



# *Sheetlines*

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

This edition of *Sheetlines* was published in 1995 and the articles may have been superseded by later research.

Please check the index at  
<http://www.charlesclosesociety.org/sheetlinesindex>  
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Published by  
THE CHARLES CLOSE SOCIETY  
for the Study of Ordnance Survey Maps  
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The Charles Close Society was founded in 1980 to bring together all those with an interest in the maps and history of the Ordnance Survey of Great Britain and its counterparts in the island of Ireland. The Society takes its name from Colonel Sir Charles Arden-Close, OS Director General from 1911 to 1922, and initiator of many of the maps now sought after by collectors.

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



# SHEETLINES

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**1995**

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**Future Meetings**  
**Charles Close Society, Fourteenth Annual General Meeting**  
**Nuneaton, Saturday, 13 May, 1995**

The Annual General Meeting of the Charles Close Society will be held at the Town Hall, Coton Road, Nuneaton. The meeting will commence at 1200, in the Council Chamber, but will be preceded by a talk at 1100 by Richard Oliver "Getting there in the end: the National Grid and the New Popular Edition". A copy of the agenda, the full programme for the day, and map showing the Town Hall location are enclosed with this copy of *Sheetlines*. Please note the need to inform the Honorary Secretary of your requirements for lunch and/or table requirements for the afternoon Map Market.

**Midlands Evening Meeting, Branston, Wednesday, 7th June, 1995**

A meeting will be held at the St Saviour's Church Meeting Hsll, Branston, near Burton-on-Trent, on Wednesday, 7th June. The directions to the hall were given in the last issue of *Sheetlines*. Further details of the evening's programme can be obtained from Lez Watson, 54, King Street, Burton-on-Trent, DE14 3AF (tel: 01283 541303) nearer the date.

**Visit to the Collections and the House of the Royal Geographic Society  
and the Science Museum, London, Friday, 7 July, 1995**

The visit will commence at 1100 at the RGS, 1, Kensington Gore, London, SW7, and last until about 1300. Lunch can be arranged at the RGS. There will follow a visit to the Science Museum, Exhibition Road (approx 2 furlongs from the RGS) from 1430 until 1530 for a tour of the scientific (including surveying and drawing) instruments. Please contact the Hon. Secretary if you wish to attend.

**Map Cleaning and Repair Workshop**  
**Congleton, Saturday, 16 September, 1995**

As a follow up to the article in *Sheetlines* 40 on *Cleaning, Restoration and Preservation of Maps*, Gerry Jarvis and David Parsons have arranged a Map Cleaning and Repair Workshop on 16th September at Westlands High School, Holmes Chapel Road Congleton. The workshop will start at 1000 for 1030 and will cost £20 for each participant. (Payment to be made by 31st July 1995)

The workshop will be run by Graham Moss of Papersafe, of Oldham. Starting with a short talk on paper (its structure, composition, etc.), there will be demonstrations of what can, and possibly can't, be done with paper, followed by the practical sessions which Graham will supervise. Those attending will be asked to bring to the workshop examples of maps and documents which they wish to clean or repair.

The cost of the workshop will include a package of cleaning and repair materials to be used, buffet lunch, and the day's refreshments. Transport can be arranged from/to Macclesfield and Crewe stations.

The practical nature of the workshop will restrict the number to 10. Early booking is advisable to David Parsons, 1, Kent Drive, Congleton, CW12 1SD; Tel: 01260 271596; Fax: 01260 270875; E-mail: parsons@cs.man.ac.uk

*(It is expected that the workshop will be well subscribed; any member of the CCS who would like to attend such a workshop but is unable to do so on 16th September, should let David know so that the demand for a further workshop can be determined, as well as where.)*

# Sheetlines

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*Sheetlines 42*

*April, 1995*

## Editorial

This year's Annual General Meeting will be held at Nuneaton, pretty well at the centre of England. The reason for the selection of Nuneaton was because it is also the centre of the membership, and it is hoped that a large attendance will thereby be encouraged. By coincidence, I recently came across a copy of a First World War Guide Book, probably published about 1917, in which all the virtues of the town are extolled. One importance it claimed was to have one of the first provincial airfields.

Looking at such towns now, it is easy to be quite unaware of the industries that once flourished, and, of course it is in this area that large scale Ordnance Survey maps can contribute to industrial archaeology and historical research. In that vein, it is pleasing to include in this issue an article by Harry Townley on his use of the Lancashire Six-inch survey (first editions and their revisions) in his research for a book on the Industrial Railways of South Lancashire. Also in this issue is an article by Gdfan Morris who joined the Ordnance Survey in 1937, and served with it through the war. Some fascinating reminiscences of the initial training given to new recruits.

Neither Mr Townley nor Mr Morris are members of the Charles Close Society, but they have made a valuable contribution to the study of the Ordnance Survey and the use of its maps. Such articles are always welcome, and if members have friends or colleagues who would be willing to write similar articles, please encourage them to do so!

And that in turn raises another point. During the course of historical research, people, whether members of the society or not, often come across reference to the Ordnance Survey or its activities (often small and sometimes seemingly insignificant), and perhaps it would be a useful collection of accessible information if such references could be assembled onto a data base. What would be required is a member willing to run the data base, and a discipline amongst members to report any references. A passing thought.

## HELEN WALLIS, O.B.E. 1924-1995

It is with very great sadness that I have to report that another member of the Charles Close Society has died. Dr Helen Wallis, Superintendent of the Map Room of the British Museum (later Map Librarian of the British Library) from 1967 to 1986, was a great friend of this Society, to which she gave much useful support in its early days.

I first met Helen in 1971, when I joined the Map Room of the British Museum. Her enthusiasm for all things cartographic was highly infectious, and she had a gift for encouraging her staff to develop their own interests. Thus, when

she realised that I was able to write about two characters in Japanese, I was given the task of cataloguing the Japanese material — helped by staff from the Department of Oriental Antiquities, from whom I learned much. They, in their turn, also had their horizons broadened when in 1974 Helen hit on the idea of presenting an exhibition of Chinese and Japanese maps. Her knowledge of Jesuit cartography in China was extensive, and to set it in context she enlisted the aid of specialists in the Department of Oriental Manuscripts and Printed Books, who were to discover cartographic

treasures in their own collections which had not previously been exhibited. In this way the Map Room became a small, but significant hub of activity in the British Museum. Helen clearly regarded maps as the passport to many spheres of activity, and, by crossing the boundaries of the subject divides in the Museum, she brought a rich mixture of expertise both to other departments and to the Map Room.

This was especially apparent in the exhibitions which she mounted herself, or actively supported. In particular, her management of the exhibition on the American War of Independence in 1975 involved the contributions of several departments, not just in the British Museum, and the new British Library, but also of outside museums and collections. It was a major achievement which was crowned by her successful negotiations to have the exhibition shown both in Lexington and then in Hamburg in the following year. In these days of sophisticated museum techniques, it is hard to realise that only twenty years ago such exhibitions were pioneering the way in modern museum display methods. Those of us who took part found that our academic skills ranked low in comparison with the ability to understand electrics, to wield a drill, or to measure light levels, for example.

If exhibitions were a vehicle for publicising the riches of the Map Library, Helen herself was a remarkable medium through which the world came to the Map Library in the wake of her visits to collections and conferences abroad. She was never still, except, perhaps, when sitting at the back of the reading room, surrounded by piles of books and papers and slides, preparing yet another lecture on maps for a local history group at the other end of the country. Her sometimes seemingly hesitant way of speaking belied a razor sharp mind which was revealed at its best when she made a radio broadcast. On these occasions, her fluency of expression was a model which few could emulate in similar circumstances.

Helen was committed to furthering the interests and experience of those who worked in the Map Library. Her membership of diverse committees and learned societies brought a whole range of interesting opportunities to her junior staff, who were encouraged to represent the Map

Library in the decision-making processes of other organisations. For example, one of the first groups which I became involved with, as a result of this policy, was the Place-Names sub-committee of the British Standards Institution, to which I undoubtedly contributed little, but from which I learned a great deal. She would never hesitate to volunteer one of her staff for the position of secretary to a committee, if she saw that it would further their career experience.

All this was conducted side by side with the domestic work of the Map Library, which was the only map collection in the country to have a published catalogue. Cataloguing, exhibition, and committee work had to be dovetailed to meet the printer's deadline. Cataloguing may have been the bread and butter work of the Map Library, but even in this, Helen ensured that the national collection led the way. Courses in map librarianship were held at ASLIB in which Map Library staff took part –Helen even enlisted the services of the more erudite 'students' from the reading room for this — a typical example of her ability to use the best human resources at her disposal. In turn, the Map Library was host to library students who needed practical experience of non-book materials, and produced many cartographic converts in the process. When the Anglo-American Cataloguing Rules came to be revised (AACR2) in the late 1970s, Map Library staff were given the opportunity by Helen to participate, as fully as British Library policy allowed, in shaping the revised rules for cartographic materials.

In 1980, when the Charles Close Society for the Study of Ordnance Survey maps was founded, it seemed that the obvious initial base for such a small group would be the Map Library — home of the premier national collection of copyright Ordnance Survey material. Helen's support for this venture was whole-hearted, and she used her influence to gain permission for the British Library to be used as its postal address. Becoming one of the first members of the Society, she regularly attended its annual general meetings, and welcomed its members on visits to the Map Library. In this way, many people from different walks of life, with an interest in maps in common, have made their way to the British Museum

building. As a result, the non-professional map community in this country has burgeoned because of Helen's encouragement. Her great achievement in this respect was that the Map Library, an august national academic institution, sometimes resembled a friendly clubhouse where cartographic conversation ranged from prehistory to the present — a suitable reflection of Helen's own all-embracing interest in the subject.

Helen, who was educated at St. Paul's School for Girls, and St. Hugh's, Oxford, and was a leading lady in the cartographic community; she had been the first woman President of the British Cartographic Society, and received its Gold Medal. She became an Honorary Vice-President of the Royal Geographical Society, and was the recipient of numerous awards. Yet, for all her academic distinctions, it is for the warmth of her personal friendship that most of us will remember

her. Amidst the press of professional life she was never too busy to ask, for example, after ailing members of the family. When my four-day old son needed life-saving surgery, she came straight to the Westminster Children's Hospital, where her visit brought such calm comfort and the surprising discovery that the doctor treating Matthew was none other than her nephew — a fact of which she was quite unaware. Helen was an entertaining companion with whom to attend conferences or supper parties, where her fund of witty anecdotes would keep the party highly amused. She was always interested in the well-being of others, and I can do no better, in giving an example of her selflessness, than to recount how, only a couple of weeks before her death, she rang me to ask if I was recovering from my own illness. The recollection of such a friend will always bring a smile of grateful remembrance.

*Yolande Hodson*

“The Globe my World”

tributes to

**Dr Helen Wallis, OBE, FSA**

(1924 – 1995)

at the Royal Geographical Society, London

on Tuesday, 9 May 1995 at 4.00 p.m.

Any members who would like to attend this tribute please write for a ticket (enclosing a stamped addressed envelope, if in the UK) to Tony Campbell, Map Library, The British Library, Great Russell Street, London, WC1B 3DG

It is intended to produce a volume of tributes for distribution to those attending.

**Marginalia**

*‘Solution’ to the editorial map montage for Christmas 1994*

The montage was made from seven maps; the places and on which maps (reading from bottom right, clockwise) are:

St Nicholas	Quarter-inch, Second Edition, Sheet 5 (LSS), 4m S of Strumble Head
Mistletoe Oak	One-inch, Popular Edition, Sheet 80, 2m E of Lingen, ½m S of Ongar Street
Holly Bush	One-inch Old Series, Sheet LXXIII, 1½m SE of Bangor
Turkey Island	1:25,000, Provisional edition, Sheet SU51*, 1.2 m N of Wickham (the base map)
Christmas Pie	One-inch, Popular Edition, Sheet 124, ¼m SW of Warnborough Station
Winter Hill	Motoring Atlas of Great Britain, 1988 edition, p53, 5m NW of Bolton
New Year Field	Half-inch, Third Edition, Scotland Sheet 27, ½E of Livingston Station

\* This map has no water courses marked on it, i.e. no blue plate print.

### *Nobbut Topper Hill*

Richard Oliver draws attention to an anecdote which appeared in *OS News* a little while ago:

“Some time in the nineteenth century an Ordnance Surveyor was collecting names in one of the more remote parts of Yorkshire, and asked a passing local what the name of a particular hill was. ‘Ee, that’s nobbut topper hill’ said the local, meaning ‘That is nothing but the top of the hill: it has no name.’ The surveyor assumed that the

feature was called Nobbut Topper Hill, he duly recorded it thus in his Names Book and the name duly appeared on large-scale OS maps. It was only removed in the course of the revision for the National Grid mapping in the 1960s and 1970s, when, presumably, another local pointed out the mistake.”

Does any reader know whether there is any truth in this? If so, can they say where Nobbut Topper Hill is to be found?

### *Gremlins on the Humber shore (on paper, anyway)*

Richard Oliver has taken me to task for suggesting, in the caption to the two extracts from One-inch New Series Sheet 90, illustrated on pp 54-5 of *Sheetlines* 41, that the depiction of inns, smithies, and post and telegraph offices was as ‘tourist information’. The first two may have been to aid civil travellers, but Richard suspects that the inclusion of letter boxes and post and telegraph offices was at military behest. It is noteworthy that whereas in the 1880s Post Offices were shown on newly-published One-inch maps in a desultory sort of way, none were shown on newly-published sheets of the early 1890s, at which time inns and smithies were often shown in isolated areas. The revised New

Series which was published in 1895-99 included systematic depiction of smithies, inns and postal facilities. Although the information was no doubt of use to civilians, he also suspects that the inclusion of post and telegraph information was originally for military reasons, as certainly was the distinction of churches with towers and spires and single- and multiple-track railways, and the revised road classification.

Your editor must admit that the ‘naughty’ thought of ‘Tourist Information’ arose from the article by Steve Simpson on the 1:25,000 Series, where the emphasis on the Outdoor Leisure and Explorer maps is on Tourist Information.

### *Bicentenary of the Hydrographic Office*

Mary Clapinson, Keeper of Western Manuscripts at the Bodleian Library, Oxford, has written to tell the Society that from 20th February until 20th May, the Library will be contributing to the celebrations of the Hydrographic Office’s

bicentenary with an exhibition titled “All at Sea”. The refurbishment of the Library’s exhibition room in the Old Library has, for the first time, provided cases suitable for the display of maps and charts.

### *Request for maps for the Arnhem Museum, Fulbeck Hall*

I have received a letter from Mrs Fry who has established the Arnhem Museum at Fulbeck Hall, Grantham. She wishes to thank members of the Charles Close Society for their response to her request in *Sheetlines* 41 for a number of specific maps to illustrate the First Airbourne Division’s participation in the Battle of Arnhem.

Unfortunately, she has not yet been able to locate any of the GSGS 4427 series – Holland 1:25,000, nor GSGS 4072 Europe (Air) (1:500,000) sheet NE48/2 *Paris*, and GSGS 2541 Holland (1:100,000) sheet 2 *Utrecht*. Similar scales of similar areas would be acceptable providing they are pre-September 1944.

:

### *How accurate is is Ordnance Survey Mapping Information*

*Sheetlines* 40 (pp33–34), reported an accident which had occurred to a climber on Aonach Mor, in the Ben Nevis range, when using the 1:25,000 Outdoor Leisure Map *Mountainmaster of Ben Nevis* in heavy snow and mist. In essence, the climber, leading a small group of friends, had taken his position from a ski tow which was marked on the map; unfortunately the position of the ski tow on the map was marked in the wrong position. “Ski-Tows on the *Mountainmaster* Map were shown in blue to indicate that they were provided as tourist information supplied by third parties and not surveyed by Ordnance Survey. Surveyed detail is in black.”

I can now report that the OS took immediate action to ensure that such erroneous information was not printed on its maps. The OS issued instructions that:

“The current method of showing ski-ing related detail shown as a Tourist feature (i.e. blue detail and blue uppercase type) was to cease forthwith. The detail will only be replaced after it had been confirmed that it had been surveyed.

The new depiction will be in BLACK with the overhead detail being shown by a pecked line — 2mm bar, 1mm space in line gauge 30mm. Terminal points will still be shown by dots — line gauge 1.00mm.

The type, e.g. ‘Ski Tow’, ‘Chair Lift’, ‘Gondola’, will be shown in normal upper/lower case and will have a blue background tint applied to it.”

Maps published since the features were surveyed, i.e. 1:10,000 and Landranger have shown the features in their correct position.

### *Distribution of Sheetlines:*

The membership of The Charles Close Society is nearly 350 members which means that there are nearly 350 copies of *Sheetlines*, together with enclosures, to be despatched three times a year. It is now unreasonable to expect that only one member of the Society does it. A small team

of four or five would do the task much quicker (less than one evening); any members who live in the St Albans area and would be willing to help please contact Bill Batchelor, 32 Evans Grove, St Albans, AL4 9PJ (tel: 01727 839994), or have a word with him at the AGM.

### *Register of Research Interests*

It was proposed at the 1994 Annual General Meeting that a Register of Research Interests be set up by the Society so that members with common interests could be aware of others’ activities. Hopefully, this could lead to mutual co-operation and avoid duplication of effort.

The Society does not have the power to prevent duplication of research, nor to allow members to claim topics as their sole intellectual property, nor to insist on co-operation. A proforma is enclosed with this issue of *Sheetlines* for your use.

## **A Small Scale Memoir on a Large Scale Beginning**

by Gadfan Morris

There was a thin layer of snow on the mountains as I rode on the valley train towards Cardiff where I was due to catch the connection to Southampton, and the Ordnance Survey.

It was the first day of March, 1937, and there were a few flags to be seen, a red dragon with its arthritic forepaw extended on a green background, in salutation to the national saint: not a propitious day on which to be leaving my native land.

