progress in the city in 1843-4.⁹ In discussion, it was stated¹⁰ that though since 1888 the 'survey date' on OS maps has represented the date when the map was last field-checked, before then it was the date on which the Divisional Officer certified that the fair-drawn manuscript plan was fit for publication; this might well be twelve months or more after the date of field-checking.

After lunch¹¹ Richard Oliver read out the text of Winterbotham's *The Replotted Counties*,¹² making comments as he went along; these suggested, firstly, that replotting was in theory not quite as dubious a practice as later writers have suggested, and that it was by no means reasonable to blame Sir Henry James for the debacle. The proceedings concluded with members producing various large-scale oddities of their own, including:

1:21,120 (3 inches to 1 mile) mapping of the Manchester area, reduced from 1:10,560 for town planning purposes c.1920.

1:2500 mapping of Fullers Earth Union Ltd property at Redhill, Surrey, based on the 1934 OS revision, updated 1962 and 1966 by Hunting Air Surveys to show extent of quarrying, and with contours at 5 feet VI; this mapping was used to estimate mineral reserves, and was prepared once every five years or so. It was produced to the meeting as an example of mapping of considerable historical interest, which is not published and which is liable to be destroyed as working documents of no great interest.¹³

Various street maps of the Potteries, taken directly from OS 1:10,560 material, and apparently mostly dating from between the wars.

An OS 1:10,560 composite sheet of Wolverhampton and the country to the north, probably dating from c.1900-04.

Various Goad fire insurance plans, which are a useful supplement to OS large-scale plans.¹⁴

The Society's thanks go to Chris Perkins for organising a most interesting day.

The 1:50,000 Landranger map 'on screen'

On 5 December a dozen members visited Taywood Data Graphics at their premises in Greenford, Middlesex, to see some of the work of producing raster images of the OS 1:50,000 map.¹⁵ What we saw fully justified expectations: the images obtained really *are* so good that (provided they are not enlarged too much!) they look as though they are parts of the paper maps, cut out and pasted on a screen. Explanations were given by Richard Mason, assisted by Martin Kendall.

Taywood are a division of Taylor Woodrow, but the parent firm only supply about one per cent of Taywood's business. Taywood have been one of the main contractors for vector-digitising of the OS 1:1250 and 1:2500, and is also working on raster images of the 1:10,000. Most of the volume work is undertaken at Thornaby, on Teesside, where costs are lower. Raster scanning can be used both for maps and for other images, such as air photographs, which can be used as a background on which other information can be superimposed.

Whereas vector digitising is carried out by tracing the analogue map detail manually, raster digitising is undertaken by scanning the map. This is done by attaching an ordinary paper 'sales

copy' of the map to a drum in the scanner; the drum is then rotated at 1000 rpm, and separate scans are made for red, green and blue. Once that is done the image has to be 'warped', so that each sheet will meet up with its neighbour, and the whole can be recast in 'tiles' of 20 x 20 km, of which 812 are needed for the whole of Britain. Before 'warping' there are liable to be undershoots and overshoots along the junction of the paper sheets. Taywood have responsibility for solving small edge-matching problems: larger ones are referred to OS for their attention. No doubt the 100-metre discrepancy where the new course of the A 604 passes between Sheets 152 and 153 would fall into the latter category. It must be added that these faults pass unnoticed by the vast majority of map users, and arise because each 1:50,000 paper sheet is treated as an independent entity. The drum-scanning is about 20 per cent of the task and subsequent editing about 80 per cent. Scanning is by 'pixels', at 250 to the linear inch, i.e. 62500 per square inch, which represents an accuracy of 1.5 metres on the ground; this is rather more accurate than are the original paper maps, which are drawn to a tolerance of 0.2mm at map scale.

It was asked why the scanning was made using ordinary paper sales copies of the maps, which are subject to variations in paper size and in printed colours, as well as imperfect colour registration. One reason is that whereas the maps are printed in four colours - black, magenta, cyan and yellow - combinations of these mean that an illusion of about fourteen or fifteen colours is created. To do this means a separate piece of plastic for each of the synthetic colours, and the cost of preparing a duplicate set for scanning would be expensive; evidently more expensive than the 'warping' and other editing work which arises from the use of ordinary sales copies. A second reason is that whereas the maps are printed on an subtractive basis - for example, 'green' is obtained by combining cyan and yellow - scanning is on an additive basis, hence the division into red, green and blue. Edge-matching includes principal communications, but not B- or lesser-class roads or contours, for example. Insets and coastal extrusions have to be extracted and moved to their proper place. OS are responsible for overall quality control of the finished product.

Although the maps are scanned with a theoretical maximum of 16.7 million colours, in practice a perfectly acceptable result - both visually and in terms of computer 'bytes' - can be obtained with the use of only 16 colours. The finished product is being made available in a wide range of formats, and complete sets have already been sold to the Ministry of Agriculture¹⁶ and to the National Grid.¹⁷ To have the whole country costs about £40,000; individual 'tiles' cost £60 plus VAT. Uses include site location analysis, environmental studies, market analysis, vehicle tracking, navigation, and by telephone companies for siting transmitters; it can be linked to other datasets, such as the OS 1:50,000 gazetteer. A sales advantage is that people relate to the 1:50,000 as 'the map you buy in Smith's'. As new editions of the 1:50,000 paper maps are published, so will they be scanned, enabling a regular updating service.

We saw also some examples of the 1:10,000 raster work: the results, judged by a printout, are most impressive, though it was gathered that a considerable problem is presented by the variable colouring of contours on these maps: those with contours in dark brown will colour-separate much more easily than those with them in light orange.

The Society's thanks go to Mr Mason for providing us with an absolutely fascinating demonstration, both explicitly of a new development, and implicitly of some of the limitations of analogue mapping.

'Viator'

⁸ The author of the notes for a number of the Manchester maps in the Godfrey Edition.

⁹ See papers in Public Record Office WO 44/702.

¹⁰ By Richard Oliver.

¹¹ *Ahem.*

¹² H.S.L. Winterbotham, *The Replotted Counties*, (London, H.M.S.O., 1934), pp.3-8.

¹³ The set produced in Manchester was thought to be the only surviving F.E.U. example.

¹⁴ A few years ago Goad were selling off their stock, but it is understood that this is now exhausted, and that they can only supply modern shopping centre plans.

¹⁵ See also *Sheetlines* 34 (September 1992), p.31. A 'raster' image is analogous to a television picture: one can enlarge it or reduce it, but unlike 'vector' data one cannot subtract from or add to it.

¹⁶ OS's sponsoring ministry between 1890 and 1965.

¹⁷ The kW, not OS, one.

Additions and corrections

The carto-bibliographies of the One-inch Old Series maps of Essex and Kent

On page 7 of my sheet histories booklet¹ I noted that one reason for including an account of the special *London and its environs* sheet was that it provided evidence that changes were sometimes made to the topographical matter of the maps without corresponding changes in electrotype dates. A copy of Sheet VI (*Maidstone*) has now come into my possession which confirms that this also occurred in at least one of the Sheets of the Old Series proper.

I recorded that copies of State 15 in the Bodleian Library and elsewhere with Electrotype date 1865 included the railway from Tunbridge Wells to East Grinstead (opened 1 October 1866); my new acquisition is also dated 1865, but this railway has not been inserted. This copy must be designated State 14.2, as State 14.1 has already been allotted to the undated electrotype reported with railways additional to those in State 14.

I expect that other students of the Old Series will have discovered examples of the same thing by now. I should be glad to hear of any affecting the sheets in my two booklets, covering Essex, Kent, West Somerset, Devon and Cornwall,² (Old Series Sheets, I-VI, XX-XXVII, XXIX-XXXIII, XLVII, XLVIII).

Guy Messenger (Address: 5 Wheatley Avenue, Uppingham, Rutland, LE15 9SN)

To Guy Messenger's lists of 'pre-war' Bender-fold sheets, in Sheetlines 32, p.57:
One-inch Popular Edition of England and Wales: 56, 1539; 71, 2539.

To Tim Nicholson's article 'One-inch military "Specials" 1923-1940', in Sheetlines 33, pp 21-34:

Roger Hellyer draws our attention to some One-inch extracts, for examinations:

Officers Training Corps: Examination for Certificate 'A': Tactics:

March 1920, First Paper (Parts I and II) - 1-inch 3rd Edition LSS 124, black, water and contour plates only (as described in Guy Messenger's monograph, p.180, but for the imprint date, so this is a further state, with a reprinted title, and the lack of the 6.12 railway revision code)

November 1920, First Paper (Parts I and II) - extract from 1-inch Popular 121, (retaining the two-inch squaring). MV 1919, printed 1920.

March 1921, First Paper (Parts I and II) - extract from 1" Popular 138, (retaining the two-inch squaring). MV 1919, OS 1921

Officers Training Corps: Examination for Certificates of Proficiency: November 1921 - (Part of) Salisbury Plain (Popular Edition One-inch Map), . MV 1921, printed OS 1921

To Tim Nicholson's article on OS bicentenary covers (Sheetlines 34, pp.8-11):

Another source of OS bicentenary first day covers is: Steven Scott, The Stamp Centre, 77 Strand, London, WC2.

