

Sheetlines

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

This edition of *Sheetlines* was published in 2006 and the articles may have been superseded by later research.

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

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

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



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SHEETLINES

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Contributions, long or short, profound or trivial (but related to Ordnance Survey matters, however tenuously) are always welcome.

– so has said the rubric on the back cover of *Sheetlines* since time immemorial.¹ The recent expedition to Latvia was enormously successful, and great fun for those of us who took part, but was its relationship to our aims and objectives sufficient to justify the space given to it in this issue of *Sheetlines*?

My answer, both as editor and as a member of the Riga party, must be 'Yes'. We ransacked the Jāṇa Sēta map shop for copies of Soviet town plans of the UK, source material for hours of research on their possible OS content. The shop itself would stand worthy comparison to a branch of Stanford's, but we were then taken to their cartography department and publishing house, and realised that we were also seeing the early years of a Baltic John Bartholomew and Company.

The following day, it was intriguing to stand in the offices of the Latvian Geospatial Information Agency and listen to Arnis Krišjānis and David Watt discuss two successive editions of the same map sheet, the first produced during the cold war by Military Survey in the UK from 'best available sources' and the following edition, far more accurate, produced by an independent Latvia, now a full member of NATO. Having printed a specimen page from a County Series object name book in *Sheetlines 75*, it was equally fascinating for me to see similar forms being used to cope with the problem of establishing correct geographic naming in a country where, for the previous half-century, all names on maps and in other official documents had been transliterated into Cyrillic.

Sheetlines has already covered many topics in its 25 years. If we define our remit too narrowly there is a danger that we shall focus on ever more detailed and abstruse material. My aim is to produce a varied journal, of interest to all who study Ordnance Survey maps. Good articles on the maps and methods of the Ordnance Surveys in the British Isles will always take priority. If you think that I am publishing too much material only tenuously linked to our main interests, the answer is in your own hands. Get writing!

The fields of research are by no means ploughed out. We could certainly use articles on the advent of digital data and current OS procedures, but also what about something on the retriangulation of the 1930s, or map conservation? Descriptions of working practices and the memories of OS staff are always welcome. We have not had any contributions on *A map in my collection* recently: is there a sheet sitting on your shelves with an interesting story to tell?

Chris Higley

Before embarking on a new project for publication in Sheetlines, please contact the editor to check if he is aware of anyone else already working in the same area.

August, 1993.

Charles Close Society news

Details were given in *Sheetlines 75* of the surveying weekend, planned for 15 - 17 September in Lincolnshire. This promises to be a convivial exercise and is already well booked, but please contact Gerry Jarvis if you are interested in coming.

This will be Gerry's 'final fling' as visits organiser. We always receive a warm welcome on our visits and this is in great part due to the care and diplomacy with which Gerry prepares the way. Only those of us who have taken part in the many successful meetings and visits that he has organised will be aware of all the hard work that he puts into the arrangements.

John Davies is taking over from Gerry and has already proved his capabilities by setting up and leading the Society's enjoyable summer expedition to Latvia. John's programme of events for 2007 will be published in *Sheetlines 77*.

The CCS Midlands Group will meet on Thursday, 14 September, at 19:30 in the Voluntary Services Centre, Union Street, Burton upon Trent. More information from Lez Watson, 54 King Street, Burton upon Trent, DE14 3AF, *leslie@watson.as*, (01283) 541303.

Once the copy for an issue of *Sheetlines* is sent to the printers, the editor breathes a huge sigh of relief (and generally pours himself an equally large whisky) knowing that his share in the work is over. Some days later a van draws up outside Chris and Cathy Bull's house in Southampton and disgorges several large boxes (seventeen at the last count) containing the printed journals. Chris and Cathy then do the essential task of filling over 500 envelopes, labelling them and getting *Sheetlines* into the post. Each time they seem to break their own record for the speed with which they complete the job. After many years of this, Chris and Cathy have decided that a forthcoming move to rural Wales makes this an appropriate moment to pass the baton on, and we are delighted that Rodney Leary has volunteered to take over distribution of this issue. So, thank you, Rodney and diolch yn fawr, Chris and Cathy.

Thanks also to Steve Braim, already responsible for the Society's publicity material, who has now taken over as editor of the annual *Almanack*, distributed with this issue of *Sheetlines*. As the *Almanack* has grown, producing it to the same press date as an issue of *Sheetlines* was becoming awkward; hence the split in editorship.

Tony Baggs

The noted architectural historian, Tony Baggs, died on 31 May, aged 72. A Norfolk man who settled in Cambridgeshire, Tony was architectural editor of the *Victoria County History* from 1971 to 1997. He later moved to Ely and his very active retirement included appointment as Diocesan Archaeologist.