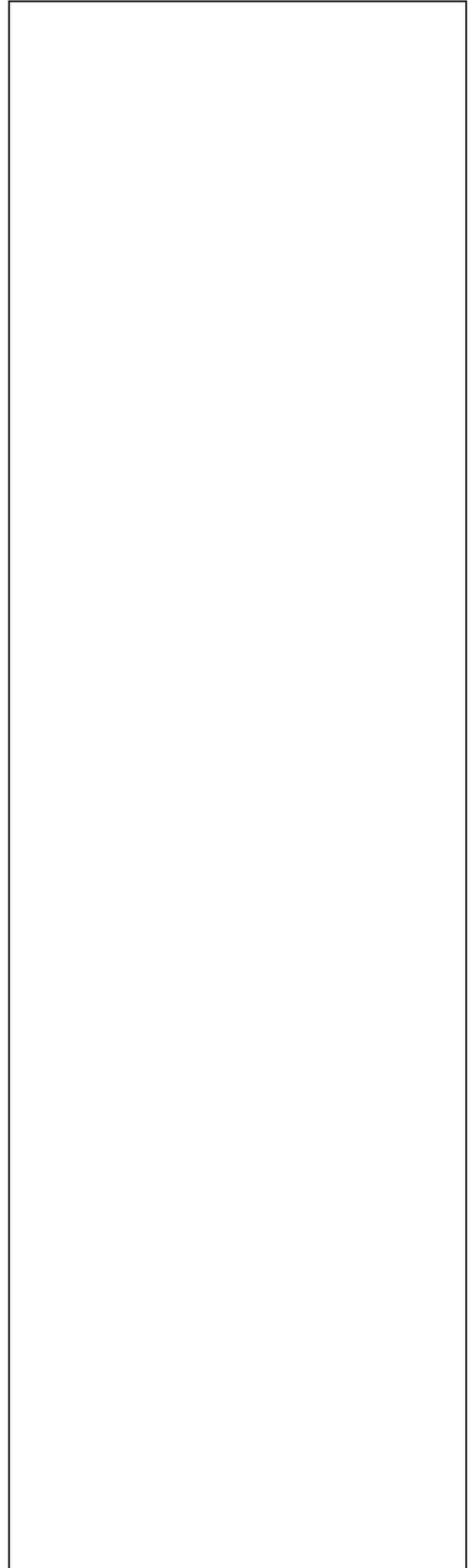
I was to report, not to the Ordnance Survey Headquarters in London Road, but to a building at the bottom end of the High Street, some two hundred yards below the famous Bargate. There I met thirty or so of my colleagues, all of whom were from South Wales, with one exception who was a Scot. Later on we conferred the title of Honorary Welshman on him which he seemed pleased to accept seeing as he was surrounded by a formidable horde of aliens from the opposite end of the Celtic fringe.

The offices we were to occupy were on the top two floors of the building which was the wholesale fish market. On the opposite of the road was a pub whose name I have forgotten; according to the local folklore it was the hostelry in which King Henry V spent the night before embarking for France and the battlefield of Agincourt. We used to say that he would have gone anywhere and fought anybody to get away from the perpetual smell of fish.

The gentleman in charge of us, who was also our instructor, was a sergeant in the Royal Engineers by the name of Mr Harding. We were to address him as such ("Not Sarge, if you please, gentlemen") as he was to address us by our surnames prefixed with the title 'Mr', which boosted our teenage egos no end.

We were issued with the necessary stores and signed for them in true military style: pencils, straight edges and ruling pens. The first lesson was how to use the ruling pen, how to fill it from the bottle of Indian ink (expendable — not signed for) and how to draw straight lines on a cellulose coated sheet of paper. The lines had to be of a certain thickness which were matched from a line gauge on which there was a series of lines duly numbered. Our lines had to

Part of the OS Six-inch Town Map of Southampton (1919 Revn with the Civic Centre superimposed), showing the positions of the OS offices mentioned by Mr Morris.



conform to line number eight — not number seven nor number nine: number eight or else!

There was much sharpening and adjusting of ruling pens undertaken by our instructor as he proceeded from desk to desk with his piece of rag and his little piece of emery paper. (The idea behind the coated paper was that lines could be erased with a tiny drop of spit on a little wad of cotton wool — also expendable!)

When he was satisfied that we could draw straight lines of the correct thickness, he showed us how curved lines were to be drawn. “All curves,” he announced with the gravity of Copernicus averring that the earth was not the centre of the universe, “are made up of tiny straight lines.” He paused, peered over his army issue steel rimmed glasses, and waited for the reaction this cataclysmic revelation had on us. We had got so bored drawing straight lines, day in, day out, that our minds had atrophied to such an extent that all we could say was “Oh, indeed”, or “Well, I never”. He then proceeded to demonstrate the drawing of a curve by manoeuvring the straight edge and depositing a minute drop of ink with his pen all the way along the curved outline. As he did so, we noticed that he encouraged the ink to flow more easily by drawing the point of the pen across the back of his fingers of his other hand. We copied this habit to them extent that by the end of the day our fingers resembled miniature zebras.

The next stage in our training as potential cartographers was the ruling over a section of a large scale plan printed in blue on coated paper. These sections progressed from plans of rural areas comprising mainly of fences and hedges, to the more complicated and intricate built-up town areas. This practice, too, seemed to have gone on for a very long time.

In order to relieve the boredom of it all, Mr Harding would cut out a pair of spurs from cardboard which he would surreptitiously tie to the heels of one of us (who was probably dozing to the end of the afternoon). Then he would follow the unsuspecting victim along the High Street much to his own amusement and ours.

After a month or two of practice drawing, we were moved along the High Street to larger and more salubrious offices. This was where the real

work was done. Each full size sheet of 25 inches-to-the-mile plan was accompanied by six traces on transparent paper on which new features had been drawn and old features deleted. These traces had been completed by revisers in the field and sent in for transferring by the draughtsmen.

The traces were pulls of the previous plan on which, by a method of sight-lining and measurements, the revision was carried out. Quite a few of us were selected to train and eventually become revisers; and many a tale they had to tell of being chased by bulls, bitten by dogs, yelled at by irate farmers, all compensated by the comforts (knitted?) bestowed on them by landladies’ daughters.

The new features were traced onto the plan and inked in. The draughtsman’s work was then checked by a senior cartographer. After edges with adjoining sheets had been compared, the plan was sent to have all the placenames printed in.

I became one of the few members of the department who was responsible for the insertion of names. This process involved the use of metal type as used by jobbing printers. The letters were held in a ‘stick’, inked with a pad and punched onto the plan. There were several fonts of type, each feature having its own characteristic, e.g. the parish village name would be in Roman, a district name in italics, street names in sans serif caps, and so on. A strict quota of names had to be recorded each day. This became easily attainable as one became more adept.

With each plan came a name book in which the names of all features were authenticated. Very often the spelling of a name would be disputed. A correspondence would ensure among the disputants. These letters, enclosed with the name book, were very amusing and the source of much laughter amongst us. The local vicar would question the squire, the squire would question the schoolmaster, and as the interchange of letters continued, each would question the sanity of the other two to say nothing of the legitimacy of their respective stations in life. In the end the O.S. would accept the version of the spelling as laid down by the local authority.

The Ordnance Survey at this time was a department of the Ministry of Agriculture and Fisheries. After a longish period of stability, it began to recruit in the late 1930's. The Ministry knew where to go for its recruits — to the depressed areas of the country where there were many young men of good education who could not find jobs locally. All my colleagues had been to grammar schools and educated up to Higher School Certificate standards (the present A levels) but could not afford to go further up the ladder of higher education.

My salary at the age of 19 in 1937 was 26 shillings (£1·30) a week, rising to £2·00 a week when I reached the age of 20. My digs averaged £1 5s which, in Mr Micawber's book, was happiness. But not in my book!

Shortly before the outbreak of war, we moved again to offices over some newly built shops immediately opposite the Bargate. The shops had commodious cellars in which we were to spend a considerable amount of time when the Germans sent raiders to bomb Southampton docks. A butter store received a direct hit on one daylight raid, the stench of which hung over us for a week.

The production of large scale plans soon came to an end. Field work was devoted to revising of built-up areas on Six-inch for the use of the ARP services.

Recruitment to the Survey Section of the Royal Engineers began among us, and for a few weeks we were moved again to temporary offices near the Civic Centre where we practised lettering. We were supervised and instructed in the art of lettering by another RE sergeant whom we taunted by standing on our desks and accompanied, choir-like, the Civic Centre clock chiming 'O God our help in ages past' at noon and four o'clock. Several of my friends were later posted to Alton for training with the Royal Engineers. For some unknown reason, my call-up was cancelled on the eve of departure for the training camp. (I used to say that I was reserved because I was the only one who knew where the pencils were kept.)

When the bombing intensified in the early 1940's, the O.S. was evacuated to Chessington. When Southampton HQ were partially destroyed

in the London Road, a Canadian built complex in Maybush, on the Romsey Road just outside the town, was taken over. This is where the purpose built headquarters of the present O.S. now stand.

The mapping of various countries was shared out among the sections, nobody knowing the purpose of all until the coming of the second front. Even then, some worked on remote places such as Spain and Portugal, as well as Germany itself! Here and there among the sections people worked on old French maps of Northern France, which were brought up to date from aerial photographs. I was presented with a map of the Arramanche area, printed on a glass plate, together with a set of aerial photos from which I had to extract the relevant detail. I recall an ad hoc conference between my seniors, a Colonel and myself as to whether a certain feature was a canal or a road. The Colonel said, "It could be of some importance", without a trace of irony. We decided on the feature being a road. At least we didn't hear of anybody being drowned on D-day under the impression that he was crossing a road.

Three or four years ago, my wife and I went on a short coach trip to Normandy. We visited the D-day beaches, and in one of the museums devoted to the 1944 landings, I spotted the sheet, part of which I had drawn. A Canadian veteran standing nearby overheard me telling my wife of my part in producing the map in question. He said he was most impressed by the quality of the cartography and accuracy of the detail, and congratulated us all.

During the course of writing this piece, I met a young man in the village where I live in Surrey who was going about his business of Ordnance Survey map revision. We compared methods of 55 years ago with the present ones. I hardly understood a word he said!

'O tempore, O mores!'

*(As well as the above offices, Mr Morris has told me that they did also go to the Ordnance Survey Headquarters for lectures; he particularly remembers being lectured in Triangulation by Major (later Brigadier) Hotine.)*

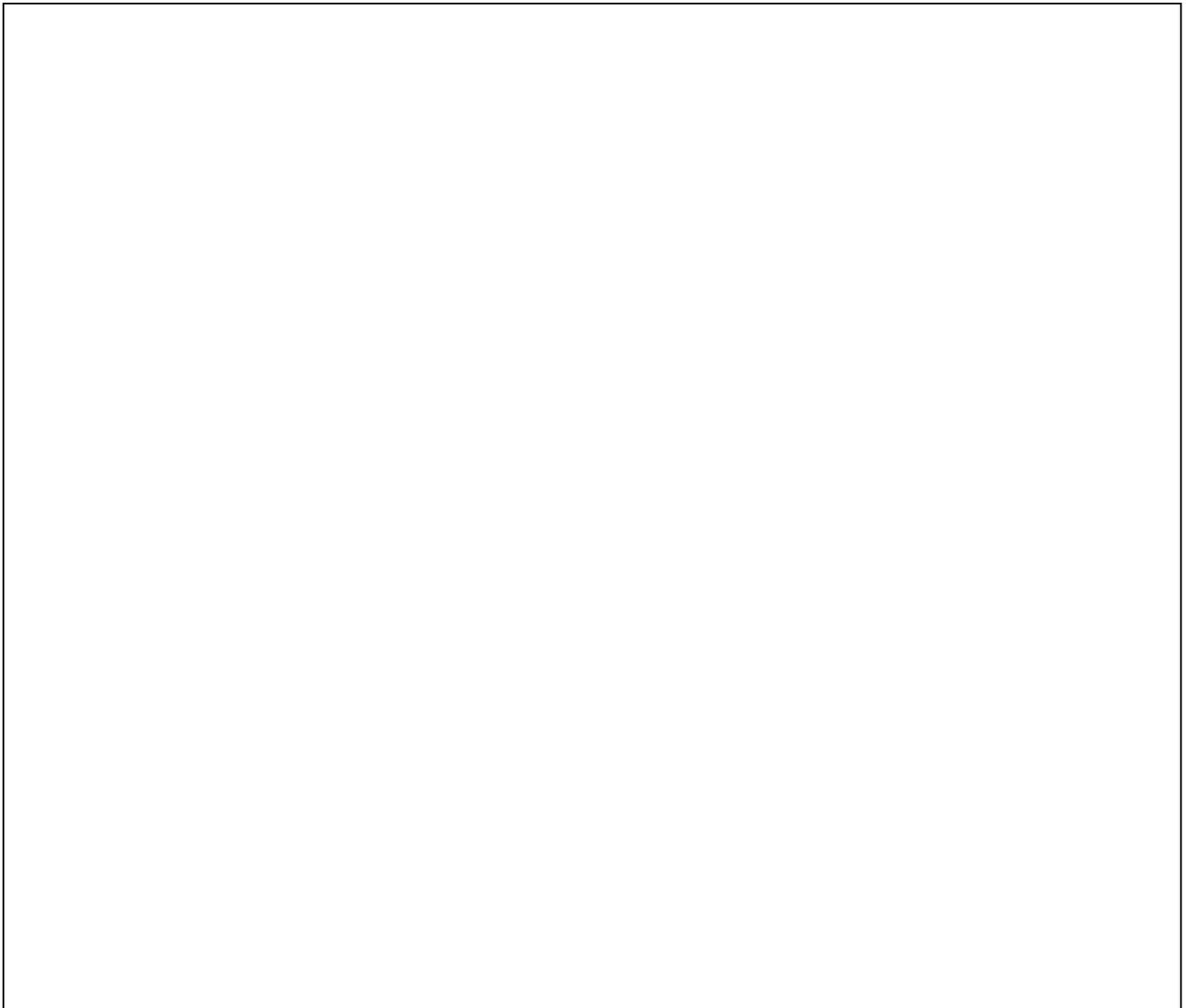
*After the end of the war, he left the OS to become a teacher, undertaking a course under the Emergency Teacher Training arrangements.)*

## Ordnance Survey Amphibians

Richard Oliver

In my *Ordnance Survey maps: a concise guide for historians*, pp.62–3, I drew attention to an error on Merionethshire Six-inch first edition Sheet 11 N.E., where the name Hendre-gwen-lyffiant (meaning ‘the old habitation of Gwen of the frogs’) appears, and I said that this was corrected to Hendre-Gwenllian (‘the old habitation of Gwenllian’) on the Second Edition, published in 1899. In fact, the correction was carried out when the first edition sheet was

reprinted in 1893; there is a copy in Merioneth Archive Office, and no doubt others are to be found. This prompts the question: was this an isolated instance (the *faux-pas* came to light during the proceedings of the Dorrington Committee on the OS of 1892), or were there other instances of place names being corrected on reprints of first edition Six-inch and 1:2500 mapping?



## 1:10,560 Ordnance Survey Maps — Lancashire Sheets 85, 92, 93, 94, 95, 102, 103

Notes on First Edition by C H A Townley

In the course of research into the development of the collieries in South Lancashire and the private railways which were built to serve them, I made use of the first edition of the Six-inch maps of the county. It soon became apparent that the copies held in the various libraries and archive offices differed significantly in some of their details.

The main purpose of the revisions was presumably to record the new public railways which were built from mid 1840s to the mid 1860s. There were, however, other alterations remote from the railways on some of the sheets. These alterations seem to have been confined to the insertion of new collieries and their associated private railways and tramways, but only on very limited areas of the map. Most of the important large scale mining developments and many of the new private railway systems which date from the 1850s and 1860s were ignored, as were other new industrial and domestic buildings.

In what follows, the public railways which were added to the maps have been used to provide the approximate dates of the revisions. There are a number of general points which should be noted.

The London and North Western Railway, which is featured on the majority of the maps, was formed by the amalgamation of several

existing companies in July 1846. The Lancashire and Yorkshire Railway was formed, also by the amalgamation of smaller companies, in July 1847. The East Lancashire Railway, which appears on Sheet 95, was independent until 1859.

There is an anomaly on Sheet 94, where the railway running through Leigh and Chowbent is labelled Bolton and Leigh Railway, which ceased to exist as a separate entity in 1845. The same line on Sheet 102 is labelled London and North Western Railway.

Two railways are, strictly speaking, incorrectly labelled.

The line running from Preston through Wigan to Parkside, which appears on Sheets 85, 93 and 102, should be North Union Railway and not London and North Western Railway. The North Union Railway was leased jointly by the predecessors of the LNWR and the L&YR as from 1st January 1846, although the surveyors could be excused for the mistake. This portion of the North Union Railway was operated and maintained by the LNWR.

The line from Bolton to Preston, which appears on Sheet 85, should also be labelled North Union Railway. This portion was operated and maintained by the Lancashire and Yorkshire Railway and it is this name which appears on the map.

The following abbreviations have been used to denote the location of the various revisions of the maps which have been examined :

BL (OS)	British Library Map Room Open Shelf Copies
BL (GEO)	Geological Survey Edition held in British Library Map Room
CUL	Cambridge University Library Map Room
LRO (OS)	Lancashire Record Office Open Shelf Copies (Dissected and mounted on cloth)
LRO (PC)	Lancashire Record Office Photocopies (These are the ones usually consulted by readers)
RGS	Royal Geographical Society Copies

- SHEET 85** Imprint - surveyed 1845-6, published 1849
- First State of Plate •The only public railways shown are London and North Western Railway (Preston, Wigan and Kenyon) and Lancashire and Yorkshire Railway (Preston, Bolton and Manchester).  
At BL(OS), LRO (OS) and RGS
- Revision of about which 1856 •The Wigan and Southport line of Lancashire Yorkshire Railway, was opened in April 1855, has been added.  
•The words “Tram Road” have been removed from the field boundary to the west of the lane between Scot House and Appley Bridge.  
•Coke ovens, chemical works and new railway sidings have been added south east of Appley Bridge  
At CUL. Also BL (GEO) published January 1861
- SHEET 92** Imprint - surveyed 1845-6, published 1849
- First State of Plate •No public railways shown  
At LRO (OS) and LRO (PC)
- Revision of about 1850 •On the northern part of the map, the railway running through Ormskirk, which opened in April 1849 has been added. There is also a railway terminating at “Coal Pit Lane” near Skelmersdale. The standard railway chronologies give the opening date of the Ormskirk to Rainford line as 1855, but this is incorrect. The portion shown on the map, serving collieries at Skelmersdale, was opened in about 1850.  
•On the southern part of the map, the Liverpool and Bury line of the Lancashire and Yorkshire Railway has been added. This opened in November 1848. Holland Colliery (two locations) and Albert Colliery have been added, joined to the railway by short branches.  
•No other obvious updating  
At BL(OS), BL (GEO), CUL and RGS
- The Geological Map, published December 1860, does not show the railway from St Helens through Rainford to Skelmersdale, which had been opened early in 1858.
- SHEET 93** Imprint - surveyed 1845-6, published 1849
- First State of Plate •The only public railways shown are the London and North Western Railway’s so called Preston Wigan and Kenyon line and the Springs Branch.  
At LRO (OS)
- Revision of about 1850 •The so called Liverpool, Bury and Manchester line of the Lancashire & Yorkshire Rly has been added. This opened in November 1848.  
•There are alterations to the private colliery railway at Upholland Station.  
•A number of additional private colliery railways have been inserted in the neighbourhood of Pemberton. One line, from No 10 Pit to No 9 Pit, has been deleted.