(Thanks are due to Roger Hellyer, Tim Nicholson and Mr Toad for drawing attention to these.)

New maps

Ordnance Survey of Great Britain

New publications between 1 August and 30 November 1992 included:

Conventional paper maps:

1:25,000 *Pathfinder*, (Second Series), revised sheets: 408 (NT 47/57), 956 (SP 47/57), 1187 (SU 46/56), 1332 (SY 68/78), 1368 (SW 32/42) (all edition B).

1:50,000 *Landranger*, Second Series, revised sheets: 41, 85, 107, 113, 120, 132, 143, 167, 178, 185, 199, 201, 202, 203, 204 (all edition B).

Digital mapping:

¹ Guy Messenger, *The sheet histories of the Ordnance Survey One-inch Old Series maps of Kent and Essex*, (London, Charles Close Society, 1991).

² For the south-western sheets see Guy Messenger, *The sheet histories of the Ordnance Survey One-inch Old Series maps of Devon and Cornwall*, (London, Charles Close Society, 1991).

Superplan: As from 1 November 1992 the full Superplan service is available for London to M25 (2925 sq km), Glasgow (1300 sq km), Greater Manchester (1550 sq km), West Midlands (1450 sq km) and Avon (1875 sq km). The Limited Superplan Service continues to expand slowly, with another 250 sq km available from 1 November, including 25 sq km around Edinburgh.

Price rises: As usual, Ordnance Survey increased its prices on 1 November 1992. The standard coloured 1:25,000 *Pathfinder* (Second Series) is now £3:95 per sheet (except for 1126 *Gower*, which is £4:30) and the corresponding 1:50,000 *Landranger* is now £4:25 per sheet. These price increases are well above the rate of inflation, particularly for the *Pathfinder*, and one can only suppose either that the market is holding up or that the machinators of Full Cost Recovery are getting desperate. 1:1250 and 1:2500 Superplan paper plots in National Grid Sheet Format (i.e. directly comparable with the superseded paper maps) are £40:00 on paper; comparable prices for the obsolescent paper mapping are now £24 for the 1:1250 and 1 x 1 km 1:2500s, and £34 for 2 x 1 km 1:2500s. 1:10,000s are now £32:00. The Superplan customised plots are very much more expensive, with, for example, a price element of £2.50 per hectare for the first 50 hectares from 1:1250 source data, plus various charges for scale enlargement, plot rotation and feature suppression and enhancement, so that a 25 hectare 1:1250 printout with certain features suppressed or enhanced would, if we read the prices aright, cost £82:50.

Ordnance Survey of Ireland

1:50,000: Sheets 25, 70, 71, 79.

At the time of going to press your editor has only seen Sheets 25, *Collooney* (ISBN 0-904996-04-2) and 70, *Dingle*, (ISBN 0-904996-05-0), though the other two may be on sale in London by the time this is published. Sheet 25 appears to differ from Sheet 16, *Benbulbin* (reviewed in *Sheetlines* 34, pp.50 ff) only in that the Northern Ireland road classification is omitted, disused/dismantled railways are shown by a more bold pecked line, and overbridge clearances (as on the 'New Edition' of Sheet 78) are given. (Contrary to what was said in *Sheetlines* 34, the red symbol is used on Sheets 16 and 25 for ruined churches; churches in use continue to be shown in black.) Sheet 70 has bolder lettering for villages, a note re N-road numbers, and some alterations (or is it adaptation to regional distribution?) to antiquity depiction. As compared with Sheet 25, 'Named Antiquities' are now shown by a red dot instead of a red rectangle; the symbol for 'Fort' is enclosed by a red open circle described as 'Enclosure, e.g. Ringfort'; the symbols for churches and castles are omitted; and 'Battlefield (with date)' (red crossed swords) is added. There is a greater variety in letter size and emphasis than on previous sheets, and this is a big improvement, though this observer dislikes the yellow for building infill on this and other recent sheets. On Sheet 70 the mapping of antiquities in red combined with the splendid brown contours makes for a most striking effect; the improvement in this respect can be gauged by a comparison with the One-inch coloured Sheet 160/171, revised in 1899 and published in 1906.

Ordnance Survey of Northern Ireland

Sheets 7 and 17 were both reprinted with amendments in 1991.

The Godfrey Edition

Between 3 September and 15 December 1992, coverage was extended to the following: Blyth (Northumberland); Harpenden; Lancaster; Morecambe; Peterhead; Portsmouth/Gosport; Stalybridge; Swindon.

We particularly commend London 98, *Barnes 1867*, a splendid reproduction of the original engraved sheet. It is rare that facsimiles are *ravishing*; here is an instance. (The scale has been reduced to about 60 per cent of the original, and no doubt this has helped to maintain the sharpness of the lines.)

*** We understand that *The Greenwich Meridian*, reviewed in *Sheetlines* 34, p.47, has now gone out of print.

Lighted up

How many towns in London town?

N.B. - There are of course two CITIES, but I only know of three VILLAGES, and these do not include GREENWICH VILLAGE which is in NEW YORK.³

Guy Messenger

A more recent, though less conspicuous, example of a discrepancy between the name on the map and the name on the cover was to be found on 1:50,000 *Landranger* Second Series Sheet 106 in 1990. Up to and including the A/*/* (1985) edition the town in the north-east corner of the sheet was named Great Driffield; on the B (1990) edition the name was changed to plain Driffield. However, the first issue at least of the B edition retained Great Driffield on the cover. It is not known whether this was an oversight or simply an instance of using up old stocks of covers.

Aha!

Consolation in TQ 1072 SE

Bass Taverns have recently opened a new pub in Feltham, *The General Roy*; the name was chosen following a competition, on account of proximity to the Hounslow Heath base line. The walls are decorated with cartographic memorabilia, including a 1:500 site-centred plot presented by OS. (We do not know the exact location of the pub, but it is somewhere in TO 1072 SE.)²

Corrections in writing, please

George Jasieniecki draws attention to the notice illustrated here, pasted inside the cover of Half-inch England and Wales (Large Sheet Series) Sheet 40, published in 1908 and reprinted in 1910. Guy Messenger reports that the new road was added to the 1911 edition of Sheet 40, and that on the one-inch scale the new road is absent from the Third Edition *East Kent (North)* sheet of 1906, (where 'Ferry' appears in place of a bridge) but appears on Third Edition (Large Sheet Series) Sheet 118 in its earliest known printing, '11.10' (118.1u). An apparent anomaly is that the name 'Pluck's Gutter' appears on the 1911 edition of Half-inch Sheet 40; it is absent from the Third Edition one-inch, but appears on the Popular Edition.

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"The 2nd Class road at E. Stourmouth is now continued to
Gore Street, crossing the River Stour by a Bridge."

The One-inch Eighth Series

The 'One-inch Eighth Series phenomenon' was commented on in a footnote in *Sheetlines* 34, (p.57, n.52). Now John Paddy Browne draws our attention to a recent advertisement in *The Bookdealer*³, in the 'wants section', and asks 'Have we been missing out on something?':

BRIDGE OF ALLAN BOOKS

**2 Henderson Street, Bridge of Allan,
Stirlingshire FK9 4HT**

C. H. Waddington. The Strategy of Genes (1957)
Itten. The Art of Colour (with colour prints)
Goethe. Theory of Colour, both these in English
J. D. Fergusson. Modern Scottish Painting (1943)
The High Tops of Black Mount (M/Breadalbane)
Ordnance Survey maps, 1", 7th or 8th series:
nos. 2, 18, 20, 49, 73, 74, 78
Richard Saville, ed. Economic Dev of Modern
Scotland (1985)
Gordon West. Jogging Round Majorca (1930s)

³ [New York, N.Y., and not New York, Lincolnshire [TF 2555]. The latter is less populous. *Ed., Sheetlines*]

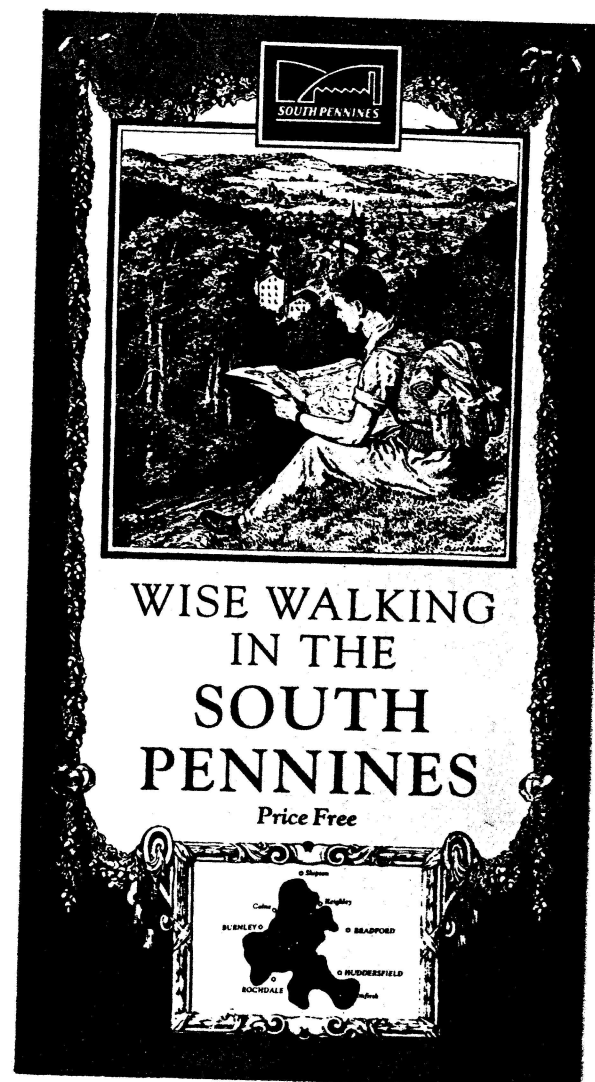
¹ These quotations are from an insert, 'News from the Change Team' in *OS News* 125, Nov/Dec 1992. (Italicisation added.)