The Times obituary notes Tony's love of maps and comments that he was a keen member of the Charles Close Society. He trained as a surveyor with the Royal Engineers during National Service and was posted to Malaya. Thomas Cocke, in his obituary in *The Independent*, recalls the military precision and order that this brought to Tony's working methods. 'Fifty years later, he would never survey even a Cambridgeshire church without a structured kitbag.'

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The Times, 10 June 2006; The Independent, 4 July 2006.

CCS members who attended the soviet military mapping study day in Cambridge last year will remember Tony's account of surveying the Malayan jungle under active service conditions, and his relief on discovering that the rebels had been ordered not to interfere with R.E. survey parties as 'the maps would be useful to the communists when they took over'. His captured Chinese copies of British military mapping were presented to Cambridge University Library.

Cyril Everard

I first met Cyril at the 1991 AGM, about the time he had a triple heart by-pass. And although he had to take things carefully, he continued to lead an active life and to do what he wanted, with his wife Noreen, his constant companion and a tremendous support. It is not surprising that a geographer should be interested in maps, nor that an academic should find early retirement an opportunity to continue research. Cyril never stopped pursuing his interests, though frequent lapses due to ill-health intervened.

Initially, he focused on Michelin maps, and in 1999 *Michelin maps of the British Isles* 1914 - c.1934 at the 1:200 000 scale was published. I can remember his telling of a visit to the Michelin archives, and of the archivist constantly watching him, seeming unused to anyone actually looking at anything in his empire. I supplied a couple of boxes of maps in order that he could study both the covers and maps. When they were returned, I peeped into one and was delighted, as each map had a strip of paper with a neat note of which category the map fell into within Cyril's classification.

After the Michelin book was published, Cyril started to mention Admiralty charts, and the PhD that he had been working on. This was new to me, but seemed at quite an advanced stage, and despite his health problems, he and Noreen managed to travel in pursuit of material for the thesis, *The Isles of Scilly and the Channel Islands: 'benchmark'*, hydrographic, and geodetic surveys 1689-1980, which was eventually read and passed in 2004, by fellow CCS members Chris Board and Andrew Cook.

In 1998, Cyril had been awarded Honorary Fellowship of the Royal Geographical Society, in recognition of lifetime contributions to the subject of Geography and the Society. What I remember of the citation, was that 'Cyril Everard was proposed for Honorary Fellowship by no fewer that ten former colleagues'. One has to be an exceptional person to be remembered, and to spur such action fourteen years after retirement. I feel that his former colleagues, and all who knew him would agree, that Cyril was one of the nicest people that we ever knew.

David Archer

We also offer our sincere sympathy to Peter Stubbs, the Society's webmaster, whose wife, Caroline, has died suddenly, shortly before their first wedding anniversary.



This OS photograph shows four Directors General at Southampton in 2003. From the left: Major General Brian St G Irwin, Peter McMaster, Vanessa Lawrence and Walter Smith.

Brian Irwin

Major-General Brian Irwin, Director General of Ordnance Survey from 1969 to 1977, died on 6 March. He was in charge during a period of both technical and administrative change, his own military appointment being converted to a civil post in 1974.

Seymour's *History* records that Ordnance Survey installed its first digitising table in 1969, followed by a computer driven drum plotter in 1970. Faced with the need to cut costs, Irwin was a pioneer in the use of digital methods and took a bold line in developing automated systems both for map production and administration.¹

It is thus pleasing that his obituary in *The Times* can record that he 'carried out his role as Director General decisively and wholeheartedly, encouraging staff to think of themselves as being part of a family firm, while offering a more open style of management. Staff in return responded with loyalty and enthusiasm.'²

Brian St George Irwin was born in Dublin in 1917, trained as a surveyor with the Royal Engineers and served in the Western Desert and in Italy. He held a number of post-war appointments, received his third mention in dispatches while in command of 42 Survey Engineer Regiment in Cyprus during the insurrection, and became director of the Large Scales Division of Ordnance Survey in 1963.

² The Times, 24 April 2006.

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W A Seymour (editor), A History of the Ordnance Survey, Folkestone: Dawson, 1980.

Maps of Cheshire, Macclesfield

Chris Board

Macclesfield, on 25 March, was the venue for a remarkable display of maps of Cheshire by David Parsons. Gerry Jarvis, who had organised this study meeting, and I arrived early at the town library and unloaded the refreshments, which were to be dispensed by Shirley Jarvis and Doreen Parsons. Although we were in a modern part of the library, built as an extension of a beautifully restored bank building, something of the atmosphere was present in our room. Tables were quickly in place and I was sent down to meet members as they arrived in the library. Meanwhile coffee was being brewed and maps set out upstairs. All around us the usual throng of citizens were about their library business. Coming from London, it seemed that everyone 'knew' everyone else. Friendly greetings and polite conversation quite unlike what I see in major libraries in London were the norm. So, a pleasant change and atmosphere of calm in the old centre of the silk industry.