Six-inch Survey of LANCASHIRE

SHEET 93

as originally published in 1849

Pemberton

- There are alterations to the Ince Hall Coal and Cannel Company's Colliery alongside Leeds and Liverpool Canal and to the associated private railway. A Chemical Works has been added near Lock 17.
- There are alterations to private railways at Ince Hall Coal and Cannel Company's Colliery alongside Springs Branch Railway.
- Amberswood Colliery and "Tramway to Amberswood Colliery" have been removed and the private railway to Moss Hall Colliery altered.

At BL (OS) and RGS

Six-inch Survey of LANCASHIRE

SHEET 93

Taken from the revision of about 1856

Alterations at Pemberton which appeared on the revision of about 1850, after the opening of the Lancashire and Yorkshire Railway's Liverpool to Bolton line.

Revision of about  
1856

- The Lancashire and Yorkshire Railway's Wigan to Southport line has been added. This opened in April 1855.
- There are alterations to the private colliery railway at Walthew House and the portion of railway from Walthew House to Orrell City has been deleted.
- Otherwise everything is as on the BL (OS) copy

At CUL and BL (GEO) published February 1861

Six-inch Survey of LANCASHIRE

SHEET 93

As originally published in 1849

Railways and collieries at Ince

Revision of about  
1866

map.

- As for CUL copy but with Eccles Tyldesley and Wigan line of London and North Western Railway added. This opened in September 1864. By this time the plate had become quite worn and the new railway stands out very black in contrast to the paler background of the rest of the
- The style of drawing used for the embankments, cuttings and bridges on the new railway bear a remarkable similarity to that on the railway company's 2 chains to the inch Line Plan dated 1868.

At LRO (PC)

Six-inch Survey of LANCASHIRE

SHEET 93

Taken from the revision of about 1856

Alterations at Ince which appeared on the revision of about 1850, after the opening of the Lancashire and Yorkshire Railway's Liverpool to Bolton line

**SHEET 94**

Imprint - surveyed 1845-6, published 1849

First State of Plate

- The only public railway shown is the Bolton and Leigh Railway
- There is no colliery and no private railway in the south east corner of map, east of Tyldesley.

At LRO (OS)

Revision of about 1850

- The Wigan to Bolton line of the Lancashire and Yorkshire Railway, which opened in November 1848, had been added.
- Two short colliery branch lines have been inserted west of Hindley Station.
- The colliery tramroads/railways at the southern edge of the map, around Pickley Green and Westleigh, are unaltered.

At BL (OS)

Six-inch Survey of LANCASHIRE

SHEET 94

As originally published in 1849

Revision of about 1852

Alterations at Tyldesley

Six-inch Survey of LANCASHIRE

SHEET 94

As originally published in 1849

Revision of about 1852

Alterations at Westleigh

- Revision of about 1852
- A colliery to the east of Tyldesley and its associated private railway leading to the Bridgewater Canal have been added. The railway is shown by the conventional sign for a single track railway, but is labelled Tram Road.
  - These developments date from around 1850. They do not appear on the Astley and Tyldesley Tithe Maps, both dated 1847. The colliery is shown in a directory for 1851, but not one for 1848.
  - The private colliery railways at the southern edge of the map, around Pickley Green and Westleigh, have been altered and extended. They are now shown by the conventional sign for a single track railway, but are still labelled Tram Road. Springfield Colliery has been added. Other evidence suggests that these developments took place in the late 1840s.
  - Otherwise the map is unaltered.
- At CUL, RGS and BL (GEO) published February 1862
- Revision of about 1866
- The London and North Western Railway's Manchester, Eccles, Tyldesley and Wigan line and Tyldesley, Bedford, Leigh and Kenyon Branch have been inserted as well as a short connecting line at Chowbent. These lines were opened in September 1864. Again the style of drawing bears a remarkable similarity to that on the railway company's 2 chains to the inch Line Plan dated 1868.
  - A new colliery (Chanters, but not named on the map) has been added north of Tyldesley, near Eckersley Fold, and a private branch line to it is shown.
  - A new colliery has been added south of Hindley Green, with a short branch line.
  - The colliery railways at the southern edge of the map have not been altered from the previous map, although the Line Plan shows them extending north of the Eccles, Tyldesley and Wigan line.
  - Other industrial features remain unchanged from the map as originally published although there had been many developments in the intervening period.
- At LRO (PC)
- SHEET 95** Imprint - surveyed 1844-6, published 1850
- First State of Plate
- The public railways which are shown are the Lancashire and Yorkshire Railway's Preston, Bolton and Manchester line and the East Lancashire Railway.
  - A number of coal pits are marked at Halshaw Moor, but there is no tramroad between them.
- At BL(OS), LRO (OS), LRO (PC) and RGS
- Revision of about 1852
- The Clifton Branch of the London and North Western Railway, opened in February 1850, has been added.
  - The pits at Halshaw Moor have not been altered, but a tramroad is now shown.
  - A short branch line has been inserted to Great Lever Colliery. There is evidence that this was opened in 1849.

•A very short portion of the private railway from Tyldesley to the canal has been added in the south west corner.

At CUL, BL (GEO) published February 1862

Later Revisions

•It is possible that the map was revised about 1866 to show the London and North Western Railway's Eccles, Tyldesley and Wigan line, but no example has been found in the collections examined.

**SHEET 102**

Imprint - surveyed 1845-7, published 1849

First State of Plate

•The public railways which are shown are the London and North Western Railway's Bolton, Leigh and Kenyon line, Liverpool and Manchester line and Preston Wigan and Kenyon line and the triangular junction at Parkside. All were opened well before 1845.

•The line passing Parsonage Farm to the canal is shown as tramroad, but there is no connecting line to the LNWR.

At LRO (OS), LRO (PC)

Revision of possibly about 1852

•The line passing Parsonage Farm to the canal is still shown as tramroad, although by this time it must have been converted to a standard gauge railway as a connecting line to the LNWR has been added. The conversion is recorded by the change to the symbol for a railway on the continuation of the line on the circa 1852 revision of Sheet 94, but on Sheet 102 the symbol for a tram road has been retained.

At RGS and BL (GEO) published February 1862

Later Revisions

•It is possible that the map was revised about 1866 to show the London and North Western Railway's Bedford Leigh Branch (described on Sheet 94 as the Tyldesley, Bedford, Leigh and Kenyon Branch), but no example has been found in the collections examined.

**SHEET 103**

Imprint - surveyed 1845, published 1849

First State of Plate

•The only public railway is the Liverpool and Manchester line of the London and North Western Railway.

There is no private railway in the north west corner of map

At BL (OS), LRO (OS), LRO (PC) and RGS

Revision of about 1852

•The London and North Western Railway's Patricroft and Clifton line, which opened in February 1850, has been added.

•A private colliery railway has been added in north west corner of map (This originates at the colliery east of Tyldesley — see notes on Sheet 94).

•There are no other obvious alterations.

At CUL, BL (GEO) published March 1862

Later Revisions

•It is possible that the map was revised about 1866 to show the London and North Western Railway's Eccles, Tyldesley and Wigan line, but no example has been found in the collections examined.

## A yet earlier Ten-mile map

In the course of his research for *The Ten-mile maps of the Ordnance Surveys*, published by the Charles Close Society in 1992, Roger Hellyer (aided by Information Received from Ian O'Brien and Peter Clark on a forage some forty years earlier) located in the library of St John's College, Cambridge, a specimen of the Ten-mile Index map which was provisionally dated to *circa* 1817, and which until a few weeks ago was generally believed to be the earliest known surviving example of an OS ten-mile map. However, one of our members has turned up a yet earlier example, in the Lincolnshire Archive Office (reference Yarb. 4/29/7).

The 'new' map accompanies a copy of Parts I to VI of the OS One-inch Old Series, in excellent condition in their original wrappers. It is possible that the maps were purchased by the then Lord Yarborough (the largest landowner in

north Lincolnshire) in 1817, at a time when the Lincolnshire gentry were making their approach to the Ordnance Survey with a view to having their county mapped out of its proper turn. (The story is told in fully in Volume V of Harry Margary's *The Old Series Ordnance Survey* (1987).) The margins are complete, and the watermark appears to be HS 1809, although as the copy of sheet 4 in this collection, published in 1816, has an 1801 watermark, the watermark evidence is worse than useless! It differs from the St John's copy in that towns, but not villages, are named in sheets 1, 3, 19, 47 and 48 and in most of 6 and 8. The rectangle is complete and there are some latitude and longitude ticks on three sides. (As the map was examined in a hurry, it is possible that further examination will reveal other points of interest.)

*'Viator'*

## On the Ten-mile Map

In Sheetlines 41, Roger Hellyer's listing of the ten-mile maps briefly mentions the new Travelmaster map. It is reassuring to note that in this digital age it is still possible to find eccentricities on new maps. The two points noted below are most easily observed on the 1:10,000 and 1:10,560 Index sheet.

The 1:25,000 Index sheet (issued to members with that same issue of Sheetlines) has insets for Rockall, St Kilda and the four northern Skerries (Sula Sgeir, Rona, Stack Skerry and Sule Skerry), giving details of the 1:25,000 sheets on which they can be found. None of these outliers is mentioned on the 1:10,000 and 1:10,560 Index although, presumably, they were surveyed at this scale in order to be reduced for the 1:25,000 maps. This omission is not likely to be of major concern for many users in the case of Rockall and St Kilda but is rather more surprising for the four Skerries. These would not need to appear as insets but could have been put

in their rightful place, since the Travelmaster sheet lines have been extended from those of the Routeplanner map. Thus blank sea occurs instead of the Skerries.

The second point concerns the use of lower case bold type for certain names. I have traced its use just seven times on the northern sheet. It occurs four times in relation to transport features — the Erskine, Forth and Tay toll bridges and "Toll" adjacent to the Tyne Tunnel. It is used for just three places — Kyle of Lochalsh, Mallaig and Corbridge. The use of this typeface on the southern sheet is similarly restricted, embracing transport features and a small group of places including Wetherby and (for the benefit of that CCS member with a well publicised interest in grid square TA?) Immingham. I have not been able to identify any topographic linkage between just this small group of places which would justify the use of the same typeface.

*Peter Haigh*

## One-inch District Index Inserts 1897-1903

by Rod Monnington

A general description and examples of these inserts appeared in an article by Ian Mumford and Peter Clark entitled "Marketing of Maps before 1918" in *Sheetlines* 15 (pp 1-8). Briefly, they consist of a four page leaflet, page '1' is attached to the inside front cover of the map, page '2' describes the various O.S. maps available, page '3' is the individual page and contains an Index to the sheets of the (named) District, a list of agents and a list of head post offices in that District. Page '4' is blank on earlier printings and usually includes "Rules for Ordering" on later issues. (The page numbers are notional only.)

This present article includes some further general information, further examples, and finally a geographical listing of the various District Index Inserts recorded to date (Table 2). These inserts have been found in One-inch New Series maps in red covers, both series and district sheets. They have been recorded in Hellyer<sup>1</sup> Nos 1.1, 1.2, 2 and 3.1a covers. They were also included in the earliest issues of the Four Miles to One Inch maps, though none have so far been located accompanying the Two Miles to One Inch map.

Three different texts have now been recorded for page '2' headed "Ordnance Survey Maps". Two different settings of this text were illustrated in

<sup>1</sup> The Covers, by Dr Roger Hellyer, in *Map Cover Art* by John Paddy Browne, Southampton, Ordnance Survey, 1991.



*Sheetlines* 15, pp 5 and 6. A subsequent version amplified the descriptions somewhat and is illustrated in Figure 1 herewith. A third later version (Figure 2) included reference to the Four Miles to One Inch maps (two different settings recorded).

Two different general texts occur for page '3' headed "Index to the 1-inch maps of the (named) District". Both were illustrated in *Sheetlines* 15 (pp 5 and 6). In its penultimate paragraph, the earlier states that "Similar leaflets are in preparation for other districts of England and Scotland" whilst the later version (two settings) states that "Similar leaflets have been prepared for other districts of England and Scotland". Though not noted here, Welsh areas are also covered by the published inserts.

Regarding page '4', in the earliest printings this page is blank whilst later printings include "Rules for Ordering". Isolated examples exist of a pasted-on listing of the One-inch Town and District Maps available. One was illustrated in *Sheetlines* 15, p.7. An earlier one is given here as Figure 3.

Irish inserts have also been located, accompanying the Irish one-inch coloured and district maps. They are sometimes found placed loosely inside the map cover, the obvious consequence of which may go some way to explaining their rarity. Those known lack the sheet index of the British examples possibly because the generously worded description of the various map series available did not leave space for one. The inside pages of a 1903 example are illustrated as Figure 4.

The initial issues of the British inserts carried print codes which consist of a serial number, the quantity printed, the date (always 3/97), a Wt. (Warrant or Works Ticket?) number, and the printer's initials, E. & S. (presumably Eyre & Spottiswoode). Three different "Wt." numbers occur for England and Wales. Wt. 25049 covers the northern third of the country, Wt. 25050 the middle third and Wt. 25051 the southern. Inserts recorded to date with these print codes are listed in Table 1.



TABLE 1

## EARLY ISSUES WITH SERIAL NUMBERS IN PRINT CODES

	Print Code				District Indexed
A96869	7000	3/97	Wt. 25055	E. & S.	Edinburgh
A96883	10,400	3/97	Wt. 25050	E. & S.	Stafford
A96884	9300	3/97	Wt. 25050	E. & S.	Grantham
A96885					
A96886					
A96887	10,900	3/97	Wt. 25050	E. & S.	Birmingham
A96888	9000	3/97	Wt. 25050	E. & S.	Oxford
A96889	10,000	3/97	Wt. 25050	E. & S.	Northampton
A96890	9800	3/97	Wt. 25050	E. & S.	Ipswich
A96891	4900	3/97	Wt. 25050	E. & S.	Swansea
A96892	10,000	3/97	Wt. 25050	E. & S.	Gloucester
A96893	5800	3/97	Wt. 25051	E. & S.	North Devon
A96894	10,000	3/97	Wt. 25051	E & S	Bristol
A96895	9500	3/97	Wt. 25051	E. & S.	Reading
A96896	8100	3/97	Wt. 25051	E. & S.	London
A96897	3600	3/97	Wt. 25051	E & S	Truro
A96898	7000	3/97	Wt. 25051	E. & S.	South Devon
A96899	8200	3/97	Wt. 25051	E. & S.	Dorchester
A96900	9700	3/97	Wt. 25051	E. & S.	Portsmouth
A96901	12,200	3/97	Wt. 25051	E. & S.	Tunbridge Wells
A96902					
A96903	1500	3/97	Wt. 25049	E. & S.	Alnwick
A96904	2100	3/97	Wt. 25049	—	Carlisle
A96905	4700	3/97	Wt. 25049	E & S	Newcastle-upon-Tyne
A96906					
A96907					
A96908					
A96909	8800	3/97	Wt. 25049	E. & S.	York
A96910					
A96911	10,400	3/97	Wt. 25049	E. & S.	Manchester

The next batch of printings or reprints did not include any print codes. Inserts in this group have been recorded for the following Districts of England and Wales:-

Aberystwyth, Alnwick, Birmingham, Bristol, Carlisle, Gloucester, Grantham, Ipswich, Kendal, Lancaster, Liverpool, London, Manchester, Newcastle-upon-Tyne, Northampton, North Devon, North Wales, Norwich, Oxford, Portsmouth, Reading, Salisbury, South Devon, Stafford, Swansea, Truro, Tunbridge Wells and York.

Only four inserts for Scotland have been recorded in this group:-

Aberdeen, Dundee, Glasgow and Oban.

In addition one is known for Ireland.

In 1901 a modified print code appeared consisting of the number printed and the date. Inserts in this group have been recorded for the following Districts:-

Aberystwyth	[4000-27-3-02]	Manchester	[5000-14-7-02]
Gloucester	[10,000-21-2-02]	Northampton	[3000-3-6-02]
Ireland	[1000 23-9-02]	North Devon	[5000-6-12-01]
Ireland	[1000 23-12-02]	North Wales	[1000-17-11-02]
Ireland	[1000 12-3-03]	Stafford	[3000-13-6-02]
Ireland	[1000 21-7-03]	Stafford	[1000-1-12-02]
Lincoln	[1500-26-7-02]	Stafford	[1000-3-2-03]
Lincoln	[550-30-4-03]	Tunbridge Wells	[2000-28-7-02]
London	[3000-29-7-02]		

Regarding the Index diagrams for England and Wales, these are portions of the same Index diagram to the 360 sheets of the One-inch New Series that appear in contemporary issues of the Ordnance Survey Catalogues. Each diagram usually, but not always, covers a block of twenty sheets, five sheets wide by four sheets deep. Variations occur near the coast. Each District index usually, but not always, overlaps the adjacent District indexes by one line of sheets either horizontally or vertically.

When inserts were reprinted, the opportunity was taken to revise the lists of agents and head post offices. Thus, the first printing of London District lists six agents and 24 head post offices, whilst a later printing, without print code, lists nine agents and 39 head post offices.

A geographical list of the various District indexes recorded to date, together with abbreviated details of the sheets included, is listed in Table 2.

TABLE 2

## GEOGRAPHICAL LISTING, ENGLAND AND WALES

District Indexed	Number of Sheets on Diagram	Lowest/Highest Sheet Numbers	District Indexed	Number of Sheets on Diagram	Lowest/Highest Sheet Numbers
Alnwick	10	1/10	Birmingham	20	151/201
Carlisle	13	7/25	Northampton	20	155/205
Newcastle			Ipswich	19	187/242
-upon-Tyne	16	7/27	Swansea	22	192/262
Kendal	20	22/51	Gloucester	20	196/252
			Oxford	20	200/256
Lancaster	17	47/77	London	18	239/290
York	20	51/81	Bristol	20	248/298
Liverpool	11	74/108	Reading	20	252/302
Manchester	20	74/112	Salisbury	20	264/316
Lincoln	20	78/116	North Devon	20	275/326
North Wales	17	105/151	Tunbridge Wells	16	286/334
Stafford	20	108/155	Dorchester	16	295/343
Grantham	20	112/159	Portsmouth	18	298/345
Norwich	20	129/191	South Devon	18	322/356
Aberystwyth	15	149/197	Truro	12	322/360

## GEOGRAPHICAL LISTING, SCOTLAND

Glasgow	12	S14/40	Dundee	14	S39/67
Edinburgh	11	S16/41	Aberdeen	16	S64/97
Oban	16	S36/64			

Acknowledgements are due to the following members who have reported examples of inserts in their collections:-

D. Archer, M. Ashworth, T.C. Bleasdale, E.H.W.J. Burden, M.G. Cottrell, R. Dean, R. Hall, R. Hellyer, G.A. Meatyard, the late K.G. Messenger, T. Nicholson, C.I.M. O'Brien, R.R. Oliver, N.G. Porter, T.P. Sanderson, P. Sellstrom and P. Stratford.