² Information from *OS News* 125, Nov/Dec 1992.

³ No. 1076, 29 October 1992, p.45.

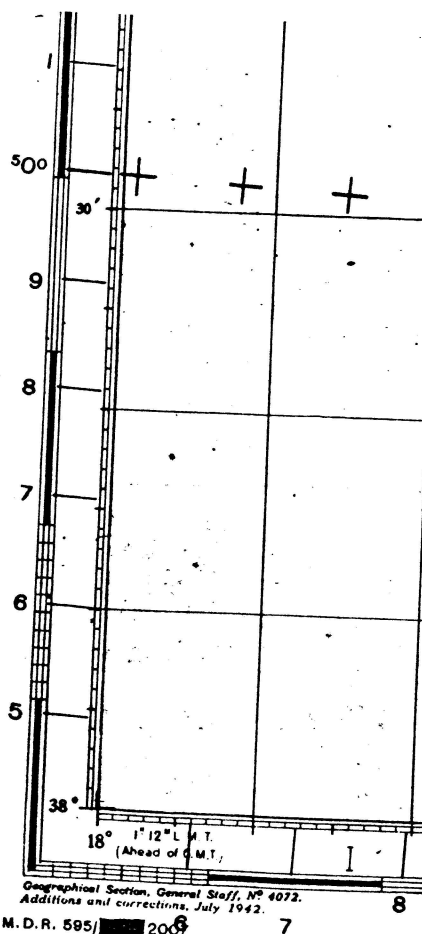
Ellis Martin, up to date and out of place

Following on from Tim Nicholson's remarks in *Sheetlines* 34, p.9, Bill Henwood draws our attention to a leaflet, 'Wise walking in the South Pennines', illustrated here; it appears to be the child of Bradford Planning Department, and uses what may perhaps be described as a *per-version*⁴ of Ellis Martin's cover design for the OS One-inch Fifth Edition. It will be seen that in the South Pennines not merely is it politically incorrect to smoke a pipe, but it is evidently equally politically correct to walk in a semi-industrialised landscape; mills (with the chimneys not smoking, an obvious political statement) have been inserted into the original, though whereas Ellis Martin's name was at one time omitted from his otherwise unmauled design for the *Roman Britain* map, here it is retained. One seems to recall various things in the Copyright, Designs and Patents Act of 1988 as to the moral obligation to identify the author of a work, and also a right to object to degrading treatment...



Colour-tabs and proof copies

A reader has recently asked whether the colour bars sometimes encountered on OS maps are of any significance, and whether they denote a proof copy. The answer to this is not straightforward. Colour bars are often met with on proof copies, but to the best of your editor's knowledge since about 1939 or so all OS proofs have borne a rubber stamp to that effect. Colour bars are usually absent from 'production' copies of maps, with the following exceptions: (1) they are often present on military maps produced during World War II, and (2) in recent years they have been standardised on map extracts for school examinations; it is known that some years ago a batch of map extracts omitted the brown plate,⁵ and possibly this led to the provision of colour bars as standard, though occasional earlier exam extracts with this feature are known.⁶ The extract is from GSGS 4072, (1:500,000 Europe (Air)), sheet N.E. 38/18, Reproduced by 512 Field Survey Co. R.E., June 1943, from W.O. pulls.



⁴ W.S. Gilbert's term for his *Princess Ida* vis-a-vis Tennyson's *The Princess*.

⁵ Information from John P. King.

⁶ e.g. an extract from One-inch New Popular Sheet 107 of 1950.

What the papers say...

Sheetlines is indebted to Mike Miller for the following, which was first published in *The Scotsman* of 5 March 1851, and reprinted on 11 March 1989, with the prefatory comment 'Indignation breathes strongly from this report on Scotland's Ordnance Survey'.

ORDNANCE SURVEY OF SCOTLAND

In August last the British Scientific Association⁷ called the attention of the Government to the slow progress of this national work, and ... the subject was under consideration in the Royal Society of Edinburgh. A committee of the latter has issued a circular to the Conveners of Counties and Magistrates of Burghs, showing the necessity of prosecuting this survey with greater vigour, and suggesting that the county and burgh constituencies should memorialise the Government, and press the subject on the attention of the members of both Houses of Parliament connected with Scotland.

We published an article on this Survey some months ago, but its national importance justifies us in returning to it, and we have now the advantage of possessing more ample details on the subject, derived from Mr Keith Johnston's *Historical Notice of the Progress of the Ordnance Survey in Scotland*, read a few days ago before the Royal Society.⁸ An outline of the facts taken from this paper is worth volumes of argument in showing how scandalously the interests of Scotland have been neglected.

'The Government (says Mr Johnston) felt so greatly the want of a tolerable map of Scotland during the Rebellion of 1745-46, that it was resolved, on the suggestion of the Duke of Cumberland, to commence an actual survey of the whole country.⁹ The survey, which was limited to the mainland, was commenced in 1747, and completed in 1755. When the drafts of this map were completed they were deposited in the Royal Library where they lay totally forgotten until 1804. In 1815 the Ordnance department appointed Dr McCulloch to make a geological examination of Scotland; and his researches were continued till 1821, but were not completed for want of an accurate topographical map.¹⁰

'The survey of Scotland was begun in 1809 but its progress appears to have been considered of so little importance in comparison with the survey of other portions of the kingdom, that, whenever it was found convenient, the whole of the men and instruments were unceremoniously removed to England or Ireland: and in order to expedite the work in the latter country, the operations in Scotland were altogether suspended during a period of sixteen years. The total sum expended on the survey in Scotland from its commencement to the present time has been only £66,000: while the sum expended in England has been £702,000 and in Ireland £820,000. In June 1849 the number of men employed in Ireland was 1210, while in Scotland the number was only 257.¹¹ Although large sums have frequently been voted to Scotland they have often been expended in England and Ireland. The survey of Scotland is still little more than begun, the map of only one county, Wigton, forming about a sixty-fourth part of the area of the country being published. At the present rate of progress, fifty years would be necessary for its accomplishment... it is clear that five times the present force or five times the amount granted would finish the survey in ten years.'

⁷ [This should of course be the British Association for the Advancement of Science, and is a good example of a reasonable case being spoilt by sloppiness. Ed., *Sheetlines*.]

⁸ [This was read on 17 February 1851, and was published subsequently as a pamphlet.]

⁹ [This is somewhat at variance with the facts, for which see R.A. Skelton, 'The military survey of Scotland, 1747-1755', *Scottish Geographical Magazine* 83 (1967), 5-16. The 'Government', in Johnston's sense, probably knew nothing of it! This is the difference between polemic and history.]

¹⁰ [Proceedings were not expedited by McCulloch's fondness for fact-finding visits to country houses: see Sir John Flett, *The first hundred years of the Geological Survey of Great Britain*, (London, H.M.S.O., 1937), 17-19.]

¹¹ [The Irish figure is completely wrong: it was 217 on 28 February 1849, and not greatly different a few months later. At the same date the figure for Scotland was 230. See returns in Public Record Office WO 55/963.]

[A Select Committee of the House of Commons on the Ordnance Survey of Scotland was appointed on 4 April 1851, and, after various convolutions, led to both faster progress in Scotland and a larger basic scale for cultivated areas, (1:2500 instead of 6-inch). The survey of Scotland seems to have been absolutely completed in 1882 when the hill-sketching for the one-inch map was finished. Within ten years of 1851 the whole of Scotland south-east of a line from Glasgow to Montrose had been completed; subsequent progress was slowed by the impossibility of working in the highlands for more than about two months a year, because of the climate and the hunting-season.]