David had brought books on county maps, old maps and Cheshire for us to consult. There were numerous county maps, a comprehensive range of Ordnance Survey maps and strip maps from road books. We must all have had favourite maps, either something attractive to look at or rather rare, or previously unencountered, examples. To get the most from such an impressive display one has to have an interest in specific places or areas, distinctive styles, certain cartographers, or particular historical periods. Each of us was drawn to something different, after David had explained what he had brought. As is the case with any serious collection there were items rescued from destruction, acquired for a proverbial song, or runs of the mill. A full range of OS maps from one-inch Old Series to the Third Edition, and large scale town maps of various ages. Many examples were folded to show covers, including nineteenth and twentieth century non-OS map series. Local knowledge, displayed not merely by David Parsons but several others present, made for an excellent and vibrant informal buzz of questions and comment. We also discovered that David had lovingly restored several older items to make them more accessible.

There were also sideshows provided by others who had brought some Russian military maps of the region. One in particular, of Crewe, in a style of the 1950s revealed much when those who examined it knew the ground it covered. Some brought individual atlases and maps to show others, or to discover more about their possessions. I enjoyed seeing an Atlas to the topographical Dictionaries of England and Wales with its maps of the Poor Law Unions, one of several editions and reprints between 1831 and 1848.

By mid afternoon we forced to leave the Library, which had been closed to the public at lunchtime. We were extremely privileged to be able to see such a collection and to meet the collector. I predict that there will be more such meetings in other places. Thanks were expressed to David for his display – and to Doreen and Shirley for keeping us fed and watered.

Aerial photography and the Ordnance Survey An episode from the 1880s

Martyn Barber

It is well-known that the Ordnance Survey, in the aftermath of the First World War, proved somewhat reluctant to add aerial photography to the range of tried and trusted survey techniques at their disposal. Charles Close proved particularly lukewarm on the matter. What is less well-known is that the idea of using aerial photographs had been put to the Ordnance Survey as early as 1880 by a former Royal Engineer colleague of Close.¹

Henry Elsdale (born Moulton, Lincolnshire, 20 January 1843) had joined the Royal Engineers in January 1864, eventually arriving at the Ordnance Survey in June 1873. He stayed for nearly six years, during which time he reached the rank of Captain, before moving on in January 1879. Shortly afterwards he found himself part of the Royal Engineers' balloon section.²

Balloons were a new development for the British Army. Although they had been used for military reconnaissance by the French as early as 1794, and the Royal Engineers had been dabbling with them since the early 1860s, it was not until 1878 that they acquired their first balloon, built for them by Captain J L B Templer (of the Middlesex Militia), who was retained as instructor in ballooning. The intention was to use tethered balloons as a platform for airborne reconnaissance and signalling. Although the possibility of using cameras had been considered from the outset, signal flags, megaphones, heliographs, annotated maps, sketches and handwritten notes provided the most rapid and effective means of passing on intelligence to the men on the ground.

However, Elsdale's initial experiences of ballooning, combined with his intimate knowledge of the Ordnance Survey's working practices, rapidly led to an idea. As Elsdale later explained:

The starting point ... was a discussion of the subject in 1880 with the Director General of the Ordnance Survey, Colonel (now Lt. General) Cooke, C.B. Having had much experience of Survey Work during a long tour of service in the Ordnance Survey I pointed out to the Director, that whereas all the plans on the smaller scales of the whole of Great Britain are largely based upon Photography, being reduced by photography from larger plans, there would be an enormous gain in photographing detail *directly from the ground itself*, thereby doing away at a stroke with all the elaborate processes of surveying, plotting, tracing, examining etc at present necessary as intermediate steps between the objects on the ground and the survey plan. The Director of the Survey agreed in this and undertook to bring the matter forward as a Survey question and endeavour to obtain government funds for working it out in connection with the Ordnance Survey, provided I could by suitable private experiments obtain such results however rude and imperfect, as would establish a prima facie case by shewing the practicability of the process.³

This article represents an offshoot from research undertaken by the author into the history of aerial photography, with particular reference to its uses in archaeology, 2006 being the 100th anniversary of the first aerial photograph of an archaeological site in Britain. A book, *Mata Hari's glass eye and other tales*, will be published by English Heritage late in 2006 and will contain full details of sources consulted.

² Elsdale's service record can be found in the The National Archives (TNA) WO 25/3915 f84.

Major Henry Elsdale, RE, *The Subject of Balloon Photography*, memorandum, 22 November 1886 [unpaginated], TNA WO 32/6068.