Thanks are also owing, for their assistance, to the librarians in the map rooms of the University Library, Cambridge, and the National Library of Scotland, Edinburgh.

*A postscript from Roger Hellyer:*

Rod had this article almost ready for publication when he so tragically died. David Archer and I have endeavoured to complete it with a few minor revisions and a little additional information culled from recent acquisitions. Miki Monnington, Rod's widow, gave her blessing to the revision and publication of the article, and we

offer it now in memory of Rod and as a tribute to his caring and careful study of Ordnance Survey maps. It would please us all if anyone with information which would fill the remaining gaps would contact David, the editor of *Sheetlines*, or myself.

### Subtle change in Symbol meaning

John King has written regarding the change in the meaning of the symbols +, ⚓, ⚓ which came to his notice in the process of marking the 1994 London Board GCSE Geography examination. Candidates had been asked to identify the symbol of a church with a tower at a particular grid reference. However, a colleague marking the paper found the answer was given as 'Place of Worship'. Neither John nor nine other teachers he questioned had been aware of any change in the terminology.

The Ordnance Survey responded to his query on the change explaining that it was in the latter part of 1983 that a question was raised on the way the OS depicted places of worship. It became apparent that the depiction could expose the Ordnance Survey to a charge of religious, and possibly racial, discrimination. A study group was therefore convened to discuss the problem and find a solution. The preliminary meeting took place on 1 November, 1983.

The problem facing the committee was not just how to represent a particular place of worship, but whether a description should be used; and what should the description be. At that time there were 779 religious denominations

registered in England, Scotland and Wales. 'Thankfully,' added the Ordnance Survey, 'this was not California.' Moreover, many of the minor denominations had long names, which added to the problem of descriptions — especially on smaller scale mapping where space is often at a premium.

Amongst the initial recommendations made in September 1984 were the following:

1. that on *Landranger*, *Pathfinder* and *Outdoor Leisure*<sup>2</sup> maps all religious buildings, other than very large edifices, will be shown by symbols,
2. if unacceptable clutter ensues selection will not be based on ethnic nor denominational grounds. Those religious structures with towers, minarets, spires or domes will be given preference,
3. large religious edifices will be depicted with an accentuated outline, infill and abbreviated description.

The following month the Working Party presented its report. Of the above recommendations, 2 was excised, 1 had *all* taken out, and

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<sup>2</sup> And presumably now the *Explorer* maps

*symbol* was amended to *current symbols*, and 3 was left intact.

In January 1985 a further suggestion, in respect of symbol representation on the face of the map and the legend, was put forward to use the existing symbols for depicting churches on small scales mapping. They were to be designated as 'Places of Worship' rather than churches; it was felt that this particular cross was not a Christian symbol and so could be used for other denominations.

On 1:25,000 maps the rules are:

- \* large religious buildings (e.g. cathedrals, abbeys, temples) are always shown as important buildings and will be named and described. They will not carry a symbol. The descriptive term will not be abbreviated,
- \* places of worship other than those in the above rule will be shown by the symbol as indicated on the Places of Worship models. The symbol will be placed in the centre of the building. All places of worship will be considered for inclusion. In rural areas all places will normally be shown, but in urban areas it may be necessary to make omissions because of unacceptable congestion. The following guidelines are to be used:
  1. all religious buildings which constitute navigational aids (i.e. with towers, spires, minarets, domes) will be shown,
  2. after including all buildings with elevated structures, if no congestion, preference will be given to buildings which are more than 250 sq. metres in area. If no congestion, other places of worship will be shown,
  3. no building of any size will be omitted unless there is clear evidence that it does not have an elevated structure,
- \* under no circumstances will selection be made on religious or denominational grounds,
- \* places of worship not in use but not used for other purposes will be shown by a symbol,
- \* ruined places of worship will be shown by symbol and described "ruin",
- \* places of worship in secular use will be shown as normal buildings.

The rules regarding the depiction of places of worship on Landranger maps, although worded a little differently to the above, are essentially the same. Changeover has gradually taken place as respective sheets come up for new editions. For some maps, due to the area that they cover changing very little over the years, the application of these rules will be a long time away; for the large urban conurbations, change was swift to come.

The first instance of the use of the symbols on Landranger maps was the B edition of sheet 171,

Further various suggestions were considered, but more questions were raised than solutions found. Other points of view entered the frame, e.g. whether the respective building could be considered a navigational aid; many mosques and synagogues because of their size are so considered. And what of the Place of Worship which occupies somebody's front room?

Rules finally appeared in April 1986 after protracted, but necessary, discussion.

*Cardiff and Newport*, which was published in November 1991. Unfortunately, the Ordnance Survey are unable to find a similar listing for the 1:25,000 series.

Full size reproduction of 'Places of Worship'  
Crown Copyright

## The ‘Southampton Circulares’

In the late Dr J.B. Harley’s *The Ordnance Survey and Land-Use mapping, 1855-1918* (1979) and in my *Ordnance Survey maps: a concise guide for historians* (1993) reference is made to, and extracts quoted from, ‘Southampton Circulares’. As there seems to be some doubt and misunderstanding about these ‘Southampton Circulares’, it may be as well to put on record what they are and where they are — or were. They are a collection of circulars dating from between 1880 and 1922, most of which were sent out by OS HQ at Southampton to its various field divisions, but a few of which, relating to specifically Irish matters, were originated by the OS office at Phoenix Park, Dublin. The original set was in the archives of the Ordnance Survey of Ireland, where it may still be, although it may

have been transferred recently to the National Archives of Ireland. At any rate, any originals in Southampton would appear to have been destroyed by bombing on 30th November or 1st December 1940, but some time after 1945 OS of Ireland supplied a set of photocopies to OS of Great Britain. In about 1978 OSGB in turn photocopied their set for the late Dr Brian Harley, and information published by me derives from that set. The OSGB set may be in the OS Library at Southampton; the location of the ‘Harley’ set is at present unknown. Most of the ‘meat’ in them as regards large-scale OS mapping was extracted and published by Brian Harley or myself, but there remain some small-scale snippets which might well be included in future issues of *Sheetlines*.

*Richard Oliver*

## Mirrors of History — (1) A Nice Irony

Tim Nicholson

When the Allies liberated Paris on August 25th, 1944, and Brussels on September 3rd, they also “liberated” quantities of unused maps of the British Isles prepared by the Wehrmacht for operations against this country. It is said that more were found in Antwerp when that city fell on September 4th. The Maps were photographically enlarged, metric scale versions of contemporary Ordnance Survey small scales, with German legends in the margins, but otherwise unaltered. They were on paper of excellent quality, in very short supply in those straitened times, so were immediately put to use by the allied authorities and, it seems, by local entrepreneurs into whose hands they came. They were put to a variety of purposes, apparently

ranging from theatre posters to allied campaign maps of Western Europe. An extract of one recycled map is shown here. On one side is part of a German sheet of the island of Coll in the Western Isles of Scotland, on a One-inch-derived scale of 1:50,000. On the other side is printed a visitors’ street and Metro plan of Paris familiar at the time and later, which the writer remember using in the 1950s. On it has been overprinted British and Canadian forces welfare facilities, such as NAAFI, ENSA, and British and Canadian Officers’ Clubs, for information of the liberating armies. A great many of these German maps, unaltered, found their way into Britain. If someone can find out enough about them, it would be nice to see an article in *Sheetlines*

*(This is the first in a series of occasional articles describing the involvement of Ordnance Survey products in events of the time)*

Over, centre spread showing the *Map of Paris* described in the text

## Some comments on railway revision on Ordnance Survey maps, 1880-1914

Richard Oliver

In *Sheetlines* 38 the question was asked *Did the OS only record what existed?*, and in *Sheetlines* 39 Rob Wheeler drew attention to several discreet traces of the otherwise unmapped Great Central Railway's London Extension which appear on the early states of One-inch New Series Sheets 156 and 170. (These sheets were revised in 1897 and 1898 respectively; the London Extension was authorised in 1893, and opened to mineral traffic in 1898 and to passenger traffic in 1899.) I have now been able to examine these two sheets, and the fragmentary depiction is a little baffling, particularly in the light of the Ordnance Survey's instructions of this date, which are quoted below. The best explanation which I can come up with is that where to have ignored the railway would have been to create a blatantly misleading impression — for example, where it crossed Swithland Reservoir, where buildings had been cleared in Leicester, and where a road had been diverted — then a compromise was reached between ignoring the railway and depicting it. It should be noted that the position in 1897–8 was that Sheets 156 and 170 were undergoing full revision, whereas the instructions quoted below appear to relate to inserting railways between full revisions: they would certainly have applied when the G.C.R. London Extension was added to the sheets it crossed (including 156 and 170) in 1899.

The instructions are quoted exactly: students of OS 'house style' will notice the capitalisation in 'Six-inch' and 'One-inch' in the opening paragraph! The original of this is in the 'Southampton Circulars', of which the originals are understood to be in the custody of the Ordnance Survey of Ireland. Unfortunately no copies are known to survive of the 1879 and 1886 circulars cited in the heading.

*A copy of the instructions is reproduced herewith, but it should be noted that the original text was entirely in italics.*

These instructions raise a number of interesting points. Comprehensive instructions

for general One-Inch revision had been issued in 1896, which do not go into such detail as to railway revision: the words 'The Surveyor should make himself acquainted with the style in which Railways are shown on the revised One-inch Map' suggests that these instructions of 1897 were intended less for experienced OS small-scale revisers and more for OS staff who were accustomed to other duties (not least large-scale revision, where the signal boxes and so on would be surveyed in the normal course of things), and perhaps for army officers who were not accustomed to regular surveying at all. It is remarkable that, if the print-code at the end is not misleading us, no less than 1000 copies of these instructions were printed, or rather reprinted in 1902: who used them all? In contrast, in 1936 only 200 copies were printed of the instructions for revising and drawing the One-inch Fifth Edition, notwithstanding that copies were available for sale!

The instruction that cuttings and embankments less than six feet in height are not to be shown could be interpreted as coming from a desire not to overload the finished map with unnecessarily pedantic detail, but I think that its purpose is firmly military: six feet is just the right height for concealing troops! The instruction that approximate heights in feet of cuttings and embankments were to be recorded might be interpreted as intended to help the draftsmen at Southampton, in that a cutting, say, sixty feet deep might be expected to be broader than one twenty feet deep, but its purpose might also be military. Published civil OS maps have never recorded the construction material of bridges, but this information does appear on the Military Map of East Anglia, prepared *circa* 1911-14, and it must be assumed that this information was collected for military purposes.

These instructions were only intended for railway revision of the One-inch map (and by implication smaller scales). The practice for large-scale (1:2500 and Six-inch) mapping in the

**INSTRUCTIONS**  
**FOR INSERTION OF RAILWAYS, &c., FOR 1-INCH MAP**  
(WITH REFERENCE TO DG'S CIRCULARS OF 7TH NOVEMBER, 1879,  
AND 20TH JULY, 1886).

Six-Inch Impressions are supplied on which the Surveyor should insert in Red Colour the Railway (or Railway Stations, &c.) for reduction by the draftsman at Southampton to the One-inch Scale.

The Surveyor should make himself acquainted with the style in which Railways are shown on the revised One-inch Map. He must insert clearly all that is required for One-inch purposes, but should not waste time on features which are not shown on that map. As a passenger line has to be engraved about two chains wide on the One-inch Map, and most bridges about three chains wide, it will be understood that fine draftsmanship is not required, but a bold and clear style of penning in should be adopted, so as to enable the draftsman to see at a glance what is meant.

A Passenger Railway, with two or more lines of rails, will be shown by one continuous red line, with sleepers at about one chain intervals. A Single Passenger Line to be shown by one continuous red line with sleepers at about three chain intervals. A Mineral or Tram Line to be shown by a continuous red line without sleepers. The various kinds of line must also in all cases be distinguished by writing along the line on the Six-inch plot,

(Double, Passenger)  
(Single, Passenger)  
(Mineral Line),

or as the case may be.

Descriptions such as 'Goods Siding', 'Line to Coal Pit', &c., &c., are always useful.

The names of the Railway and the Stations must be written on the plot, and the Name Sheets (O.S.21) supplied. This form (O.S.21) must show clearly the name of the Company to which each part of the line belongs, and the Company which works the line.

Bridges must be drawn so as to show clearly whether they are under or over the Railway. The material to be distinguished as follows:—

(M) for Masonry or Brick.  
(I) for Iron.  
(W) for Wood.

When necessary two or more letters to be used for one Bridge. Cattle Creeps should be shown as Bridges, but mere culverts should not be shown. Foot-bridges must be distinguished by writing the word 'Foot Bridge'.

Level crossings to be indicated by the letters L.C.

The position of the Booking Office at each Station to be shown by the letters B.O., and an arrow pointing to the Office itself.

All important Cuttings and Embankments must be shown, and the greatest height of the slope must be noted (approximately) in feet on each side of the line.

Where the height of the slope does not exceed six feet, the Cutting or Embankment is to be omitted.

All alterations of detail must be clearly shown, as for instance, the diversion of a road or river. Details which have disappeared, such as Houses or Ponds, must be distinctly cancelled.

All New Roads, and Old Roads which are diverted, must be coloured burnt sienna. The approximate width of the metal of each road is to be written in feet, and the state of repair. This will enable the roads to be suitably classed with reference to the surrounding roads.

Whenever it is difficult to show any detail - e.g. the way in which a Footpath or Road crosses a Railway, or the position of the Booking Office - an enlarged sketch of the feature in question (not necessarily to Scale) should be drawn on the margin, in such a way as to enable the draftsman to understand what is meant.

The following are among the details which are not required for One-inch purposes, and which, therefore, should not be shown on the Six-inch impression:-

Mile Posts and Signal Posts.

Small Buildings, such as Signal Boxes and temporary buildings used during the construction of the line.

Short Sidings (Important Sidings must be shown).

Boundary Fences (but the Fences which bound the Main Road or Roads leading to the Booking Office must be inserted, so that the approach to the office may be correctly shown on the One-inch). It is useless to supply the fences which bound the Railway on each side.

Railways in course of construction.

(By Order)

A.M.MANTELL, Major, R.E.,

11th October, 1897.

O.1-inch Revision.

period 1880-1914 differed in two respects. First, there was virtually no intermediate revision of large-scale mapping, so that new railways were only added in the course of the next full revision. Since post-1914 economies resulted in much 1:2500 County Series mapping going unrevised between *circa* 1901-6 and the 'overhaul' for National Grid mapping in the 1960s and 1970s, a number of railways built in the decade before 1914 which fell victim to either the Beeching or earlier economies only appeared at the 1:2500 scale as 'disused': a good example is the Great Northern Railway's 15-mile-long Kirkstead and Little Steeping line, in east Lincolnshire, opened in 1913 and closed in 1970, in a district which went unrevised at 1:2500 between 1905 and the 1970s. Second, railways under construction were surveyed, to the extent of showing the outer fences (if erected) and any obviously permanent features, such as station buildings: embankments and cuttings were not shown, nor were temporary tracks and buildings. The difference in practice between the One-inch on the one hand and the larger scales on the other can be accounted for by the former being topographical and selective in its nature, designed to show the leading features of the country and to assist travellers, whereas the latter aims to show every permanent feature attached to the ground, within the limits of scale.

The Ordnance Survey began adding new railways to published One-Inch mapping from the late 1830s onwards — the addition of the Grand Junction Railway to Old Series sheet 72 S.W. is perhaps the earliest example — and although between 1840 and about 1880 newly-opened lines occasionally went unmapped, from about 1880 nearly all new passenger lines were added to published One-inch New Series mapping, although new goods and mineral lines often seem only to have been added at the next full revision. New passenger stations, including wayside 'halts' which proliferated after 1900, and some upgradings from single to double track (notably of the Great North of Scotland Railway's main line around 1900) were also added. A curious exception is the London, Brighton and South Coast Railway's 'Quarry Line', opened between Coulsdon and Earlswood in 1900, which, however, was not added to Sheet

286 until it was republished in Third Edition form in 1904. Difficulties also arose with the introduction of colour-printing: whereas the engraved maps were printed in small quantities, colour-printed maps were printed in much larger quantities, and were much more widely distributed. This could lead to some strange anomalies: the Kirkstead and Little Steeping line was duly added shortly after opening to the engraved copper plates, and to Half-inch Sheet 14 when it was reprinted in 1914, but it only appeared on a coloured One-Inch when Popular Edition Sheet 48 was published in 1923. Third Edition Large Sheet Series Sheet 48 had been reprinted in 1912, and although it was reprinted several times after 1914, the Kirkstead and Little Steeping was not added because of a ruling in December 1914 against publishing any further small-scale revision, as a security measure.

It may be noted that the practice on both large- and small-scale newly surveyed or revised OS mapping has been to show abandoned railways as completely as their condition permits: thus all extant embankments and cuttings are shown, as is the course of the line where the rails have been removed but its course is still clearly evident on the ground. This applies both to railways which have been opened and subsequently closed, and to those which were abandoned part-built. Good examples of these on One-inch New Series mapping are the section of the Newmarket Railway from Great Chesterford to Six Mile Bottom, which was opened in 1848 and closed in 1851 (Sheets 188 and 205), and the Hundred of Tendring Railway, abandoned part-built as a result of the financial panic of 1866 (Sheet 224). These sheets were engraved in the late 1880s, and clearly show so much of these railways as could be easily seen on the ground — mostly the earthworks — but another victim of the 1866 panic, the Surrey and Sussex line, which appears as 'Railway Unfinished' on the Six-inch and 1:2500, with some earthworks and bridges, but without rails, was nonetheless shown with the 'sleeper' symbol on One-inch New Series Sheets 270, 286 and 287 as first published in 1876-9, and, if Sheet 287 was to be believed, achieved the extraordinary feat at Markbeech of running up one side of a hill and down the other! This

line was subsequently resuscitated and opened to traffic in 1884 and 1888, with a tunnel at Markbeeceh.

It is unlikely that we will ever discover the administrative background to the instructions of October 1897 quoted above, or to the circulars of 1879 and 1886, and one can only conjecture as to what prompted them. It is just possible that the 1897 instructions were prompted by recent One-inch revision experience involving the G.C.R.

London Extension: 'common sense' would be to record the London Extension in the course of general One-inch revision, rather than to go to the expense of revisiting the ground a few years later and recording it then. Possibly several revisers worked on the sheets crossed by the London Extension, and their varying answers to the question of whether or not to record it prompted Major Mantell's instructions.