What Mr Fogwill said

Anthony Collings draws our attention to the following, in *Trewman's Exeter Flying Post* of 7 October 1802, and asks, 'Perhaps some member vastly more learned than me could comment on how typical or untypical the incident was':

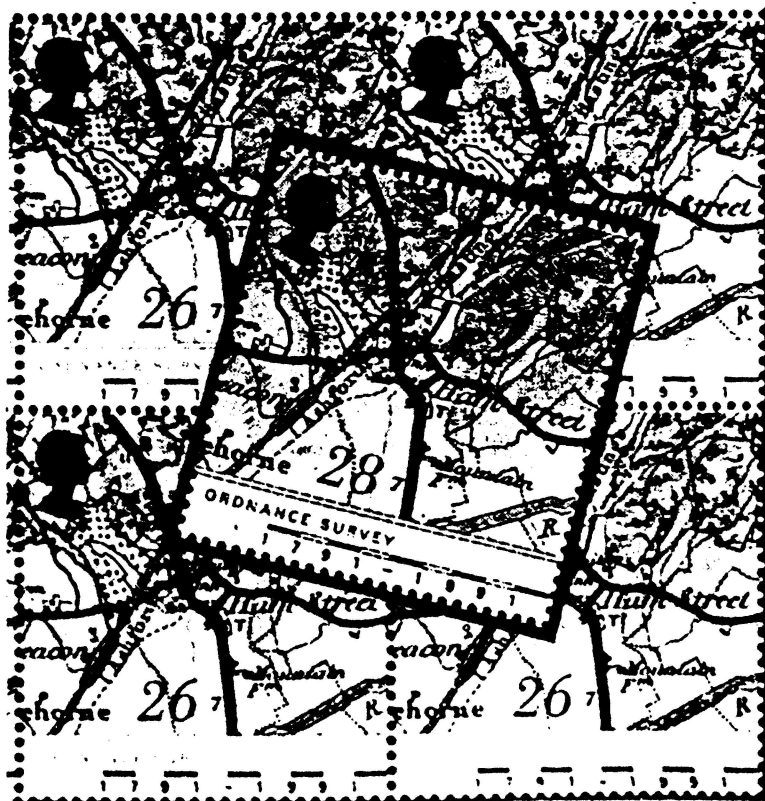
WHEREAS I, ROGER FOGWILL, of Five Lanes Turnpike Gate, in the Parish of Marldon, on the Twenty-second day of July last did violently assault, obstruct, abuse and ill-treat Mr. THOMAS PECKHAM, one of the Royal Military Surveyors [sic], on the Public High Road near the said Turnpike Gate, without any provocation whatever - And the said THOMAS PECKHAM, in consideration of the said ROGER FOGWILL'S hereby acknowledging himself sorry for the Offence, and paying and discharging all Costs and Expenses incurred, hath agreed to forbear prosecuting the said ROGER FOGWILL as the law directs.

Roger Fogwill

Witnesses
JOS GRIBBLE
JNO HURRELL, Jun
Ashburton, October 4th, 1802

More philately

Sheetlines is indebted to John J. Smith for drawing our attention to the following advertisement by Messrs Phillips, auctioneers:¹² 'RARE NEW G.B. VARIETY - The next Specialised Great Britain Auction on Thursday 4th February will include a mint block of twenty of the 1991 Ordnance Survey map 28p design with 26p error of value. This block was apparently purchased at Hastings Post Office, having obviously been produced prior to the raising of the postage rate. It is expected to fetch between £5000 and £8000.'



¹² Of 101 New Bond St, London, W1Y OAS, tel. 071-629-6602; the advertisement appeared in a recent issue of *Gibbons Stamp Monthly*.

Domesday 2000 and Ordnance Survey

'The development of a national land information system (NLIS) - a computerised, modern-day version of the Domesday Book - has moved a step closer with the launch of a pilot scheme... The aim of Domesday 2000 is to develop a nationwide system of databases, enabling immediate retrieval of up-to-date information on land ownership, value and usage. According to Capital & Counties, the property company behind the project, public and private organisations will be able to access the NLIS via PCs in their offices, while the general public will be able to make queries via terminals in libraries, banks or post offices. The company claims it will be possible for a developer or consultant to interrogate the central system and identify sites or buildings of a certain size in a given area, together with land title restrictions, local land charges, infrastructure provisions, existing use, access to transportation and local employment levels.... Capital & Counties is now funding... the development of a demonstration system. The University of East London, along with Ordnance Survey, is producing such a system for use in a programme of workshops and seminars throughout the country', to be operational by the second half of 1993.¹³ 'The basic rationale is that whilst much of [the] information already exists, it is tied up within local authorities or government departments, and cannot be accessed easily. Consistent access to information about land, throughout the country, can be seen as enabling the conveyancing of property, for example, far more easily than at present.... OS... will provide the geographic framework for the project, assisted by digital mapping, land parcel definitions, Address Point and the new object-based data products.'¹⁴

Yet another use for Ordnance Survey maps

In *Sheetlines* 34 it was reported that large quantities of OS 1:10,000 maps were being bought by farmers as part of the arcane process for claiming an oilseed rape subsidy; and now another possible agricultural application for OS maps is suggested. Mike Miller draws attention to a serialised 'Dictionary for our time', by Mike Barfield, in *The Oldie*, where, alongside a number of most valuable definitions¹⁵ we have 'Ordnance Survey Map - Farmer's guide to footpaths due for ploughing'.

A not wholly justified complaint

On September 12 there appeared in the *Daily Telegraph* a letter from David Pelly of Norwich, complaining that for a GCSE geography project his daughter needed a large-scale OS map, but that there was much consternation when it was discovered that the 1:10,000 sheets cost £30 each 'for a minging A2 sheet based on a 1976 survey, with many current features missing', and, as usual, the area of interest fell on two sheets. Nor did four 1:2500 'very indifferent quality photocopies' at £17.50 each appeal. 'The next scale available, the 1:25,000 Landranger, is reasonably priced, but does not have anything like the detail needed for something like a land-use analysis.' (Sic.) Mr Pelly concludes that these prices are outrageous, says that an Admiralty chart ('printed on better paper and fully up-to-date') costs £10.30, and that the OS should be investigated by the Office of Fair Trading forthwith. On 15 September there appeared a letter from David Wall of Southport, suggesting either buying the Pathfinder map (scale not specified) or ask the surveyor's department of the local authority for access (statutorily free) to 'the definitive map of the area'. On 21 September the correspondence was concluded by Mrs Brenda Sayer, who runs the Map Shop in Shrewsbury, pointing out that the larger scale plans were normally used by specialists, and suggesting that 'a pupil preparing for a GCSE project would be better employed producing a map of his own than using a ready-made OS plan. Don't criticise the OS for doing its job properly; take the matter up with the teachers or examining boards who are mistakenly advising the purchase of unsuitable plans.'¹⁶

¹³ *The Architects Journal*, 21 October 1992, quoted in *OS News* 125, Nov/Dec 1992.

¹⁴ Quoted from Steve Hartley, 'Domesday hits R&D!', *OS News* 125, Nov/Dec 1992, p.19.

¹⁵ 'Octet - String quartet with job-sharing imposed'; 'Offerings, Burnt - Barbecued party food'; 'Olympic ideal - Undetectable steroids'; 'Osmosis - Scientific term which arts writers don't understand but use repeatedly in a vain attempt to sound educated'.

¹⁶ *Sheetlines* is indebted to George Jasieniecki for drawing attention to the correspondence in the *Daily Telegraph*. Mr Pelly's letter was reprinted in *OS News* 125 (Nov/Dec 1992), p.16, together with an otherwise unpublished response from OS. 'The decision was taken not to reply directly to the

Quite. Two comments may be made. First, it is evidently not as well known as it ought to be that the 1:25,000 *Pathfinder* is substantially the same as the 1:10,000, as the same drawing was used for both; the only real advantage of the 1:10,000 is the greater number of minor names, though these are of dubious relevance for land-use recording. Whereas it used to be the 1:10,000/1:10,560 family which was healthy and the 1:25,000 sickly, now the position is reversed, and it may be expected that by the end of this decade the chart-paper, litho-printed 1:10,000 sheet will have gone the way of comparable mapping at larger scales, and be replaced by *ad hoc* Superplan-type printouts, which will be even more expensive, but will at least not suffer from the over-generalisation of detail which was enforced by drawing suitably for reduction to 1:25,000. Second, it is only too apparent that at present the OS is in the unhappy position of being neither a public service nor a commercial body, and that too many of its critics seem to assume that it is still the former. It is moving towards the latter, and whilst it might be countered that probably most of these *Telegraph* correspondents support that paper's political direction, and are therefore really stewing in their own juice, nonetheless the 'rot' of Full Cost Recovery can be traced to the direction in 1966 that the OS recover a proportion of map preparation as well as map printing costs, and to the appointment in 1978 of the OS Review Committee. *Observe the dates.*

A little-known 1:10,000 variant

Incidentally, although new 1:10,000 production is still analogue, in 1980-82 a few digital 1:10,000 sheets were produced of part of Cornwall.¹⁷ They are unique amongst 1:10,000 and 1:10,560 mapping in that they are printed in four colours: outline in grey, names in black, water in blue (with blue stipple infill, *mirabile dictu*), and contours in brown. As the extract shows, the detailing is much finer than it is on the ordinary 1:10,000s, indeed much finer than it was on the County Series 1:10,560; your Editor cannot help feeling that a 'Cornish-type' 1:10,000 would be a much better sales proposition, even at £40 a sheet, than is the present inflated 1:25,000 at £32 a sheet. Does anyone agree?