## **Index Diagrams for Maps**

A simple method of annotating index diagrams not mentioned in Richard Oliver's article in *Sheetlines* 41 is the corner 'tick'. It is used by the Directorate of Overseas Surveys on its Index Maps and according to whether the 'tick' is solid triangle or a line, and if all four

corners of a square are used, quite detailed information can be conveyed, e.g. edition of map, coloured or outline, etc.. If coloured 'ticks' are used, say highlighter pens, the possibilities are enhanced further. One might even have a line in one colour and the infill in another.

*Richard Porter*

## Boer War Mapping and Cape Roods

*Ian Mumford writes:*

Out of the more than 40,000 words I wrote for the Ordnance Survey History<sup>1</sup> only a couple of hundred were devoted to the Boer War. This reflected my view that the redeployment of some RE officers and men from their peacetime billets at the Ordnance Survey, and the diversion of some production facilities at Southampton, was a War Office decision, not an OS one. How irrelevant the OS was to the South African War can be judged from the 1902 edition of *Methods and Processes*<sup>2</sup>, which contains hardly a sentence which was applicable to production and survey activities in the field against the Boers.

Southampton, as usual in an emergency, diverted some printing and cartographic resources to meet War Office demands, but the Reports by Jackson and Casgrain<sup>3</sup> damn with very faint praise the relevance of the peacetime employment of the military on the OS. Indeed, they made quite a strong case for an effective home *military* survey establishment in peacetime, in place of the confused military/civil department the OS had become since it was first transferred to a civil department in 1870. It is worth remembering that unlike most of the European national mapping organisations, the OS kept its historic military title, and did not lose its last military Director until the end of 1983.

The skills required in the field were closer reflections of the Engineer training provided generally at Chatham. The Reports give a detailed account of the surveys and of the maps produced and distributed in South Africa which cannot be deduced from generalised military histories and odd map examples encountered. For example, the new edition of the Jeppe map of the Transvaal in 6 sheets, printed in

Switzerland and distributed by Stanford in London, was not just ‘fortuitously intercepted’ in Cape Town — £2780 purchased the stock which was then sent on to Pretoria. That sum compares with the £15999 paid to Wood and Ortlepp for the production and stock printing of their maps, and the £2600 for Casgrain’s 33 sheet extension of their map during the campaign.

The 62 sheets of ‘crudely printed’ maps at 1:148752 compiled from farm surveys under Jackson’s direction, of which John Cruickshank has seen two examples, totalled in all 275,800 copies printed in from 2 to 6 editions, of which 162,000 were issued. These represented just over half of all the maps of all series printed and issued by the Mapping Section in South Africa. They must have been of considerable use to somebody!

The history of the British military survey in South Africa was for many years the interest of the late Bill Watson of Trig Survey, Pretoria. Currently Professor Elri Liebenberg of the University of South Africa, Pretoria, is rounding out for publication in English her many years of research which began with her thesis, in Afrikaans, on the mapping of South Africa.

There is no map class in the PRO for the Boer War, and as a result the maps and related papers there are difficult to collate using only the Boer War class list WO 108 and the PRO List of Maps Volume 3, Africa, for starters. The British Library Map Library has a fair sprinkling of the maps, but nobody has done for their holdings what Bob McIntosh did for the admittedly more easily recognised maps of the Western Front from the Great War. The concentration of archival and library materials in London is a fact which researchers world-wide have to take into account. There is no substitute for a lot of time spent in the London collections, as Peter Chasseaud and Crispin Jewitt have demonstrated with substantive works.

<sup>1</sup> *A History of the Ordnance Survey*, Ed. W.A. Seymour, pub. Wm Dawson and Sons Ltd., 1980

<sup>2</sup> *Methods and Processes* adopted for the *Production of the Maps of the Ordnance Survey*, 2nd edition, HMSO, 1902

<sup>3</sup> H.M. Jackson and P.H. du P. Casgrain — *Reports on Survey and Mapping Sections in South Africa*, [W.O. confidential print 1903 (B438)]

*Ian O’Brien writes:*

I would strongly support any effort to produce a comprehensive study of British

military mapping of South Africa during and immediately after the Boer War. Elri Liebenberg

lists six series produced during that war in her paper *The Topographical Mapping of South Africa*, presented to the International Cartographic Association at Bournemouth in 1991. I know of a seventh, the *New Military Map of the Colony of Natal*, 1:148,752 compiled by the Field Intelligence Department 1900, which is notable for its comprehensive compilation now. (Bartholomews were selling off copies about ten years ago.) Perhaps other gems await discovery.

The Cape Rood has a curious history. It appears that the first Dutch settlers brought with them the Rhineland Rod or Rood, divided into 12 Rhenish feet. (By mid eighteenth century, the latter unit corresponded to 1·029 787 English feet, according to G.T. McCaw<sup>1</sup>.) However, as the

<sup>1</sup> G.T. McCaw's note *Linear Units Old and New*, Empire Survey Review, Oct. 1939, E.H. Biesheuvel *Maps and*

*J.R. Smith from Petersfield writes in a similar vein:*

The Cape Rood was derived from the Rhynland (Rhineland) rod, which was, in the late 19th century, = 12·357 45 English feet<sup>1</sup> The value was derived by conversion from the French foot to Rhenish foot relation via the metre. Then in<sup>2</sup> we read that "In South Africa it was found

<sup>1</sup> G.T. McCaw's note *Linear Units Old and New*, Empire Survey Review 34, Oct. 1939, pp236–259

<sup>2</sup> G.T. McCaw *Units of length and area II*, Empire Survey Review 40, April 1941, pp 85–93

*Richard Porter also writes:*

The Ordnance Survey International Library holds trig lists produced by the Trigonometrical Survey of South Africa giving co-ordinates of triangulation stations in Cape Roods up to 1968, after which they were replaced by International

Dutch authorities failed to supply the colonists with a standard bar, local surveyors' chains came to vary in length considerably. Eventually the British administration was driven to proclaim in 1858 that the local standard of measure was to be the Cape Rood of 12 Cape Feet (not to be confused with Cape Geodetic Feet), 1000 Cape Feet being equal to 1033 Imperial feet. Given therefore that all surveys were carried out in Roods while all soldiers measured distances on their map in inches, 1:148,752 (1000 Cape Roods to the inch) becomes a logical choice. You can see why South African maps are now all 'metricated'.

*Land Use*, ESR, Oct. 1956, and *The South and East African Yearbook and Guide* for 1933

that the Rhynland rod had been slightly elongated by the Dutch Colonists. Its length is now (written in 1941) standardised at 12·396 Eng ft.." This is 148·752 Eng inches, whence 1000 rood = 148,752 inches and hence the scale.

By the way, G.T. McCaw, a geodesist, was the first and long time editor of the Empire Survey

Metres.

There are 12 Cape feet in 1 Cape Rood, and Cape Feet were used to number the grid ticks on the South Africa 1:250,000 Topo-Cadastral Series, again into the 1960s.

### **Work in Progress: OGS Crawford — a new study**

I have received a request from Heidi Bennett, a PhD student, who is researching OGS Crawford, the first Archaeology Officer at Ordnance Survey, in order to assess his contribution to the development of field archaeology in England. Crawford worked at OS from the early 1920s until his retirement at the end of the Second World War. She would be grateful for any information regarding both his work and the man himself, and can be contacted at the Department of Archaeology, University of Southampton, Highfield, Southampton, SO17 1BJ.

Heidi has thoroughly mined the OS library (whilst working there temporarily), PRO files and has read *Said and Done*. She has found that little analysis or study seems to have been done on this subject.

A copy of Heidi's final thesis will be deposited in the Ordnance Survey library.

## Recording our Changing Landscape — a Critical Commentary

Richard Oliver

*Recording our changing landscape: the proceedings of the seminar on the future history of our landscape held at the Royal Society on 16th October 1992*, edited by Christopher Board and Peter Lawrence, is reviewed by David Kimber in Book Reviews on page 54 of this issue of *Sheetlines*.

The proceedings at the Royal Society one chilly day in October 1992 have already been noticed both in *Sheetlines*<sup>1</sup> and in some of its contemporaries, and more recently its concerns have appeared in these pages both obliquely<sup>2</sup> and overtly, in the long discussion paper in the last issue<sup>3</sup>. To discuss the matter further might seem to labour the point, but the appearance *in extenso* of the papers and discussion at the seminar justify both a recapitulation of the subject, and some consideration of possible options for the future.

The seminar proceedings consist of thirteen papers and two discussion sessions. As is often the case with seminars and symposia, the papers are of variable standards and relevance, and the inclusion of some of them by the organisers was presumably dictated as much by political and ceremonial as by practical considerations, even if we exclude Lord Strathclyde's speechwriter's offering. Rarely can so much weight of distinction to do with British cartography and allied disciplines have been gathered together in one place, and the speakers can hardly be dismissed as under-qualified, but to the critical reader the whole does not quite add up to the sum of the parts. The two most important papers are those by the Director-General of the Ordnance Survey, Professor David Rhind, and by the head Map Librarian of the British Library, Tony Campbell, and here will be found most of

what the problem is about. (I hasten to add that the problem must not be seen in terms of personalities: these are merely spokesmen for a wider point of view.) Some of the other papers offer useful supporting information, for example as to the problems of the physical preservation of digital data, but they do not substantially affect the main issue.

The nub of the matter is this: Ordnance Survey has now gone over wholly to digital production for its large-scale mapping, which is both the basic current mapping of the country, and the core of the historic record. Analogue output is at present made available on microfilm aperture cards, but Ordnance Survey cannot undertake to produce these after 1997, by which time Super-plan cover for Britain will be complete, and hard-copy 'publication' will be by *ad hoc* printouts. So far as Ordnance Survey is concerned, the only way the digital mapping can be preserved is in digital form, unless 'new money' is forthcoming for some other solution.

The legal deposit ('copyright') libraries, of which the British Library is *primus inter pares*, have hitherto received their large-scale OS mapping either in paper form or on microform aperture cards, according to how it was issued by OS. By and large they are not equipped for handling digital data. (Some idea of the 'penetration' of digital data, both in the copyright and in other libraries, can be gained from the recent papers by Tony Campbell and Chris Perkins.<sup>4</sup>) They are now faced with a problem: OS proposes to cut off the supply of hard-copy mapping.

David Rhind's response to this problem was, in effect, if not in words, 'You can have hard copy if someone other than OS pays for it'. Tony Campbell's is 'It is much simpler for the libraries to have hard copy.' The subsequent investigation which he has co-ordinated supports

<sup>1</sup> *Sheetlines* 35 (January 1993), pp 29-31.

<sup>2</sup> 'Cause for concern', *Sheetlines* 40, p.34.

<sup>3</sup> Tony Campbell, 'The future history of our landscape' (OS Information Paper 12/1994), reprinted in *Sheetlines* 41, pp 6-21.

<sup>4</sup> Perkins, 'Quality in map librarianship and documentation in the GIS age', *Cartographic Journal*, 31 (1994), pp 93-9; Tony Campbell, ...

his point; David Rhind's is supported by a cash-hungry government (of whatever colour)<sup>5</sup> seeking to eliminate the dependence of OS on a subsidy from the national exchequer, and an OS whose remit does not, at present, extend to keeping a historic digital archive.

So much for the two positions. The other papers include two (Professors Coppuck and Cherry) describing the use made of superseded OS mapping in the past, and the need to continue to do so; one (Mr Nickless) describes the possibilities for integrating by digital means a mass of formerly separate datasets; three (Mrs Tyacke, Mr Peters and Professor Lievesley) discuss archival considerations; and the remaining three discuss a digital data clearing-house in the U.S.A. (Dr Bossler), the use of grids for statistical purposes (Professor Guermond — this contribution strikes this observer as being particularly questionable, unless it be to bolster the 'digital' case), and the digital scanning of historic Swedish cadastral mapping (Mr Ottoson), which proves to be of greater relevance to British concerns than might appear at first sight.

A strong argument for retaining hard copy as the record is that it is compatible with what has been preserved in the past. Were the digital option to be adopted it would be desirable to digitise the existing paper archive, so that the libraries would be faced with two costs: of installing equipment to handle digital mapping, and of digitising their existing holdings. These two merit further discussion.

One of the advantages of digital mapping is that it can be used in conjunction with other data in Geographic Information Systems (GIS); GIS may be characterised as the whole amounting to more than the sum of the parts. However, such digital data must be 'intelligent', and that means

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<sup>5</sup> Whilst *Sheetlines* endeavours to avoid party politics, I think it a reasonable prediction rather than an inflammatory opinion, that any more 'leftward' successor to the present Conservative government will be so anxious for all the money that it can find for social spending that the present policy of seeking 'full cost recovery' for OS activities will continue. That is not to say, of course, that those in a position to do so should not urge a change in this policy; but I am sceptical of its success, regardless of the colour of the government of the day.

vector data, which is expensive: whereas 'unintelligent' raster data can be obtained by largely automated scanning (as has been applied to OS 1:10,000 and 1:50,000 mapping)<sup>6</sup>, vector data effectively has to be obtained by 'redrawing' the map, which is labour-intensive. Some idea of the potential expense can be gauged by there being no immediate plans to digitise the OS's best selling map, the 1:50,000: it was redrawn by analogue means in 1972-88, and there is not enough interest in 1:50,000 digital data to justify redrawing so soon. Any dreams of a vector-digital OS County Series 1:2500 which might be used for historical GIS work will remain dreams, but the superseded OS Landline data, which has replaced 'hard copy', publication offers the possibility of GIS use in the future. Also, it is possible to overlay both vector data on raster, and raster on raster, thereby facilitating comparative work. Retaining superseded digital data therefore offers practical advantages for future historical research.

The digitising of historic mapping was described by Mr Ottoson, who noted that problems which would be encountered included varying sheet sizes, colour, and planimetric distortion, which would affect relating older mapping to a modern grid system. In the subsequent discussion, Professor Rhind pointed out that, were this solution to be adopted in Britain, the inputting would be more straightforward, as analogue OS mapping was mostly in monochrome and in regular sheets. Agreed, but the planimetric distortions would almost certainly result in discrepancies between County Series, analogue National Grid and digital National Grid mapping, which might be due to one or more of several causes: paper distortion; survey error, including possible difficulties in the 'replotted counties'; drawing or digitising error; or change on the ground. It could be argued that few 'historical' users need to make precise measurements, and that none of the potential errors listed here will make much difference to measurements within an area of 100 metres square or so, which is the only sort of precise

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<sup>6</sup> For a description of scanning applied to the OS 1:50,000 *Landranger* map see *Sheetlines* 35, pp 32-3.

measurement likely to be called for; but then yet another difficulty emerges, and which brings the problem of Britain closer to that of Sweden. By number — at least 500,000 sheets<sup>7</sup> — superseded OS mapping may be the most important, but it is not the only historic mapping which may have to be considered. 11,785 tithe maps, mostly of 1837-51, cover 75 per cent of the area of England and Wales, and this cover is partly complemented and partly duplicated by at least 5000 enclosure maps; say 17,000 maps all told, varying in size from 25 cm square to such as the enclosure map of Egton, in the North Riding of Yorkshire, of 1854, which is in three sections, measuring 308 by 291 cm, 281 by 279 cm, and 189 by 296 cm respectively.<sup>8</sup> These maps are a riot of non-standardisation. The raster-scanning of historic OS mapping might well lead to a demand for the tithe, enclosure, parochial assessment, drainage and Board of Health mapping<sup>9</sup> to be scanned as well.

<sup>7</sup> This is made up of: about 51,500 1:2500 County Series sheets, of which about half were published in two, most of the rest in three, and a few in up to six editions; about 6,000 1:1056, 1:528 and 1:500 of urban areas; about 15,000 1:10,560 County Series sheets, mostly published in three or four editions; about 56,000 1:1250 National Grid sheets, published in an average of 3 to 4 editions each; about 180,000 1:2500 National Grid sheets, published in an average of say 1.5 editions each; and about 10,000 1:10,560 and 1:10,000 sheets, published in an average of 3 editions each. These estimates are based on investigations of OS large-scale mapping for which preliminary results were published in: Richard Oliver, 'The Ordnance Survey 1:1250 National Grid surveys: a preliminary list', *Sheetlines* 24 (December 1989), 5-11, and Richard Oliver, 'The Ordnance Survey 1:2500 National Grid plans', *Sheetlines* 29 (April 1991), 17-24. They include some derived mapping, mostly at 1:10,560 or 1:10,000, but as this derived mapping is often called for by users who regard the basic mapping as unnecessarily detailed for their purpose, it should not be omitted from the calculations. It is probably no more than 5 per cent of the total.

<sup>8</sup> 'Thank goodness, he doesn't want Egton', was the reaction of an archivist when the writer was negotiating the production of some originals of Yorkshire enclosure maps. The Public Record Office copy is at MAF 1/1130. I have omitted from the calculation the written tithe apportionments and enclosure awards, which are an integral part of these 'cadastral' surveys, to say nothing of some 40,000 Land Valuation maps.

<sup>9</sup> Enclosure and parochial assessment mapping is being studied by the writer, under the direction of Professor

Even supposing these problems to be overcome (and they would be problems enough even were the government of the day less concerned with 'cost recovery' than at present), there remains two further groups of difficulty: the first, with computer hardware and software; and the second, with the users.

Anyone who has had anything to do with computers will know that there is nothing so inconstant as hardware and software, and that any apparently attractive 'computer solution' immediately creates the question: *How satisfactory will this be in a few years' time?* Even humble word-processing software gets out of date very quickly, and the machines on which to use it decrease in size and price, even as they increase in sophistication almost by the week. Whilst it is obvious that all this development must reach a point where minaturisation of the hardware and elaboration of the software cannot be pushed further, and that the only further development will be to iron out the differences between the various programs and machines, there is no evidence that we are anywhere near this most desirable point. Further, though digital data in itself does not deteriorate when copied, which is a mighty argument in its favour, yet most of the various storage media are liable to long-term physical deterioration. Thus, supposing the 'all-digital' option of preserving superseded OS data and scanning pre-digital mapping were to be pursued, there would still be the problem that periodically the data would have to be transferred from one software package to another — and as more data were added the task would be greater each time — as well as from one location to another. Possibly the only immediate good to come out of this would be that whichever libraries held superseded OS data would find it imperative to adopt common software and therefore very similar hardware.

The users include both those who have 'gone digital' or expect to do so, and those who have

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Roger Kain: it is as yet unclear how many parochial assessment maps survive, and whether a possible total of 1500 or more may prove to be largely the result of double-counting. Probably no more than 250 to 300 are to be found, even if we include drainage maps.

not and won't. Professor Rhind has been fond of saying 'I have seen the future and it is digital', but, 'out there', there are many who disagree, as is clear from the responses collated by Tony Campbell. The reasons for this are several, but finance is probably the most important, added to a certain conservatism amongst some, and inability to get along with certain technology amongst others. Finance may be taken to include both the very high costs of hardware and software (OS software pricing rules out the acquisition of OS digital data even by university libraries) and the expectation that whatever is invested in now will be hopelessly out of date in five or ten years' time. In his important recent paper, Chris Perkins has drawn attention to the possibility in the future of a few 'digital' map libraries which will be able to acquire and handle anything that is offered, alongside many non-digital ones, with the latter acquiring less and less new material as the proportion available only in digital form increases. Anyone who thinks that the future is *really* digital may have cause for thought in reading Mr Perkins, cause for doubt in using Mr Campbell's library (and the other legal deposit libraries), and cause for utter disbelief on entering any local record office.

On the evidence to date, it appears inescapable that the only sensible way forward is to continue to store superseded digital data — whether it is held by Ordnance Survey, the Public Record Office or someone else is a trivial detail — and to continue to make available to the legal deposit libraries microform aperture cards as each new Superplan edition is 'published'. This will involve some capital expenditure, in

renewing the equipment which produces these cards, and some recurrent expenditure in conserving the digital data, but it is clear that a situation has arisen in which preserving superseded mapping data is going to involve a greater cost both to OS and to the libraries than it has in the past. Otherwise, the alternatives are three: to produce archive 'hard copy' and then to throw away the superseded digital data, which, in view of the great cost of its inputting, would not be a wise use of money, particularly if, with the development of computers, more libraries are in a position to handle such data in the future; to store the digital data in a specialist repository, and leave pre- and non-digital mapping to the libraries, which would make comparisons of digital and non-digital mapping extremely difficult; or to spend an uncertain but certainly large sum of money on converting existing OS paper mapping to some digital form.

One further consideration which has not been mentioned in the debate is ecological. Which consumes most renewable and non-renewable resources: digital mapping, stored on disks and displayed on computers made mostly from non-renewable fossil materials; microfiche aperture cards, which call for electricity for satisfactory viewing; or 'hard copy' on paper, which can be produced from renewable materials?

At the risk of being proved wrong, and judged as slipping into even greater eccentricity with advancing age, I venture to suggest that digital mapping and all that flows from it may yet prove to be a transitory phenomenon, and more a sign of the past than of the future.

### **An Anomalous Map Extract**

The 1944 reprint of John Bygott's *An Introduction to Mapwork and Practical Geography* contains seven extracts of Ordnance Survey maps. Each bears the note *Ordnance Survey 1934* and the imprint C.R.8938 5000/42 L.R.. One of these extracts is taken from Scottish 'Popular' One-inch sheet 45 and depicts an area around

Banchory. It reproduces all the plates from the original, apparently unaltered from their 1929 state, but displays, in addition, fine brown hachures. Ian O'Brien asks if there were serious thoughts in 1934 of re-issuing sheets of the Scottish 'Popular' in a 'Relief Edition'?

## New maps

### *Ordnance Survey of Great Britain*

New publications between 1 September 1994 and 31 January 1995 included:

#### *Conventional paper maps:*

1:50,000 *Landranger* (Second Series):

1, B (10/94, revised 1993)	2, B (9/94; revised 1993)	5, A1 (12/94)
8, A2 (12/94)	29, A1 (10/94)	70, A3 (9/94)
88, B2 (9/94)	112, B2 (12/94)	140, B2 (12/94)
144, A4 (1/95)	156, A4 (1/95)	157, B2 (12/94: outline)
171, B1 (10/94)	177, C3 (1/95)	179, B1 (10/94)
181, B (12/94; revised 1993)	201, B1 (9/94).	

The following revision dates for new editions were omitted from Sheetlines 40 or 41:

12, B (1993); 32, B (1992); 33, B (1992); 72, B (1992); 79, B, (1992); 89, B (1992); 130, B (1992).

1:25,000 *Pathfinder* (Second Series):

'First publication': 1093 (SP 60/61). [This replaces the western halves of former *Pathfinders* 1093 (SP 61/71) and 1117 (SP 60/70), the eastern halves of which are now covered by *Explorer 2, Chiltern Hills North*.]

The OS publication report for January 1995 announces four further *Explorer* maps, to be published in the spring: 6, *Cannock Chase*; 7, *Land's End*; 8, *The Lizard*; and 9, *Bodmin Moor*. The 'special' *Pathfinder* 1126, *Gower*, is to be republished as *Explorer* 10 in the autumn.

Five *Outdoor Leisure* maps are to be republished between April and September 1995 with extended sheet lines: 1, *Peak District - Dark Peak*; 10, *Yorkshire Dales - Southern Area*; 29, *South Devon*; 21, *South Pennines*; 31, *North Pennines (Teesdale)*.

Five wholly new *Outdoor Leisure* sheets will be published in the autumn of 1995, covering the Pembrokeshire Coast National Park, the Northumberland National Park and the Howgill Fells. Those who advocate the 'large sheet' 1:25,000 will welcome these developments, though as extensions of areas mapped will presumably involve an increase in back-to-back mapping, joy is not unrestrained!

*Richard Oliver*

The *Travelmaster* series, 1:250,000, published 1993

The *Travelmaster* series was launched in the spring of 1993 and puffed in *OS Publication News* issue 5. Some of the claims are a little fanciful, notably those of a place names index and a scale of 1:250,000 for the whole of Great Britain.

Publication of the nine sheets comprising this series in 1993 provides a new departure for Ordnance Survey. It is the first series or set which deliberately incorporates maps of radically different scales: the 1:250,000 and 1:625,000. By bringing together a package of maps for the motorist, combining the *Routeplanner* and the eight "routefollowers" covering the whole of Great Britain, OS has rendered a service to a

large group of users. Marketed under the new product name, all nine maps are packaged in similar format, Bender folded to 13.5cm by 24cm with cyan panels boldly lettered with sheet names in yellow and outlined in red. A large panel bears a coloured photograph representing a major tourist attraction in each region. But the *Routeplanner* map displays the new Dartford Bridge, symbolising modern road links of an inter-regional kind. Hardly a car can be seen in these pictures; one travels by car to reach places where the view can exclude them! Once again the motor cycle returns to this small scale map in the form of a logo on the front cover in a group of logos which includes cars and camper vans. If

uniform packaging unites the Quarter-million maps and the 1:625,000, their other attributes deserve separate treatment when details are reviewed.

The dimensions of the *Routeplanner* sheet are just over 125cm by about 94cm, doubled to depict the northern half of Britain on the reverse side. Unlike its predecessor, when the map is

unfolded you can see the top right-hand panel, *the right way up*. All the sheets are folded thus except for 3, *Western Scotland and the Western Isles*. That sheet is the same size as the others but is printed in portrait rather than landscape format. As with the *Routemaster* series, which the *Travelmaster* replaces, considerable effort and ingenuity were employed in planning sensible sheetlines. Despite the sheets being slightly smaller in the *Travelmaster* series OS has managed to reduce the number of 1:250,000 maps by one by eliminating more over-laps. The largest of these allows London to appear in the centre of sheet 9 and on the bottom of sheet 6. The other large overlap is between sheet 3 and maps 2 and 4 which cover the rest of Scotland. The awkwardness of Orkney and Shetland appearing on insets of the Western Isles on the *Routemaster* has now been

rectified. They are included on insets wedged in the North Sea off Fraserburgh, but at a reduced scale (1:400,000). This sacrifice is worthwhile because sheet 3 now covers a much more useful area than before. Although no doubt the Orcadians and Shetlanders will object to being reduced in size, at least they can now read their place-names because these have been replotted. A comparison of the northern end of the mainland on the main map and the inset shows how some physical names have been eliminated on the inset to reduce clutter. For extra detail of Orkney and Shetland, users will have to resort to the *Motoring Atlas*, derived from the same mapping.

Rejigging of the sheetlines for the *Travelmaster* series has removed some of the irritations of the previous *Routemaster* sheetlines. Sheet 4, for example, now includes the whole of SW Scotland instead of leaving the tips of the peninsulas projecting into the Solway Firth on an English sheet (sheet 5). Only those interested in Islay might expect to have the island inset into sheet 4 instead of sheet 3 *Western Scotland and the Western Isles*. Is there any reason why Islay should appear only on sheet 3. Could it not be squeezed into the SW corner of sheet 4 instead of the coast of Northern Ireland? For the most part extrusions are not frequent, but when they occur are very useful.

There are many similarities between the Quarter-million maps and those which I reviewed in the first digital *Motoring Atlas in Sheetlines 29*, but some improvements. There are some significant changes in colour made after a consultation exercise was carried out with users. Several options were put forward to OS consultative committees as appendices to Information Paper 9 of 1991, *Ordnance Survey Routemaster Map Series — a New Direction*. Although the depiction of the relief varied on each, the main difference were the ways in which built-up areas and foreshore detail were handled. These are summarised below:

- A. built-up areas — grey screen;
- foreshore — light orange screen;
- relief — white below 200 feet, increasing shades of yellow and orange brown above 200 feet;

- hill shading — medium grey screen;
- woodland — screened green, at about the same density as the hill-shading.

- B. built-up areas — yellow;
- foreshore — orange-yellow;
- relief — white below 200 feet, increasingly deeper shades of yellow and orange above 200 feet, but all layers look lighter than A;
- hill shading — light grey screen;
- woodland — light screened green, but looking darker than the hill-shading.

- C. built-up areas — yellow;
- foreshore — coarse manually produced dot pattern, presumably to indicate what a coarse grey screen would look like;
- relief — pale green screen below 200 feet, orange-yellow layers above 200 feet with which the yellow built up areas tend to merge;
- hill shading — rather heavy grey;
- woodland — darker green screen.

They were presented on a sample map of mid Lancashire on A4 sheets. When the published version is compared with the trials, it is clear that scheme A has been used. The hill-shading around the Lancashire “cotton towns” can sometimes be confused for built-up areas except that the black boundary of the latter comes to the rescue. Hill-shading is really successful only in uncluttered hilly, rural areas. In the mountainous regions hill-shading has a useful role, providing some continuity for relief features, since the coloured relief suppressed where there is woodland. Fortunately forests generally avoid the highest ground, or at least do not completely blanket it, and the loss of layer colours under them is not a problem. The green used for woods on the *Travelmasters* is slightly lighter than on the *Routemasters* which also helps.

For the traveller and tourist, legend and tourist information are kept away from the map itself an all but two of the Quarter-million sheets. The standard panel of conventional signs, mileage table and details of the Landranger sheets for the areas is supplemented by an index of places. On casting my eye down the third page of this index, I encountered two places called Braithwaite, Cumb.. Thinking it would be more

useful to add the nearest town to at least one of them, I discovered that one was Branthwaite, not Braithwaite. I suppose that was just bad luck. It would be useful if features of interest to the tourist was also included in the index, e.g. Scotney Castle, Kent, a picture of which recently figured on a calendar and none of us knew where it was. Not in the index, it turns out to be a well known garden marked by a symbol, near Lamberhurst. A search for other castles and abbeys of greater antiquity revealed that the likes of Mancaster Castle, Naworth Castle and Jervaulx Abbey are not listed in the indexes. Does the Ordnance Survey assume that tourist attractions can be more easily found? This may apply to Stonehenge, but surely not to many other potential destinations such as Knole or Maiden Castle, whose extensive earthworks are incidentally marked by the regulation castle symbol!

Road information is translated into French and German, but as usual no other conventional signs are treated thus. To be consistent, surely the explanation of primary Routes ought also to appear in French and German. Road detail is better than on the 1992 Motoring Atlas. Spot checks on the configuration of the road depiction in Lincolnshire, Humberside and North Yorkshire on sheet 5 reveal the restoration of many sharp-angled corners instead of the smooth by-pass-like curves I complained about before. It appears that the digital map is capable of manipulation by changing the approach to generalisation. Similar, though less obvious, improvements can be seen on sheet 9. On the whole, road depiction should satisfy the cross country traveller; I managed to negotiate the suburbs of Swindon on a foggy day when I missed my exit from the M4 to Cirencester, which with the help of some road signs and the *Travelmaster* which told me what to expect by road classes and roundabouts. Road colours now conform with those in the atlases and on the *Routeplanner* except for C class and unclassified roads. For those accustomed to the rather larger lettering used on the Motoring Atlas, whose maps are larger scale, place names may be rather harder to read. Adoption of grey for built-up areas forced the maps' designers to clear detail

around all place names and tourist symbols which lie above. While this is good for the tourist, it entails sacrificing continuity of detail, a difficult choice. However, the detail in the digital map preserves the integrity of the road detail which could be plotted separately if required. This does not help the many users who wish or who are condemned to use analogue maps. Random scanning of the different sheets reveals that most settlements are named. Nearly all can be easily reached, but a few puzzles remain, such as Denham Castle east of Newmarket which has no road leading to it, and seems grossly exaggerated in size. I am reminded of the insensitive digitising of crofter settlement in the Highlands and Islands of Scotland which is carried into sheets 2 and 3, unchanged from the ribbon development noted in my review of the 1991 atlas. However, many changes have been made to Gaelic place names, sometimes replacing English forms altogether. I am not competent to judge whether these changes are for the better.

Sheet 1, the *Routeplanner* map, is much larger than its predecessor, published in 1991 and coded BB. The new one is edition A and now has ten insets of urban areas, the new ones being Perth, Aberdeen and Inverness, which complete the row of large-scale urban maps on the right hand side of the sheet. London now comprises only the central portion of the metropolis. The new insets are at 1:125,000, while the original ones stay at 1:200,000. I liked the way in which the index to places was divided so that those occurring on the northern portion were on that part of the map and likewise for the southern part. A few users who genuinely don't know where a place is, or are unsure whether it lies north or south of northing 50, will just have to look at both indexes. The matrix of road distances now usefully appears on both sides. Otherwise supporting information remains more or less the same as on the 1991 *Routeplanner*.

Turning to the face of the map, the user will see that the colour scheme for roads adopted on the 1:250,000 maps also applies to the 1:625,000, primary routes have turned green. Urban areas are screened grey making the roads stand out more clearly because they are not affected as they

were by the yellow. Probably the most valuable feature is the distinction between B roads and C-class and others by different colours (red-brown and bronze), when they had all been red-brown on the 1991 map. One can more easily plan a route following B roads with greater certainty than previously. They also have larger numbers in distinctive italics.

All the lettering has been re-edited. Although place-names are slightly smaller, their rather mechanical fonts hitherto employed now look much more like conventional map lettering. This enables names to be more compact and thus to refer more clearly to specific places and to emphasise the more important places by solid black, bold style and natural features and regions in italic style. Since, after colour, lettering usually gives character to any map, this is probably the most fundamental change, helping to justify the map's designation as new rather than as another edition of the old Ten-Mile Map. Many will wish that the minor places were printed in a slightly darker grey.

The Orkneys are now where they should be rather than on an inset, their usual fate with the Shetlands, which are found in the only inset at

1:625,000. The seas around Britain are now pleasantly uncluttered, so that with two copies one could make a useful wall map. How useful it would be for commercial drivers to have post code overprint on a special edition. After all, in France, the Institut Géographique National produces several versions of its 1:1 million map for specific categories of user. To see what the "outline edition" looks like, get hold of the index to 1:10,000 and 1:10,560 scale maps published in 1994. It also includes the index of places.

In summary, the set of maps linking route planning and following is a welcome addition to the OS list of publications. The obvious next move would be to rename the Motoring Atlas the *Travelmaster* Atlas. Some users would wish to use the *Routeplanner* in conjunction with it. The advertisement for the new series hinted that one could find the most scenic routes on the maps. Perhaps the updated edition will attempt to indicate which routes are scenic. It would surely be feasible to fold a proportion of the *Routeplanner* maps so that northern Britain is immediately visible on the outside of the main horizontal fold. At the time of writing the full set of nine maps costs £35.91.

Chris Board

#### *Sundries:*

*Roman Britain* (9/94: stated to be a 'partial revision' of the 1978 edition of this map).

*North York Moors* (1/95), 1:63,360 Tourist Map

#### *Ordnance Survey Map price increases*

Ordnance Survey raised some of its prices on 1 November 1994; the prices of the principal conventional paper maps are now as follows: 1:2500: 1 x 1 km, £25:00; 2 x 1 km, £50:00; 1:10,000 and 1:10,560: £34:00; 1:25,000 *Outdoor Leisure*: £5:25; 1:25,000 *Pathfinder*, £3:95; 1:25,000 *Explorer*, £4:50; 1:50,000 *Landranger*, coloured, £4:50, in outline (flat only) £18:00; 1:100,000 county base maps (flat, England and Wales only), £10:40; 1:250,000 and 1:625,000 *Travelmaster*, coloured, £3:99, in outline (flat only) £18:00.

The cheapest Superplan output at 1:1250 and 1:2500 is a straight printout from microfilm, by National Grid sheet lines (0.5 km square and 1 km square respectively): a single printout at either scale costs £30:00, but further copies of the same printout cost only £5:00 more.

It may be noted that the 1:2500 'Published Mapping' only remains available for those areas not yet covered by Superplan. Remaining stocks of 'published' sheets at these scales in Superplan areas are treated as 'Old Maps', which can be supplied either on paper or on film. Current (from 1 November 1994) prices (paper/film) for 'old maps' are as follows: all County Series (1:500 to 1:10,560), £29:00/£40:00; 1:1250 NG and 1:2500 NG, 1 x 1 km, £31:00/£43:00; 1:2500 NG, 2 x 1 km, £50:00/£64:00; 1:10,000 and 1:10,560 NG, £36:00/£50:00; 1:25,000 and all smaller scales, £29:00/£40:00.

### ***The Godfrey Edition***

Between 2 December 1994 and 7 March 1995 coverage was extended to the following places: Machynlleth; Omagh; Orpington; Reading; Rugby; Southend-on-Sea; Tring; Whitefield and Besses o' the' Barn (Lancashire).

### ***Stockport Heritage Maps.***

Six maps, £2:00 each, published by Stockport Libraries, 1993-4:

No.1, *Edgeley, Shaw Heath & Heaviley* [Cheshire Sheet 19.3, Edition of 1910; no ISBN].

No.2, *Hazel Grove* [Cheshire Sheet 19.8, first edition, 1875; no ISBN]

No.3, *Stockport* [Cheshire Sheet 10.15, first edition, 1874; ISBN 0-905164-77-6]

No.4, *Cheadle* [Cheshire Sheet 19.2, first edition, 1874; ISBN 0-905164-82-2]

No.5, *Heaton Mersey* [Cheshire Sheet 14, Edition of 1910; ISBN 0-905164-87-3]

No.6, *Marple* [Lancashire Sheet 112.15, Edition of 1922; ISBN 0-905164-92-X]

When is a Godfrey Edition not a Godfrey Edition? When it's a Stockport Heritage Map. Simple, really.