More names

Following his question 'Who was Paul?', in reference to Paul's Hill near Elgin (*Sheetlines* 34, p.26), John J. Smith suggests Paul Sandby, one of the Board of Ordnance draughtsmen who worked on the military survey of Scotland of 1747-55. I think we would all agree that it matches Roy's Hill! Ian Mumford reports a Roy Road in London W1.

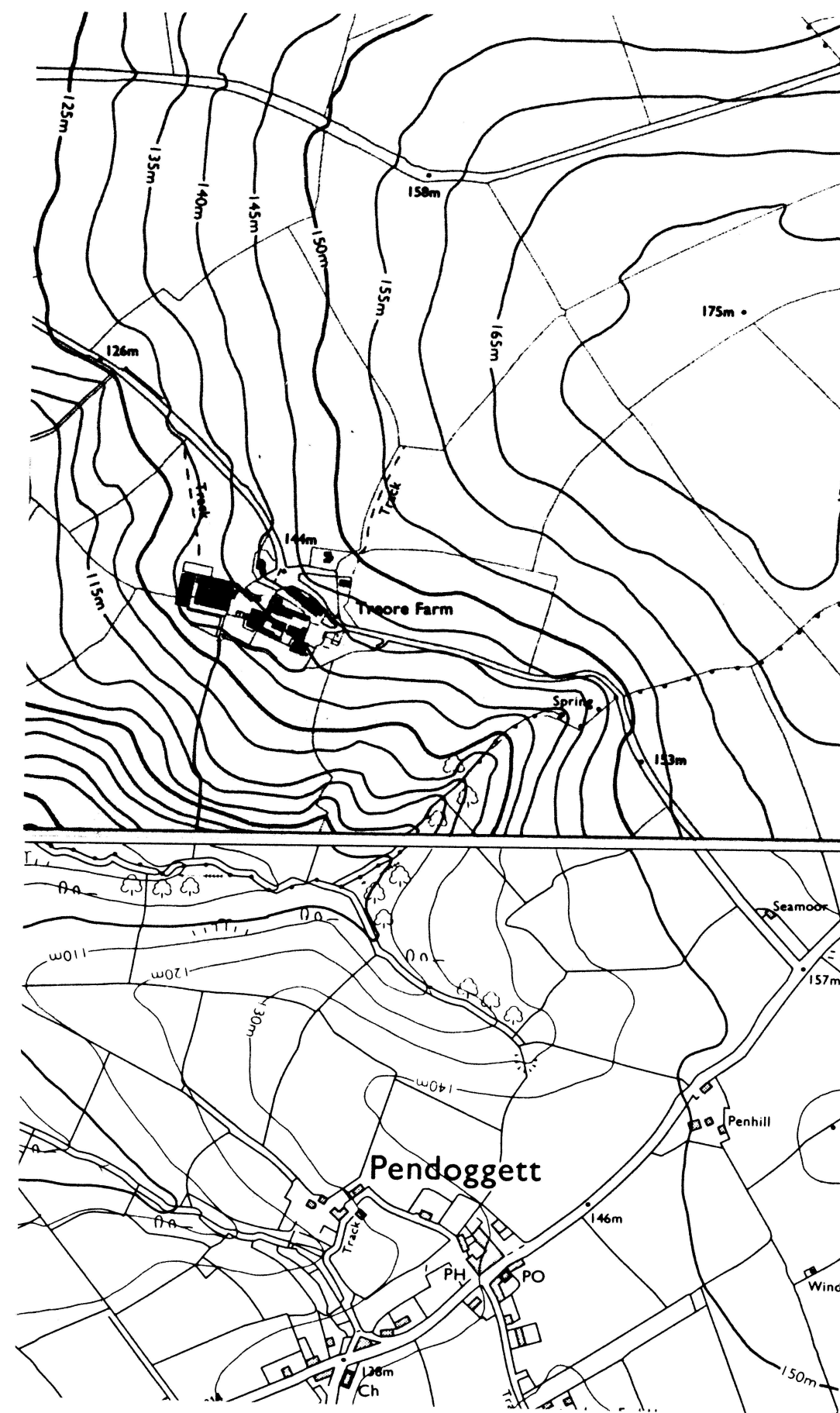
Commenting on the derivation of the name 'Pathfinder' (*ibid.*, p.27), Mr Smith thinks that there was a Pathfinder Squadron in the R.A.F. during the Second World War, whose job was to go in advance of bombers and drop flares on targets. There are also two coach firms, Pathfinder Coaches of Willenhall,¹⁸ and Pathfinder Luxury Coaches of Chadwell Heath.¹⁹ 'Routemaster' is, of course, a type of London bus, (though that hardly seems suitable for a series of maps presumably aimed at long-distance travellers).

Telegraph to avoid giving unnecessary attention to the situation', but Mr Peter Wesley, OS Head of Marketing wrote to Mr Pelly, pointing out that in 1990-1 the 1:10,000 recovered less than half its costs, that this severely limited the amount of revision possible, and that recovering a higher proportion of the costs would enable more frequent revision. Mr Wesley adds that in two or three years it should be possible to produce digitally a derived 1:10,000 from updated 1:1250 and 1:2500 data within 'weeks or months', but 'I have to say that the pricing of this mapping will still largely be targeted more at institutional and professional users.' He says also that both opted-out and 'previously independent' schools are covered by local authority copyright licensing, which permit 'fair dealing' copying.

¹⁷ Sheets SW 61 SE; SX 08, all quarters; SX 09 SE; SX 17, 18, 19, all quarters.

¹⁸ One of the directors is Fred Winkle, which Mr Smith suggests is 'marginally less promotionally unsuitable than Snail, I suppose'.

¹⁹ Your (fairly) northern editor supposes that this proves that southerners need to be pampered rather more.



Extracts from 1:10,000 sheets: (above) SX 08 SW, (1982), produced digitally; (below) SX 07 NW (1983), produced by analogue means. Crown copyright.

The accuracy of Revision Points on early 1:1250 National Grid mapping

George Jasieniecki draws our attention to an erratum slip which is to be found in some copies of the 1955 edition of *A description of Ordnance Survey medium scale maps*. In the main text (p.11) the claim is made that '...Revision Points... are co-ordinated precisely enough for use in surveys at the scale of 1/500'; the slip corrects this to a precision of 1:1250. The 'error', if such it is, is also found in the 1947, 1949 and 1951 editions of this *Description*, and also in the 1954 edition of *A description of the Ordnance Survey large scale plans*. In 1947 Brigadier R.P. Wheeler delivered a paper to the Conference of Commonwealth Survey Officers, which includes the comment 'The R.P. is established to an accuracy of 0.1 metres. At 1/1250 scale the maximum error amounts to 0.08 mm, which is quite unplotable. But the R.P. is also intended to supply standing control for a series of 1/500 plans (should such a scale ever be required) and at this scale the error would be just appreciable (0.02 mm), but is tolerable.'²⁰ It is possible that subsequent experience by non-OS users may have shown that it could be a misleading claim to make in some circumstances.

Public rights of way on 1:25,000 Provisional Edition maps

Bob Parry writes:

Public rights of way derived from the definitive maps prepared by Local Authorities were not generally shown on sheets of the 1:25,000 Provisional Edition. The only exception I had come across until recently was the Wenlock Edge sheet (SO59) which was overprinted with public rights of way 'on behalf of the Salop County Council'.

Recently, however, we 'found' in our map collection,²¹ copies of Sheet TQ 34 with public footpaths overprinted in purple and bridleways in green, (roads used as public paths are shown as a broken green line). In addition, the rights of way are annotated with the definitive rights of way numbers. No marginal explanation is given. The purple and green plates are perfectly registered on the base map, and I would guess they were printed at the OS.

Does any reader know of the origin of this sheet, or of any other OS 1:25,000 Provisional Edition maps with rights of way information?

[David Archer, Roger Hellyer and Richard Oliver report the following: *Gwynedd C.C.*, (information at May 1965): SH 62, 64, 71, 72, 93, SN 69; *Salop C.C.* (information not dated): SO 49, 59; *West Yorks Metropolitan C.C.*, (information at Feb. 1976): SD 92.]

An imminent demise

It is understood that the *Exmoor* One-inch Tourist Map is to be withdrawn from publication, and we are able to disclose that there will be a replacement, of sorts, at a larger scale. *Exmoor* is the last general-use map to retain Seventh Series base material, though such material continues in use on a number of Geological and Soil Survey maps.

Unhappily married

John J. Smith reports a recent second hand acquisition, Outdoor Leisure Map 29, *Isle of Wight*, (edition A1, 1988), in a *Yorkshire Dales Southern Area* (Outdoor Leisure Map 10) cover, complete with its photograph of Malham Tarn. Your editor has a copy of Seventh Series Sheet 146, edition B (1968), in a cover for Sheet 156. Have readers any other examples of such *faux-pas*?

New light on an early decorative cover

Ian Mumford writes:

On 25 October 1913 the Treasury approved a recommendation by the Director General, Ordnance Survey that money rewards be given to OS employees who devise or suggest improvements in methods or material tending to economy and efficiency. In conveying this decision to all staff in a Circular Memorandum of 29 October, Col Close said that he would consider all claims brought to his notice in January each year, though he had no objection to special reports being made in addition at any time. He said that the amounts would as a rule vary

²⁰ *Proceedings*, p.168. I am indebted to Ian O'Brien for assistance here.

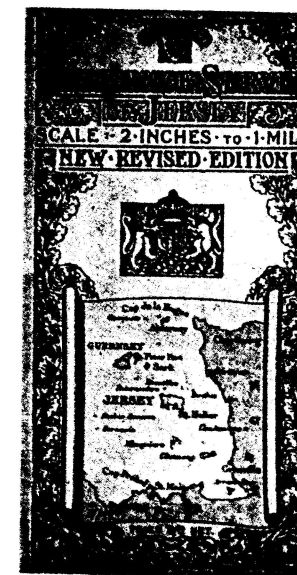
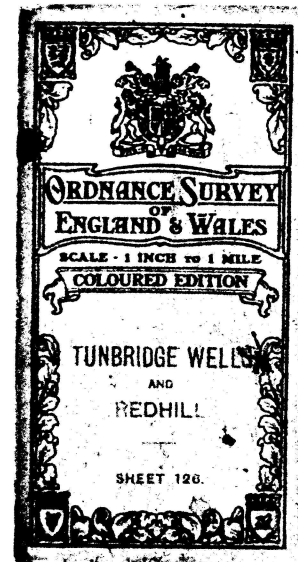
²¹ [i.e., in the Department of Geography, University of Reading.]

from £1 to £10.

Circular C.C. 484 dated 2 February 1914 lists the decisions which gave thirteen lucky men, including two Royal Engineers who only got commendations for as yet untried suggestions, between £1 and £4. The following February there were fourteen awards, including a single award of £5 and two of £4. One of the £4 awards was made to Civil Assistant C.J. Lawrence in O.P. Division for 'Design for 1" & 1/2" map covers'.

In *Map Cover Art*²² Roger Hellyer provides a list of The Covers which includes a design for national map series in a style illustrated as number 9. As he has only found one example of its use on a Third Edition LSS Sheet 126, he tentatively suggests it was an experimental cover from about 1916. If this was Lawrence's suggestion perhaps the reason that it only appeared on one sheet was that the design statement 'Ordnance Survey of England and Wales' was deemed to offend the Scots and the Irish, whose national shields provide two of the four corners of the panel frame.

[The supposed 'Lawrence' cover (H9) was illustrated in *Sheetlines* 13, p.21, and its stylistic similarity to the cover of the Jersey two-inch map of 1914 (H71) remarked upon. Both covers are illustrated here. The Jersey cover is all red on a cream card ground; the 'Lawrence' cover is black on a grey card ground, except for the sheet number and name and price, which have been overprinted in red. To your Editor it looks as though the design was envisaged as including a sketch map, and with sheet number and name in a more ornate style, similar to the Jersey map, but that wartime constraints resulted in the makeshift style represented by the single known specimen. Several questions are begged, nonetheless. (1) Was Lawrence's half-inch design half-inch printed, and if so does it survive somewhere? (2) Is the reference to a half-inch design in fact a clerical confusion with 'two-inch'? (Such things are not unknown!) (3) Was Lawrence responsible for the Jersey cover? (4) When was the Jersey cover brought into use? Was the Jersey map originally issued in plain covers? (*Ed., Sheetlines.*)]



The Bender fold; a popular innovation?

A member has written to ask why, in the 1940s, the concertina fold hitherto favoured by the Ordnance Survey was abandoned in favour of the now ubiquitous Bender method of folding. The answer would appear to be that around 1937 Mr A.R.E. Bender of OS devised this method of folding, and his superiors were so bowled over by the invention that they were prepared to undertake a radical reshaping of one-inch and half-inch sheet lines in order to accommodate it.²³ Our member considers the concertina fold 'handy' and the Bender 'clumsy'; at the time of its introduction the Bender fold was claimed to offer the advantage that it was possible to inspect any part of the map without opening the whole of it, which was only possible with the concertina fold if there was only one horizontal fold; concertina-folded standard one-inch Populars involved

²² John Paddy Browne, *Map Cover Art*, (Southampton, Ordnance Survey, 1991).

²³ See, for example, Public Record Office file OS 1/351, item 59A, and OS 1/96, esp. the minutes of 18 Feb

two such folds, and some special sheets (such as the Half-inch *Greater London* and the One-inch *Peak District*, *Lake District* and *Oban*) four such folds. Our late member, Christopher Wykes, once put the case to your Editor very strongly for the concertina fold, on the grounds that when out walking it was only necessary to have two panels of the map opening, thus lessening the risk of wind catching and snagging the map (one unquestionable drawback of the Bender fold), and Guy Messenger has pointed to the advantage of the concertina fold, particularly when sheets are mounted in sections, when making close comparisons of detail between different printings of the same sheet, as he had to do extensively when preparing his monograph on the Third Edition (Large Sheet Series) map of England and Wales. Having at one time or another tried all the methods of folding employed by the OS both for indoor study, and in cars, on bicycles and on foot, your Editor feels that the Bender fold remains overall the most satisfactory method, and indeed he feels that for front-seat navigation in a car the concertina fold can be potentially hazardous. But what do other readers think?

One-inch Seventh Series covers

Tim Nicholson asks whether the first printings of Seventh Series Sheets 169 and 173 (both January 1960), 8 and 18 (both February 1960) and 178 and 179 (both March 1960) were ever sold in the original 'short' (192 mm tall) version of cover H99? According to the OS annual report for 1959-60, spanning the year to 31 March 1960, a new map folding machine was installed 'towards the end of the period'. It gave rise to the Seventh Series 'long' cover, with a 20 mm increase in depth; but when this wholly supplanted the short cover is unclear. David Archer and Roger Hellyer report long covers for the new fold, dated January 1960, on Sheets 8 and 18 issued the following month; but Richard Oliver notes short covers to fit the old map fold still being printed in February, alongside long covers. Can readers please look into their collections and report any of these sheets (8, 18, 169, 173, 178, 179) in short covers, together with the cover printing dates? This will be helpful to members who are trying to put together collections of Seventh Series maps in the states in which they were first offered to the public.

Richard Oliver observes that it is unclear quite why the 'short' fold, with its accompanying tucking-under of the footnotes, was adopted in the first place. The Seventh Series cover (H99) was designed originally (in 1948-9) to be the same size as the standard New Popular cover (about 204 mm tall); it is possible that, as the design of the Seventh Series developed in 1949-51 and more space was needed at the bottom of the map for footnotes, someone took fright at the increasing depth of the cover and thus the short cover came into being. It is possible that the New Popular cover was the maximum permissible size for some reason, but in that case it is puzzling that covers of ** depth were used for the 1:25,000 Provisional Edition from 1948 onwards and were intended at this time for the nascent Half-inch Second Series. In the event when the first National Grid Half-inch sheet was issued (Sheet 51, in early 1957), it was in a 'short' cover, with the footnotes tucked out of sight, and this style of folding was retained for the two Half-inch sheets (28 and 39) published in 1961. One cannot help feeling that the advent of the new folding machine early in 1960 is not the complete explanation. What is?

Roger Hellyer points out that Seventh Series Sheets 1-4 and 186-190 probably only exist with the spine information in sans-serif.

1:50,000 Landranger map covers

The design of these has been modified recently, and although the general scheme is unchanged, there are several detail changes, mostly improvements. (1) The OS logo is now in a box on a white ground; it is understood that this is to increase its prominence.²⁴ (This change has already been effected elsewhere, e.g. on the Outdoor Leisure Map Covers.) (2) The tourist information symbols have been replaced by small multi-colour stylised depictions of map-users. (3) The reversed-out spine lettering has been enlarged; it is possible that this will answer the protests of such as your editor, who has always regarded the reversed-out style, introduced about eight years ago, as a poor substitute for the formerly plain style. (4) The inside of the covers has been completely redesigned, and now includes a list, with sheet names, of all 204 sheets. The

1936 and 18 May, 19 Aug and 18 Nov 1937.