As there are now nearly eight hundred 'Godfreys', including a large number for Manchester and adjoining districts, it is not difficult to find them. The surprising thing is that the excellent example has not been more widely emulated: the only example I can think of is the Crouch End map of 1865, which is published by a local history society, but is also obtainable through Alan Godfrey. Other 1:2500 reissues have taken a different form, for example the three issued by Clywd County Council which were noticed in *Sheetlines* 41.

A 'Godfrey' or a 'Godfrey-lookalike' is characterised by a 1:2500 County Series original which is reduced in scale so that it fits onto an A2 sheet which is then Bender-folded five by two. An authentic Godfrey has the map on one side of the sheet, reduced to about 1:4340 [about 14.6 inches to 1 mile] and an integral cover with an vintage photograph, an index to adjoining sheets, historical notes, and sometimes an extract from another map on the back: one of the few successful examples of back-to-back mapping, and altogether natty.

Now, the Stockport maps imitate the Godfrey formula to a point: they reduce the map, have an integral cover (a striking purple) with a vintage photo, some historical notes, are A2 size, and are Bender-folded five by two. Nay, they go further. 'This map is... reduced in scale to approximately 15 inches to the mile.... Maps of this kind are invaluable to teachers and their

pupils, genealogists, local historians, and they carry a wealth of historic detail of great interest to all local residents. Here you can see your own locality, or perhaps even your own house, as it was eighty years ago.' Apart from a fairly direct pinch of wording as characteristic of Godfrey mapping as the citing of the authority of the Min. of Ag. and Fish. was to OS map rear covers for many years, here lies the first difference. The Stockport maps are single-sided, and they fit both a standard county 1:2500 and an integral cover onto the same A2 side by reducing the maps to something which is a strange approximation to 15 inches to 1 mile, varying as it does between 11.3 and 11.6 inches to 1 mile (about 1:5608 to 1:5462). What would otherwise be rather embarrassing white space at the top of the map has been filled by a title, so that STOCKPORT and HAZEL GROVE scream out at us. The historical notes are fitted onto the rear 'cover' in the space left after the standard blurb.

The reproduction quality of the maps is much the same as for the 'real' 'Godfreys', with unequal reproduction of stipple building infill, and the 1:2500 drawing style is generally equal to the reduction without strain or loss of minor detail. They will no doubt commend themselves to Stockporters (or whatever they are called), but at £2:00 they are by no means as good a buy as authentic Godfreys, and there are some flaws in the originals which ought to have been duffed on the negatives, notably an ink blot in field 214 on

Sheet 19.8. Nonetheless, as their publication may delay authentic Godfrey coverage of Stockport, wavering purchasers might perhaps better waver towards purchase.

Incidentally, two of the sheets (10.15 and 19.2) carry headings 'First Edition.1872', which appear to have been added by stamping after the sheets had been printed: I have not noticed this practice before, but no doubt readers will flood *Sheetlines* with numerous other instances. This is rather curious, as the footnotes bottom left indicate that these sheets were surveyed in 1872 and published in 1874, though in fact the 'survey date' will be that at which the fair-drawn sheets were certified as fit for publication, and the 'situation date' may well be 1871 rather than

1872. One other practice which I have noted elsewhere, and of which there is an example on the Wrexham sheet mentioned in Sheetlines 41, is the alteration by post-printing stamping of the description of detached areas of townships and parishes which were merged into adjoining districts in boundary rationalisations effected after the sheet had first been published. There are two examples of such changes on these sheets, on 10.15 where 'Formerly' has been added to 'Cheadle Moseley (Detached No.3)', and on 19.8 where 'Handforth cum Bosden (Det.)' has been supplemented by 'Now Bosden 1878', but these changes seem to have been effected on the zinc plates from which the maps were printed, rather than afterwards.

*Richard Oliver*

### ***Ordnance Survey of Ireland***

OSI small-scale maps are now distributed outside Ireland by Ordnance Survey of Great Britain, and appear in the latest OSGB catalogues and price-lists.

The following 1:50,000 *Discovery* series sheets have recently been published: 'First edition': Sheets 22, 23, 66, 83, 84, 85.

Although these follow the general style of other recent (1993–4) sheets, being layer-tinted and in the purple pictorial covers, the design of the maps continues to evolve. Unnamed antiquities are described in English (Irish was tried on Sheet 70), but on all but Sheet 85 antiquity names now appear in magenta, rather than (synthetic) red, (the change is a very minor one). As well as the 'official' youth hostels run by An Oige (the Irish YHA), 'independent' hostels are shown on Sheets 66, 84 and 85, by placing the customary red triangle inside a green circle. (There are 'independent' hostels in Britain, too, but at present only the 'official' YHA hostels are shown on OSGB maps.) The note that the series is to be completed in six or seven years is now omitted from the footnotes, but the four landscape-shaped sheets (66, 83-5) retain the erroneous 'National

primary/secondary' description for roads with pecked green infill: it should, of course, be 'National secondary'.

An index published by OSI, and dated January 1995, indicates that ten sheets — 44, 45, 50, 51, 57, 62, 63, 67, 74, 77 — are to be published in 1995<sup>1</sup>. 36 more sheets will then remain to complete Ireland at this scale. Incidentally, the four remaining 'non-layered' sheets — 56, 71, 78, 79 — are being offered *in Ireland* for £IR 2:55, presumably so as to clear stocks to enable *Discoveries* to be issued: those wishing for a fairly complete collection of OSI 1:50,000 styles are therefore urged to acquire 56, 78 and either 71 or 79 as soon as possible.

<sup>1</sup> I am indebted to Rod Sladen for drawing my attention to this.

*Cork City*, 1:15,000, 6th Edition: Dublin, Ordnance Survey, 1994: price £4:25 in Britain.

This covers the whole of the built-up area of Cork, and extends from 162 to 174 km east and from 67 km to 76 km north on the Irish National

Grid. I do not have the fifth edition, but compared with the fourth edition of 1976, the present map has been wholly redrawn: it is unclear

whether by analogue or digital means. The fourth edition was in the straightforward style favoured by OSI for its large-scale mapping, and the inclusion of building blocks, field boundaries, tree symbols for woodland and the use of lighter and darker tints for tidal and non-tidal water (not hinted at in the legend) betrayed its ‘cadastral’ derivation from 1:10,560 or 1:10,000 mapping. The new map retains the out-lines of buildings, but dispenses with the field boundaries and distinction of tidal water, and shows ‘parks, ornamental grounds, golf courses etc.’ in ‘dark green’ (synthetic: the map is printed in ‘process colours’). Both maps show bus routes; the new one adds one-way streets and National Road Numbers. Both are obliged to resort to numbers only for smaller streets, the names of which have to be sought in the accompanying street index. Roads are now cased ‘dark red’ (if bus routes) or black. The fourth edition had a separate hinged card cover; the new one has an integral cover, with the same design front and back.

Overall, this is a very pleasant map to look at, and one wishes that the general aesthetic

standard of street maps in Britain were as good. However, there are a few criticisms. First, whereas the old map numbered the grid at 1 km intervals and used four-figure grid references in the index, the new one gives only the full coordinates for sheet corners, and uses alpha-numeric indexing. Whilst it is apparent from mass-market mapping that the general public prefers alpha-numeric to grid referencing, it would still be a convenience to the grid-minded minority to include the grid figures at 1km intervals. Second, an eight-by-three semi-Bender fold is used, for a map measuring 96 x 67 cm; the result is unwieldy, and awkward, to say no more, to use in a car. Third, the index remains in booklet form, now pasted to the blank bottom-right Bender panel, (rather than pasted inside the hinged cover), and liable to flap open and make a nuisance of itself at the least provocation. It would have been possible to exploit to possibilities of the semi-Bender fold by printing the index on the back, which would surely be cheaper than producing, stapling and pasting a separate booklet.

*Richard Oliver*

#### *A ramble just discovered — a confession*

Richard Oliver contritely confesses ... “Oh dear! In *Sheetlines* 40, I said that Ordnance Survey of Ireland 1:50,000 Sheet 78 in its *Rambler* guise was a one-off. In fact the *Rambler* title also appears on the covers of the preliminary editions of Sheets 16, 25 and 70. My apologies to OSI, readers of *Sheetlines* and everyone else.”

#### ***Ordnance Survey of Northern Ireland***

*New Catalogue: Half-inch, One-inch and 1:100,000 maps of Northern Ireland*

The Ordnance Survey of Northern Ireland have produced their first catalogue for some years. Much of it is taken up with large-scale mapping, familiar current small-scale mapping, and a range of small-scale administrative maps, including 1974 and 1984 local government district maps (both groups mostly at 1:63,360, with supplementary 1:25,000 and 1:10,000 mapping), and 1992 local government district maps (mostly 1:70,000 and 1:10,000). Three other groups of maps call for comment.

First, although replacement by the 1:50,000 was completed in 1985, some sheets of the One-inch Third Series are still available at £3:00 each:

2, 4, 5, 6, 7 and 8 in colour, and 1, 2, 4, 7, 8 and 9 in outline. The index on p.34 of the catalogue rather unhelpfully omits sheet numbers!

No index at all is provided for the Half-inch Second Series; Sheet 1 is now out of print, and the others will not be reprinted when stocks are exhausted. According to the catalogue, ‘The series is no longer being maintained in an up-to-date condition’: in fact, there have been no ‘corrected reprints’ since initial publication in 1968-70, and the copies of the sheets now on sale appear to have been produced by photographing or scanning ordinary sales copies, presumably to minimise costs.

The Half-inch is to be replaced by a new 1:100,000 series, of which Sheet 4, *South-East Ulster* is to be published later in 1995, and the other three over the next two years. Each sheet will cover an area 110 x 75 kilometres, and carry a 1 km grid. The sheet lines are similar to those of the Half-inch Second Series (the sheets of which cover 120 x 80 km on the ground), but have been moved slightly to accommodate the smaller sheet size. There is apparently already a 1:100,000 of Northern Ireland produced by the military, but it does not meet the criteria for an

all-Ireland series. One hopes that this example will be emulated in Britain; one fears that it will not.

The 1:50,000 index on p.35 of the catalogue shows the three 'extra' 1:50,000 sheets, 34A, 35A and 36A. 36A was published in 1993 and reviewed in *Sheetlines* 40 (p.22); a telephone enquiry to OSNI produced the answer that 34A and 35A have been 'shelved'. No doubt readers of *Sheetlines* would be interested to learn more about this strange episode: is any mole willing to oblige?!

(Catalogue is obtainable free from: Ordnance Survey of Northern Ireland, Colby House, Stranmillis Court, Belfast, BT9 5BJ, who can also supply maps by post.)

*Richard Oliver*

## Book Reviews

Helen Wallis and Anita McConnell, *Historians' Guide to Early British Maps: a Guide to the location of pre-1900 maps of the British Isles preserved in the United Kingdom and Ireland* (Royal Historical Society Guides and Handbooks, No. 18), London, Royal Historical Society, 1994. ISBN 0-86193-141-6, pp ix, 465, 24 cm, hardback, £ 29.95.

This book has been many years in the making, and, with the death of Dr Wallis just over two months after its official launch, was published none too soon. It consists of twenty-five short essays on various categories of pre-1900 British and Irish maps, with about half the authors drawn from the Charles Close Society (though fewer write on OS or related matters!), followed by entries for about 400 libraries, record offices and other collections with maps of potential interest to historians, which give details of addresses, the need or otherwise for appointments, and summaries of the types of mapping held.

The introductory essays are very variable in standard; for example, some strange things are said about the OS and land-use mapping, and it is hard to imagine anyone buying the book for this first section. The second section is a different matter, and draws attention to a quite staggering range of collections, including a few in private hands, such as that at Longleat. It probably cuts a lot of ground from under the third edition of the British Cartographic Society's *Directory of U.K. map collections*, which I understand to be in an

advanced state of preparation, but it does not have the field to itself. I don't understand why a cut-off date of 1900 is still regarded as acceptable: the practice was introduced, I believe, by Sir George Fordham, but as he was writing in the 1900s he had a good excuse. As a result there is no mention of the 1910 Land Valuation mapping, or 'Lloyd George Domesday', notwithstanding that these maps are increasingly widely consulted, nor of the National Farm Survey of 1941-3. A cut-off date of 1945 would have entailed little extra work, but would have brought the scope of the book far closer to the reality in the repositories. A greater difficulty is that not every possible collection is included: perhaps the biggest omission is the Humberside County Record Office at Beverley, although the much smaller office across the river at Grimsby is included, which throws the gap into relief. I understand that these entries in the second section of the book were based on questionnaires sent to the various institutions, and that not all replied: nonetheless, the omission of Beverley is so serious that the value of the book is seriously reduced.

In mitigation, it must be recorded that at the crucial stage of preparation one of the editors was smitten with cancer, and the other was on a limited-term contract, and that in such circumstances there are limits to what can be done. Nonetheless *in its present form* the book is more a monument to tenacity in the face of a grim challenge than an aid to researchers. However, I understand that the Royal Historical Society proposes to maintain an interleaved copy in

which corrections will be noted, and that there is a possibility of a paperback edition. If the various blemishes can be sorted out, Beverley included, and the end result made available at a more modest price, then your reviewer is unlikely to have cause for further complaint. No doubt many institutions have already purchased their copies: all those who have not are urged to wait, in case an improved version is published.

*Richard Oliver*

Captain H. Riall Sankey, *The Maps of the Ordnance Survey*, with an Introduction by Ian Mumford, London, 1995, Charles Close Society, ISBN 1 870598 148, £ 5.00.

This is a reprint of complete pages containing a series of articles on the processes involved in the printing of Ordnance maps and plans and which appeared in 1888 in volume 95 of *Engineering*, one of the two news magazines of the engineering world and therefore aimed at informing rather than educating. I can say that I am now far better informed than I was before I started reading the articles, and got to the end of them having enjoyed what I think must have been a near-continuous read. There is in technical writing at times the feeling that it has all been written by clever people for other clever people and hard luck if you are not of their tribe. Sankey avoids this — I am not a printer and have no greater knowledge of printing than the man on the Clapham omnibus — and I was never aware of losing a grip on the subject. I found the questions that were forming in my mind were getting answers in the next paragraph or so.

The topics he deals with include:

- copper plate engraving
- copper plate printing
- electrotyping
- zincography
- zincographic printing
- photography
- Photo-zincography

all good names mostly remembered from the margins from old maps. I regarded myself as a non-expert, first class, on the principles of these processes applied to maps, or indeed to anything, but I can now report that I have toppled off that peak of doubtful virtue; I now know what the processes were and I hope I understand how they

worked. The text is descriptive since it was intended to inform rather than be a printer's reference book. After all, we can all admire the better the products of the Ordnance Survey of whatever age without being able to design the production process.

Although mainly about the processes of map printing, there are interesting asides into other things of the time. I note with interest that some machinery had its own steam engine to drive it rather than getting power from a belt drive from overhead shafting; that Mr Dalglish, Mr Appel, Sgt Mortlock RE and Sapper Ekins are mentioned as having improved parts of the process; and that stale bread, rather than for instance McHine's paste, is quoted as a means of cleaning paper drawings, and it didn't even have to be sliced. There are plenty more.

Because whole pages are reproduced, there are fascinating snippets about other subjects to distract one. If ever I find volume 95 anywhere, I shall have to stop and find out just how....But that is another story!

In short, I found this reprint a most interesting and informative read. I am glad that the CCS have produced it and I feel that no serious student of maps should be without one. I didn't find any jargon I couldn't get on with and it is something that I would recommend to anyone interested in maps in general and the earlier ones in particular. I hope that the topic can be continued and that somewhere there lurks a series of articles dealing with the next 60 years of map production. What I must do now is to look in the local DIY stores for some Tripoli Powder,

Bitumen of Judea and Aleppo Gall and I shall be on my way to map printing on the kitchen table.

Don't ring me; I'll tell you when I find some and have got the line up and running.

*David Wright*

Tim Owen and Elaine Pilbeam, *Ordnance Survey, map makers to Britain since 1791*, Southampton, Ordnance Survey, 1992 [1995]. ISBN 0-319-00498-8, pp (10), 1-196, 200 illustrations, 29 cm, softback, £14.95.

This was well received by Ian O'Brien in *Sheetlines* 34, who commented on what good value it was, and how books of such quality tended to be offered for about twice the price. After a short period out of print 'Owen and Pilbeam' now make a most welcome reappearance, at the original price, but now in paperback rather than hard covers. Nonetheless, it remains a very good buy, not least for many of

the illustrations. A few of these are both of documentary value, and offer possibilities for humorous alternative captions. Those who like to squeeze every drop from their OS purchases will like to know that that at least some of the misprints noted in the earlier review have been corrected (I have not checked to see whether they all have) and some small revisions have been made to the chronological tables at the back.

*Richard Oliver*

Christopher Board and Peter Lawrence, eds, *Recording our changing landscape: the proceedings of the seminar on the future history of our landscape held at the Royal Society on 16th October 1992*, London: Royal Society, British Academy and British Cartographic Society, 1994, pp iv, 115, B5.pbk, ISBN 0-85403-491-9, £9:00 (£10:00 overseas). [Copies available from BCS Sales and Distribution, c/o Dr T.A. Adams, Laser-Scan Ltd, Cambridge Science Park, Milton Road, Cambridge, CB4 4FY]

I visited the exhibition 'GIS 94' held at the National Exhibition Centre, Birmingham, in May last year. I was very impressed with the developments currently taking place in geographical information systems (GIS), and depending upon other commitments I hope to attend the GIS 95 Exhibition. As a result of attending the 1994 exhibition, I express my concern through *Sheetlines* that insufficient attention would be paid to producing suitable map archives in the digital mapping era. It was against this background that I was asked to review the publication *Recording our Changing Landscape*, the proceedings of a seminar on the future history of our landscape, held at the Royal Society on 16th October, 1992.

The proceedings follow the usual format beginning with a summary and recommendations for future action. There were two sessions with the individual papers produced in full and a report of the discussion in each session. The themes for Session One covered 'Permanent Information over Time — User Needs' and the 'Producer's Perspective'. The themes for Session

Two covered 'Options for Future Solutions' and 'Foreign Insights'. The Chairman's remarks at the end of each session helped draw the threads of the discussion together and focus the aims of the seminar. The participants in the Symposium are listed in the Appendices along with other relevant information, including the aims of the seminar: "to consider how to preserve the record of the changing landscape for use by future generations and to make recommendations to data producers, to libraries and archives, and to government."

I have not gone into a great deal of detail with regard to the content of the individual papers as I cannot hope to cover the needs of every user of map information. The question of recording our changing landscape is tied up with what the information is to be used for and who wants it. Digital systems are the way forward for data providers and are likely to become the preferred option for data holders in the libraries and for users at some stage in the future. I would agree with the views expressed by Dr Richard Oliver to concentrate on finding some means of storing all

this digital data that is exploding on us now, rather than get side tracked into raster-scanning the pre-digital Ordnance Survey archives.