²⁴ This decision was taken in or before the summer of 1990; no doubt there was the usual quaking before

previous inside had remained unchanged since its introduction in 1984-5 and is now laughably anachronistic, but apparently huge stocks of these covers had been printed, which had to be exhausted before the new design could be introduced. The new design has gone into production, but as yet no specimens were to be seen at the National Map Centre (Cook Hammond and Kell) in London on 10 December.²⁵

Early air photographs

Ian Mumford writes:

From his review article 'As they are and as they perhaps might be: some recent maps for the ordinary public', in *Sheetlines* 34, which is a rollicking good read enthroned on a thick bed of footnotes, it may appear a bit niggardly to seize on just one of the 72 such notes for comment, but here goes! The text makes an unsubstantiated statement that the first photograph taken from an aeroplane was in 1909, to which footnote 19 is a pretty wild embellishment. The first aerial photograph is generally agreed to be that taken by Nadar over Paris in 1858, from a balloon. Balloons, tethered and free, as well as kites, were on many occasions, in various parts of the world, used as a camera platform from then on until the aeroplane was invented. A principal interest for many decades in the early development of aerial photography was the elimination of tilt. Since verticality is relative, it would be fair to claim that if the camera is intentionally pointed downwards from any aerial platform the result is a vertical air photograph. Colonel Laussedat in his great work *Recherches sur les Instruments, les Methodes et le Dessin Topographique*,²⁶ reproduces a good vertical photograph of the Ile Saint Louis in Paris which he had taken from a balloon on 19 June 1885. Laussedat had got his first glass plate camera into the air in 1858 suspended from kites. Difficulty in obtaining area coverage and eventually stereo cover limited his early map making to terrestrial photogrammetry.

Verticality in cameras suspended from balloons was the subject of an English Patent in 1877 by W.B. Woodbury. Scheimpflug in Austria in 1900 found a solution to the problem of achieving areal coverage from the air. By 1914 the use of air photos in map making in the earliest days of the Great War saw the beginning of a new era in map making. In the 1920s the War Office sponsored the Air Survey Committee which nurtured the revolutionary inventions of H.G. Fourcade, although the Ordnance Survey had little requirement for the products of basic air survey in this country. According to Col Roy M. Stanley II, USAF, in *WWII Photo Intelligence*,²⁷ 'a 1908 shot taken near Le Mans, France, is probably the best candidate for the first aerial photograph from an aircraft. Claims are also made for photos taken at Centocelle near Rome in 1909 and a 1910 picture in England. The Centocelle story is at least demonstrable as out of the running. The photos (motion pictures) were of Wilbur Wright flying, not taken from his airplane.'

[Richard Oliver is delighted to be corrected!]

Improved research facilities in the Hydrographic Department, Taunton

Some readers will be aware that the Hydrographic Office of the Ministry of Defence holds a considerable collection of manuscript material, affording far more information than appeared on the published Admiralty charts. Although this material has always been accessible to serious researchers, facilities for consultation have recently been improved. 'Hydro's' new Dalrymple Block, opened on 4 November 1992, includes a new visitor's reading room. Access to the collection is available on written application, which must be addressed to: The Curator, Hydrographic Data Centre, Hydrographic Office, Taunton, TA1 2DN, (telephone 0823-337900, ext. 3469; fax 0823-284077).

Obituary

We are sorry to have to record the death, on 26 November, of David Rutt, who only joined the Society recently. Mr Rutt's son says that his father 'greatly enjoyed' his membership, and has joined in his father's stead.

entering the holy of holies!!

²⁵ *Sheetlines* is indebted to Tim and Elaine Owen and John Paddy Browne for information on some points here.

Trigonometrical miscellany

Concrete monstrosities on hilltops: no end in sight

Readers will be only too well aware of the controversy about the future of those OS triangulation pillars which have been rendered redundant by the advent of GPS (Global Positioning System). OS have now decided to retain 1,269 of its 6,173 pillars, viz all 271 geodetic (first order) pillars, 70 second order pillars which have been incorporated into the GPS network, and, for the short term, 928 third and fourth order pillars, to facilitate large scale map revision. The remaining 4,904 pillars are to be offered for 'adoption' by individuals or groups: OS will shortly be issuing a booklet listing the available pillars.

Alastair Macdonald, OS Director of Surveys and Production,²⁸ has said 'There is obviously a great deal of affection for these constructions, some of which are really concrete monstrosities', but it is of interest that when, in the autumn of 1991, the Ramblers Association invited its members to comment on the future of the redundant pillars, only about 40 (representing 0.06 per cent of the membership) did so, and not all of those favoured retention.²⁹

Of pillars and predecessors

The first OS pillar to be constructed, in 1935, was at Martinsell Hill, south of Marlborough, Wiltshire (SU 178638); the first pillar to be observed from was that near Cold Ashby, in Northamptonshire (SP 644766), on 18 April 1936. 'The forerunner of the modern trig. pillar (which evolved because of a requirement for a solid tripod on which to stand the theodolite used in this hilltop measuring of angles and distances) was a dumpy, cylindrical version, the first of which was constructed on the Lossiemouth base in 1912.'³⁰

Before that, trig. stations were often marked by buried stones, or sometimes by poles erected on church towers, chimneys, etc., and these stones and other triangulation stations are recorded in the 'Station Description' books now in Public Record Office class OS 2. The following is a typical example:

'Old Den, Kilnsea... This [trig.] stands on an old road that extends from the Bank leading to Spurn Head out in the River Humber... it is N. of where small ships anchor at called Purgatory and on the line between Spurn Head lesser light & West chimney of Mr Clublaws House of Kilnsea. Mr Watson light keeper can show the [trig.]'³¹

The station descriptions are usually supplemented by sketch-diagrams showing the position of stations within fields, etc, and sometimes by sketches of buildings; there might perhaps be a local history application for this information.

Trigonometrical summits and real summits

Following the reference to trig. operations on Cadair Idris in the recent popular history of the OS,³² John Wilks draws attention to a passage in the Diary of Francis Kilvert, who visited the mountain on 13 June 1871, accompanied by 'old Pugh', a mountain guide.

Old Pugh informed Kilvert that 'This is the highest point on Cadair Idris, not that' looking with contempt at the great conical pile of stones built on the peak by the sappers and miners during the Ordnance Survey. 'The Captain of the Survey Company had his tent pitched on top of Cadair Idris for 3 summer months and never left the place. He had 18 men to wait upon him. And how many clear views do you think he got in that time?' Kilvert hazarded 'Twelve'. 'Nine' replied the guide.

This would presumably have been in the early 1840s. Your editor recalls that similar

²⁶ Tome II, Premiere partie, p.82 (Paris, 1901).

²⁷ Scribner, 1981, p.21.

²⁸ Mr Macdonald has since retired.

²⁹ OS News 125, Nov/Dec 1992, p.10.

³⁰ *Ibid.*

³¹ PRO OS 2/267, p.461: described December, 1842.

difficulties were encountered on Snowdon in the summer of 1842, where the Royal Engineer officer in charge only saw the coast of Ireland four times in two months.³³ One wonders if the cairn on Cadair Idris was deliberately built away from the summit in order to facilitate sightings in certain directions. The Trig. pillars introduced in 1935 are by no means always on summits, and on 1:25,000 and smaller scale maps this is not always apparent. To take a parochial instance: the height of the trig. pillar on Hamilton Hill, Market Rasen, Lincolnshire (TF 12229015) is 187 feet, whereas the summit of the hill (TF 12309000) is 205 feet. Both heights were given on 1:25,000 Provisional Edition Sheet TF 19, edition B, but only the trig. height has appeared on smaller-scale maps published since 1954. No doubt the pillar postdated the Forestry Commission plantations on the hill-top, but it probably antedated the fire lookout tower, (demolished in 1976), which would have been an excellent 'up-station', conspicuous as it was for miles around.

REVIEW

John Riddall and John Trevelyan, *Rights of Way, a guide to law and practice*, London, Commons, Open Spaces and Footpaths Preservation Society and Ramblers Association, second edition, 1992. ISBN 0-900613-73-4. pp. 528, 4 illus., 23cm, paperback, £12:00, (£14:00 by post from Ramblers Association, 1/5 Wandsworth Road, London, SW8 2XX; hardback also available, £18:00, plus £2:50 postage).

'The representation on this map of a road, track or footpath is no evidence of the existence of a right of way' has appeared on Ordnance Survey maps since about 1889. In 1960 the OS published its first map (1:63,360 Seventh Series Sheet 180) showing public rights of way, and thus with, perforce, a modification of this long-standing disclaimer, which still appears on large-scale maps, (even Superplans). Since then public rights of way have spread across the face of the 1:25,000 and 1:50,000 maps of England and Wales; they have not spread similarly in Scotland as that country has no Definitive Maps. Definitive maps, Footpaths, Bridleways, Roads used as Public Paths and Byways Open to All Traffic are explained fully here, as is the law relating to what one can or cannot do on or to a public right of way. As such, this book can be recommended to anyone who has to do with rights of way, either cartographically or on the ground.

The first edition of this book appeared in 1983; this second edition takes account of statute law as at 1 April 1991, but there are a few later references to case law. Two-fifths of the book is taken up with direct quotations from relevant legislation, which are useful to have, but which mean that most purchasers will be paying for about 280 rather than 520 pages. As one would expect from its publishers, it is of greater value to those concerned with opening up than with stopping up rights of way; and though the short sections on maps are generally sound, it has been pointed out to me that, *pace* page 112, the title maps accompanied the schedules, and not the other way round!

Richard Oliver

³² Tim Owen and Elaine Pilbeam, *Ordnance Survey, map makers to Britain since 1791*, (Southampton, Ordnance Survey and London, HMSO, 1991), £14:95, hardback, ISBN 0-11-701507-5: good value for money.

³³ See Harry Margary, *The Old Series Ordnance Survey*, Vol. VI, Wales, (Llynpne, Harry Margary, 1992), pp.vii-viii, citing J.G.Kohl, *England and Wales*, 1844, reprinted London, Frank Cass, 1968, pp.68-9.

A carto-bibliography of the 1801 map of Kent

In the autumn of 1991 the Charles Close Society published two booklets by Guy Messenger, of carto-bibliographies of the Ordnance Survey one-inch *Old Series* maps of south-east and south-west England.¹ Accounts of the earlier states of these maps had appeared in the first two volumes of *Old Series* facsimiles published by Harry Margary,² and Volume I additionally included a facsimile and carto-bibliography of the one-inch map of Kent, based on Ordnance surveys performed under the direction of Captain William Mudge, and published by William Faden in 1801.³ How far the Mudge/Faden map is 'the first Ordnance Survey map' is a matter for debate, and there are various opinions, but its close relationship to the first official published topographical map of England and Wales is indisputable. On advice from the present writer, the Mudge/Faden map was omitted from Guy Messenger's extended carto-bibliographies,⁴ but it has since been represented that this was a mistake, and accordingly the carto-bibliography by Yolande Hodson included in Volume I of the Margary facsimile is included here. The text has been revised and edited to assimilate it to some extent to the style of the later *Old Series* carto-bibliographies, but no additional states or changes of detail have been added. Any additions, corrections or comments may be sent to me. (Address as editor of *Sheetlines*.)

Richard Oliver

Abbreviations

BL	British Library	LUL	London University Library
BOL	Bodleian Library	NLS	National Library of Scotland
GL	Guildhall Library	PC	Private Collection
HMF	Harry Margary Facsimile	RGS	Royal Geographical Society

The map of Kent was divided into four quarters, each printed from its own copper plate. Each sheet measures 85 x 57.5 cm (about 33.4 x 22.6 inches) between the neat lines. Designed to be mounted as a single map, each sheet has a graduated border on only two sides. The imprint 'Published by W. Faden Charing Cross Jan. 1st. 1801.' is engraved along the eastern margins of the north-west and south-west sheets, and along the western margins of the north-east and south-east sheets. The title of the map appears in the south west sheet and reads 'General Survey of England and Wales. An entirely new & accurate Survey of the County of Kent, With Part of the County of Essex, Done by the Surveying Draftsmen of His Majesty's Honourable Board of Ordnance, on the basis of the Trigonometrical Survey carried on by their Orders under the direction of Capt. W. Mudge of the Royal Artillery.' The dedication to 'Charles Marquis Cornwallis and the rest the Principal Officers of His Majesty's Ordnance' is engraved on the south-east sheet.

North-west sheet

State 1

(a) Central stroke of 'e' of 'Aglintine Fm.' (0.5 mile NE of Farningham) is faint.

¹ Guy Messenger, *The sheet histories of the Ordnance Survey one-inch Old Series maps of Essex and Kent: a cartobibliographic account*, (London, Charles Close Society, 1991); Guy Messenger, *The sheet histories of the Ordnance Survey one-inch Old Series maps of Devon and Cornwall: a cartobibliographic account*, (London, Charles Close Society, 1991).

² Harry Margary, *The Old Series Ordnance Survey Maps*, with an introduction by J.B.Harley and Yolande O'Donoghue, Vol. I, *Kent, Essex, E.Sussex and S.Suffolk*, (Lympne Castle, Harry Margary, 1975); Harry Margary, *The Old Series Ordnance Survey Maps*, with an introduction by J.B.Harley and Yolande O'Donoghue, Vol. II, *Devon, Cornwall and West Somerset*, (Lympne Castle, Harry Margary, 1977).

³ Volume I of the Margary facsimile is now out of print, but the Mudge/Faden map of Kent has been reissued in *The County of Kent in 1801*, (Lympne Castle, Harry Margary, 1990, ISBN 0 903541 42 4).

⁴ These included material from Volumes I and II of the Margary facsimiles; the Society is grateful to Mr Margary for permission to use this material.

(b) 'in' of 'Chapel in Ruins' (3 miles SE of Farningham) is faint.

(c) '23' mile distance north of Sevenoaks (immediately west of 'Vine') is very faint.

BL K.Top.XVI.22; BL Maps 148.e.27; BL Maps 3055 (5); BL Maps 3055 (14); BL Maps 8.c.38; BOL Gough Maps Kent 48 [= HMF]; RGS; PC.

State 2

The above features have been filled in and are solid.

PC

State 3

(a) 'Aglintine Fm.' becomes 'Eglington Fm.'

(b) Names 'Folly Ho.' and 'I. of Dog Ho.' added on Isle of Dogs.

(c) Names 'Pell St.' and 'M. Pleasant' added S. of Gravesend.

PC

State 4

Ornament added around woodland names.

BL Maps 3055 (55); BL G.3061; GL; LUL; NLS; PC

North-east sheet

State 1

Mileages on Canterbury-Deal road ('57', etc) are in skeletal form.

BL K.Top.XVI.22; BL Maps 148.e.27; BL Maps 3055 (5); BL Maps 3055 (14); BL Maps 8.c.38; BOL Gough Maps Kent 48 [= HMF]; RGS; PC (two copies).

State 2

(a) Mileages on Canterbury-Deal Road deleted.

(b) Mileages added on Canterbury-Dover road.

BL Maps 3055 (55); BL G.3061; GL; LUL; NLS; PC (two copies).

South-west sheet

State 1

'Scale of Inches' omitted from scale-bar.

BL Maps 3055 (5); BL Maps 8.c.38.

State 2

'Scale of Inches' added above scale-bar.

BL K.Top.XVI.22; BL Maps 148.e.27; BL Maps 3055 (14); BOL Gough Maps Kent 48 [= HMF]; RGS; PC.

State 3

Name 'Coller Street' S. of Benhover Street is deleted. (In earlier states two settlements called 'Coller Street' appear on the road south of Yalding; it is the northern settlement which has been deleted in this state.)

PC (two copies)

State 4

Ornament and stipple added around woodland names, e.g. at Ropers Wood, in SE part of map in Sussex.

BL Maps 3055 (55); BL G.3061; GL; LUL; NLS; PC.

South-east sheet

State 1

The hydrography of the Romney, Walling and Denge Marsh area is crude, and lacks the features added in State 2.

BL K.Top.XVI.22; BL Maps 148.e.27; BL Maps 3055 (5); BL Maps 3055 (14); BL Maps 8.c.38; RGS; PC (two copies)

State 2

(a) There are several changes in the hydrography of the marsh areas, e.g. (i) river added from 'Jews Gut' to 'Scotney Court' (about 2 miles WSW of Lydd); (ii) drainage ditches added in area between 'Camber' and 'Seeds Gate' (about 3 miles ESE of Rye); (iii) dyke S of 'Knock Ho' (SE of Stone) re-engraved, and crosses river to E.

(b) Course of some roads slightly modified; some fields formerly blank are now stippled (e.g. S. of 'Mill Bank, about 3 miles ENE of New Romney) and *vice versa*.

BOL Gough Maps Kent 48 [= HMF]; LUL; PC.

State 3

(a) Royal Military Canal [completed 1809] added.

(b) North part of Hythe re-engraved to incorporate built-up area.

(c) Roads immediately W. of Hythe re-engraved; upper turnpike road deleted and mile distance '26' left isolated.

(d) Addition of 'Stutfield Cas.' and symbol S. of Lympne.

(e) Road NE of Appledore re-engraved.

(f) 'High Knock Channel' added S. of Appledore.

(g) 'White Kemp Sluice' added NW of East Guldeford.

(h) Topographical detail in Sussex W. of Rye added: hills hachured, 'River Rother' and 'Brede River' named, villages 'Wickham' and 'Ashes' named, 'Pett Level' appears.

(i) Additional buildings added along shore S. of Hythe.

(j) Coastline extruded into southern margin to show continuation of Royal Military Canal S. of Winchelsea.

BL Maps 3055 (55); BL G.4061; GL; NLS; PC.



Apropos of nothing very much your Editor has disinterred the illustration above, which is from Memoirs of the Geological Survey of Great Britain, Vol. I, (London, HMSO/Longman, 1846), p.248. The Geological Survey had begun in 1832-5, (according to how one interprets its informal and formal beginnings), as a part of the Ordnance Survey, but in 1845 it was transferred to the superintendence of the Office of Woods and Forests. The most probable reason for the inclusion of the two figures in this illustration was to give it scale.