My concern for producing suitable archives in the future, whether computer based or analogue based, was covered in several of the papers. I am reassured from reading the proceedings that the subject has been given much attention and I hope that it continues to be so. It is unthinkable that the topographical record of the best mapped country in the world should cease to be preserved. However, what is the best way forward — the ‘snapshot’ approach, or the ‘record of change’ approach? There is a long way to go before all the parties concerned come up with an agreed format, but if a satisfactory agreement is not reached between the Copyright Libraries, Ordnance Survey (OS) and their sponsoring departments, topographical data — of unequalled scientific and social value — will become the first part of the national printed record to disappear. As far as the map of Britain is concerned, history will have ended. A sobering thought.

I found the proceedings to be informative and educational; they were fairly easy to read, but one or two papers contained too much jargon for my liking. The table that appeared in *Sheetlines* 41 covering the use of historical information like non-current large scale OS mapping would have been a useful appendix to the proceedings, as

well as tables covering what existing OS mapping is currently required for. I personally would have liked a glossary of terms to be included in the Appendices; if the publication is meant to be read by a wider audience, such a glossary is essential. Financial considerations were touched upon in several of the papers and a development that has occurred since the seminar is the introduction of a National Lottery. The costs of maintaining the historical archive is surely a justifiable claim for funds accruing from the National Lottery.

I believe that the aims of the seminar were achieved and the proceedings appear to be an accurate and fair record. It is not meant to be adverse criticism, but I am disappointed that it has taken so long for the proceedings to appear. No doubt there are valid reasons for this. In this time of rapid change in information technology, it would be easy to dismiss the book as being out of date and not relevant. However, the recommendations have been acted upon and the issues raised at the seminar held in October 1992 are still relevant today and will be so in the future.

I would encourage members of the Charles Close Society to read the book, or, at the very least, to familiarise themselves with the issues raised therein. The issues raised are relevant to a wider audience but I cannot see many copies appearing on the shelves of public libraries.

*David Kimber*

*The Cartographic Journal*, vol. 31, number 2 (December 1994)

The latest issue of is the shortest to be issued for a long time, but more than compensates in the quality of the articles, only one of which is of direct Ordnance Survey interest, but three more of which have OS bearings.

C. Perkins, ‘Quality in map librarianship and documentation in the GIS age’ (pp 93-9) discusses possible changes in map library services in the light of the change from paper maps to digital mapping and Geographic Information Systems, and draws a contrast between the majority of libraries which will have little option but to leave digital mapping to computer specialists, and the minority which will

be able to integrate digital and paper mapping. Students of the problems of archiving and retrieving OS digital data, as described elsewhere in this issue, will note that one of the problems for digital map libraries is accessing multiple formats of data: your reviewer wonders whether this proliferation of formats may not yet prove to be the Achilles heel of the digital-GIS revolution.

Historical GIS is explored in A. Pearson, P. Carter and R. Gallmeier, ‘The application of digital mapping techniques to the tithe map of the Parish of Newport, Pembrokeshire’ (pp 105-112). It may be noted that, rather than digitise the tithe map, the authors digitised the OS 1:10,000 and

added tithe data to that: your reviewer wonders what the relative costs might be of pursuing this route, rather than digitising the tithe and similar pre-OS ‘cadastral’ maps direct. This paper provides ammunition for those who think the future is digital.

Around 1920 it might have seemed to some that the future of survey and revision lay in air rather than ground methods. In Britain, at least, this change was slow to come about; British military experience elsewhere is described in P. Collier, ‘Innovative military mapping using aerial photography in the First World War: Sinai, Palestine and Mesopotamia 1914-1919’ (pp 100-104). This includes a small, reduced scale, extract from ‘possibly the first map produced entirely from aerial photography’, of a Turkish position, dated 29 February 1916. In contrast to the Western Front, where air photographs were used only as an aid to revision, in the Middle East they were used for primary survey work. The author notes that the experience gained in the Middle East did not produce much interest in Britain (in contrast to, say, India), and suggests that this was due to domination of the British

military establishment after 1918 by those who had gained their experience on the Western Front rather than in the Middle East.

T. Nicholson, ‘Buried Gold: The Ordnance Survey one inch/mile black outline, coloured roads district map 1899-193?’ (pp 123-31), is a companion to this author's earlier paper, *CJ* 28 (1991), 176-80, which described the OS's earlier district maps. Between 1899 and 1904 59 1-inch district maps were published with black outline and sienna roads: more than half were reissued with Third Edition-derived revision, and *Torquay* was reprinted as late as 1931. Your reviewer must confess to not being wholly converted to the ‘buried gold’ view, but here are good arguments why this ‘ugly duckling’ was relatively successful: had it not been, the chances are that the OS would not have graduated to the more elaborately coloured tourist and district maps, of which examples continue in publication to this day. There is a comprehensive list of sheet titles, parent numbered sheets, base map editions, and known reprints.

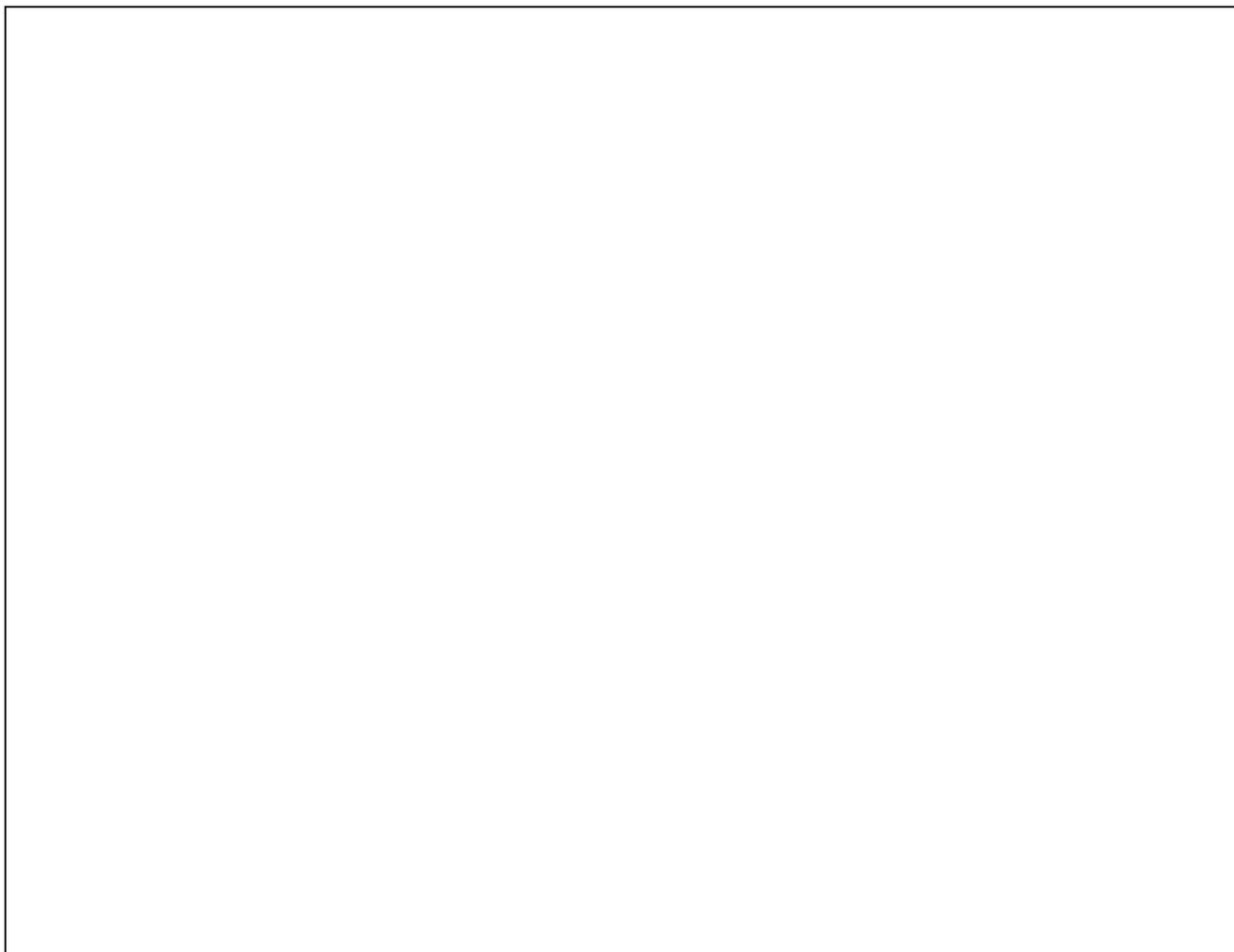
*Richard Oliver*

R.J. Dean, *Historical Map of the Birmingham Canals*, and *Inland Navigation: an historical waterways map of England and Wales*, Cleobury Mortimer, M. & M. Baldwin. (Reviewed in *Sheetlines* 41)

Richard Dean has written asking that members be made aware that a revised and improved Second Edition of the *Birmingham Canals* is now available at the same price (£3.50). Additionally, (and, one suspects, coincidentally, for it will delight the reviewer in *Sheetlines* 41 whose *bête noir* is double sided maps!) the *Inland Navigation* map can be supplied as a pair of single sided flat sheets for £7.50, including postage. They are, of course, available direct from Richard at 49, Grange Road, Biddulph, Stoke on Trent, ST8 7RY.

Richard goes on to write that much of the topographical information in these maps is derived from Ordnance Survey sheets, going right back to the Old Series One-inch, and a

proper treatment of the subject would have been impossible without them. This underlines the enormous value of Historic Ordnance Survey mapping. By way of illustration, the adjacent extract is from the Lancashire 6" sheet 106 of 1848 showing the original Liverpool Terminus of the Leeds and Liverpool Canal. Major alterations through railway construction and municipal improvements are all faithfully recorded on later editions; all is now erased from the landscape forever. He concludes that it was particularly warming to see the overwhelming support for appropriate future archiving of Ordnance Survey data, as evidenced in the OSIP 12 reproduced in *Sheetlines* 41.



## Reports of Meetings

### Branston, near Burton-on-Trent, 8th February, 1995

A second Midlands evening meeting was held at St Saviour's Church Meeting Hall, and was attended by 8 members, braving the elements to do so. They had a pleasurable evening looking at and discussing favourites and curiosities, fetched out of the depths of the ubiquitous plastic shopping bags

Before the fun began, the members discussed the option of finding a different venue, and the possibility of putting the meetings on a more formal basis by including, for example, the invitation of guest speakers. The matter of meeting place was not resolved as, whilst it might be preferable to hold meetings in a city or large town, there isn't one which can be regarded

as being central to both the east and west Midlands. The possibility of speakers is being investigated. Apparently everyone became so involved in the real purpose of the evening — the of study of Ordnance Survey maps — that nobody made notes of what was shown. (*As editor, I have been promised someone will try harder next time!*)

*Postscript:*

Will the member who lent Lez Watson his copy of the *History of the Retriangulation of Great Britain* please contact Lez (tel: 01283 541303) so that he can return it?

*Lez Watson*

## A Map in my Collection

### 2 — *Scottish Mountaineering Map of the Cuillins, Isle of Skye*

Tim Nicholson can now answer his own question in *Sheetlines* 41: No, the 1907 printing of the Cuillins map is not the first, since one dated 1898 has come to light. The scale is the same but the area covered is much smaller, omitting most of the surroundings of the Cuillins proper included in the 1907 printing. The base is, of course, the previous First Edition Six-inch/mile map. There is no overprint for routes, but “Names and Heights not in the Survey Map have

been added to this map in block letters”; a feature dropped by 1907, possibly because “These heights.... being taken with the Aneroid, are only approximate”. The title is *The Coolins Skye* — note the spelling, which does not agree with the Ordnance Survey map — and it is dated January 1898, beside the name of W. Douglas, Honorary of the *Scottish Mountaineering Club Journal*, Edinburgh.

### 7 — *1:50,000 paper covers (Sheetlines 41)*

Dr G.Roberts from Long Eaton reports that he has a copy of Sheet 142 *Peterborough and surrounding area* with integral paper covers. The cover is as the normal Landranger with a colour photograph; the edition is A/\* and the print code is 12000/9/84/8412785. It has an ISBN number and Barcode. He has not found any earlier Landranger maps in his collection bearing Barcodes.

However, Dr Roberts goes on to say that he has a copy of 1:25,000 Leisure Sheet 25 *Isles of Scilly* with similar integral paper cover. It is yellow and black with a colour photograph on the front; the rear carries an outline map of the Isles, a brief description and an ISBN and Barcode. The edition is A/ and the copyright date 1982.

### 10 — *South east London Six-inch map (Sheetlines 41)*

John King suggests that the map in question was one produced for use in schools. His own school (Tiffin School, Kingston upon Thames) still has a few copies of a type of map similar to that of Steve Simpson’s; it is Six-inch map and part of Surrey 12 NE and Middlesex 25 SE sheets. There is no title, but does say “Edition of 1920”, with a key. The reprint is 100/26. The railways are still shown as pre-grouping and contours are printed in red at 50ft intervals. The

paper is thin and flimsy and tears easily. Stamped very prominently at the top left is: “This map is supplied for use in the Tiffin Boys School, Kingston. It is to be used by .... and on no account is to be sold or given away.” Amazingly, the map does not cover the site of the school at that date. John still uses these maps (with great care!) with Sixth form groups since they show change in human landscape so clearly.

### 11 — *Map annotations*

One often buys maps marked with various annotations, possibly town names underlined or routes inked in (sacrilege!). Derek Wiseman has purchased a copy of the One-inch Popular Edition, Scotland, Sheet 44, *Ballater and Strathdon*, which carries a bit of social history. Someone has drawn a neat red line round a country seat or an estate, even to the extent of sticking on an extension to go beyond the northern sheet line. The whole area enclosed is approximately 8 miles north to south and 3

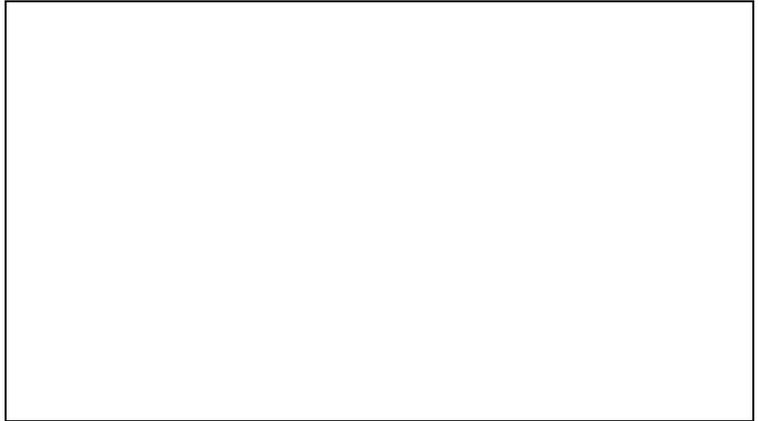
miles east to west; it straddles the River Don a few miles east of Strathdon and embraces a house and park, ‘Glenkindie House’. The condition of the map and the manuscript addition suggests that the map hasn’t passed through many hands before Derek Wiseman bought it.

Does any member of the Society know anything about the family (or estate) to whom the map belonged in the 1920/30’s?

### *Map Framing on One-inch New Popular covers*

Walter Patterson has two copies of the One-inch New Popular Edition, sheet 183 *Eastbourne*, seemingly the same in that they were both published 1940 with Full Revision 1936 and Roads 1946, Code 1157, price 3/6. However, they have different framing for the location map on the front cover, as shown in the accompanying diagram.

Type A appears to be the common version, but he has another example of type B. Can anyone explain the background to the different formats?



## **A Map of Different Specifications**

Rob Wheeler

It sometimes comes about that a map is produced partly to one specification and partly to another when the map is composite with components produced to different standards. However, it has been rare, in the 20th century at least, for a map to go on sale when it was half way through a revision. To explain how the map described here came to be produced in this way requires a brief history of the England and Wales Half-inch in the 1930's, which will in due course be told far more authoritatively by others. Nevertheless, the map is sufficiently curious to justify the space.

The key map for an understanding of this era is the 3500/30 printing of sheet 6, *Middlesbrough, Richmond and Ripon*.

The original Large Sheet Half-inch series had been based on the Third Edition of the One-inch. From 1926 to 1930 a number of these maps were re-issued, based on One-inch Popular material. The specification of the revised maps was updated by introducing an 'indifferent or winding' category of roads, changing the symbol for railway stations to the red filled circle used on the One-inch, introducing the 'P.t' category of post offices with telephone, changing the lettering of the title to that used on the Popular, and introducing bridle and footpaths. These last

had already introduced in small numbers on revisions of sheet 5, *Lake District*, but the new maps showed them extensively.

From 1930 maps appeared which incorporated some or many of these features, but which were not revised to incorporate the detailed changes from the Popular revision. (I have not seen the new style of title, 'P.t' offices or extensive paths on any such maps, although the late Guy Messenger told me that paths were introduced on the 1939 printing of sheet 11.) This change appears to be referred to in the 1931 Annual Report, which noted that "...experiment has shown us how to add to the usefulness and appearance of...reprints of the Half-inch...without increasing the cost of production".

The 3250/32 printing of sheet 6 had always struck me as unusual in that it incorporated revision in some areas, but not in others. (I had not seen the 3500/30 printing myself, but have subsequently found it to be similar.) I therefore went over the map systematically, noting for each 2-inch square the number and type of changes from an earlier state. The conclusions are remarkable.

- a. The lower eight inches of the map appeared fully revised to the new

standards, with changes in all 2-inch squares.

- b. The upper ten inches had minimal redrawing to meet the new specification such as of railway stations. Revision had taken place to show new industrial development at Billingham. The only paths were continuations of those from the bottom eight inches, extended until they came to a road.

The only interpretation I can place upon this is the following:

Revision and (partial) redrawing had been in progress when the change in policy occurred. This revision had been

undertaken from bottom to top (perhaps one 2-inch square at a time) with new features being drawn in their entirety, rather than stopped at the edge of a square. The decision was then made to cease redrawing to the old standard, or to continue it to a tidy stage such as the E/F line. The upper half of the sheet was then revised to the new economical standards.

If this interpretation is correct, it makes the map a rare (unique?) example for the 20th century of an Ordnance Survey map put on sale in an incomplete state. It also provides an insight into the way in which minor revision was drawn in the inter-war period.

Half-inch sheet 6 (E&W) Area around E/F,8/9. The regularly arranged buildings at Scotton are the southern fringe of Catterick Camp, most of which lies in squares E8 & 9, and so are not shown. The block of huts east of Scotton overlaps the E/F line and is shown in its entirety. Otherwise, N of the line, the new section of road N of Brough Hall is shown on the yellow plate only.