Even in 1880, the idea of surveying the ground from aerial photographs was far from being a novel idea. The first man to take successful aerial photographs from a balloon, the Frenchman known as 'Nadar', had taken out a patent (in France) on the idea of mapping from balloon photographs as early as 1858. In Britain during the 1870s, several individuals were working towards similar aims. The most notable was Walter Woodbury, who in 1877 patented a camera of his own design capable of being operated electrically from the ground via wires in the cable used to tether the airborne balloon. It is unclear if Woodbury ever managed to take a successful photograph with his camera, and by 1882 he had abandoned it completely due to a lack of interest shown by those from whom he sought assistance (financial and otherwise). One potential customer, the British Army, passed up the opportunity of investing in the development of Woodbury's camera because they already had a promising one of their own, devised by Henry Elsdale.

It is not at all clear how familiar Elsdale was with the pioneering work of Woodbury and others, but like Woodbury, it was towards unmanned balloons and automatic cameras that his attention was quickly focused. Elsdale clearly wanted to get started with his experiments as soon as possible, especially given the interest shown by Cooke, but circumstances dictated that his experiments took place some distance from home. On 12 January 1881, he found himself in Gibraltar, where he stayed until 3 July 1882, moving from there to Halifax, Nova Scotia until 8 February 1884. After that, he had only a few months back in England before being despatched (on active duty this time) to the Bechuanaland (November 1884 to September 1885).⁴

Elsdale submitted his first detailed memorandum on his ideas and experiments to the Royal Engineers Committee in October 1882.⁵ In it, he described his initial efforts at Gibraltar and Halifax, and described his first batch of photographs. A second memorandum was produced in July 1883,⁶ reporting on further experiments including, this time, producing maps from vertical photographs, and was followed quickly by a third explaining the maps and photographs.⁷ A fourth followed in November 1886,⁸ and appears to have been Elsdale's final word on the subject while still serving with the balloonists.

Elsdale's experiments in 1881-3 appear to have involved almost exclusively small, unmanned balloons, only just capable of lifting the camera which, like Woodbury's, could be operated from the ground via wires running through the cable. The balloons used by Elsdale, like the camera, seem to have been constructed specifically for the photography experiments. Although claiming from the outset to be a novice as far as photography was concerned, by 1882 Elsdale appears to have devised and built a camera capable of taking a series of plates – the shutter could be operated via electricity from the ground for each exposure, or a single

Op. cit., note 3.

⁴ *Op. cit.*, note 2.

⁵ Captain H Elsdale, R.E., *Balloon photography from small balloons, and its applications in war and peace*, memorandum 1, Royal Engineer Committee Extracts for 1883, appendix No. 1, 18 October 1882. None of the photographs submitted by Elsdale were published with the memorandum.

⁶ Captain H Elsdale, R.E., *Balloon photography from small balloons, and its applications in war and peace*, memorandum 2, Royal Engineer Committee Extracts for 1883, appendix No. 1, 26 July 1883. None of the photographs or plans submitted by Elsdale were published with the memorandum.

⁷ Captain H Elsdale, R.E., *Balloon photography from small balloons, and its applications in war and peace*, memorandum 3, Royal Engineer Committee Extracts for 1883, appendix No 1, 9 August 1883. None of the photographs or plans submitted by Elsdale were published with the memorandum. Some of his 1883 Halifax images do survive, however, including two held by Library and Archives Canada. One will be featured in *Mata Hari's glass eye and other tales* and its accompanying exhibition (see note 1 and the end of this article).

press of the button by the operator on the ground could cause the camera to expose the plates successively at pre-determined intervals (there are occasional references to Elsdale's camera being 'clockwork'). By 1883, Elsdale appears to have been working towards a completely automatic camera that could be sent up in a free balloon, without need for a connecting cable – once aloft, the camera would expose each plate at set intervals.

In his various memoranda, Elsdale set out the military benefits of aerial photography, but was particularly concerned with its application to the work of the Ordnance Survey,

Whether it be a question of the application of balloon photography to facilitate and cheapen the operations of a regular survey, by a saving of time and labour in the detail surveying, or to enable such local and special surveys, or military sketch maps, ... to be quickly and easily produced, or for any other purpose of the nature of surveying ... ⁹

Indeed, it was the idea of speeding up the work of the Ordnance Survey, reducing the time, manpower and cost involved in the organization's regular duties, that seemed of particular concern to Elsdale:

Why should surveyors toil day after day, and week after week, in the detail survey of towns, villages, thickly enclosed country, harbours, fortifications, cantonments, or other objects, in order to give us a result which has to be transferred to paper by a tedious process of recording, plotting, tracing, examining and drawing, involving at each and every stage, more labour and more openings for that besetting error and imperfection which is inevitable in all human work; if by one single momentary opening of an automatic shutter in our balloon suspended camera, we can in perhaps the 50th or 100th part of a second, seize and stereotype this whole picture by a process which eliminates at once each and all of these numerous stages with their corresponding elements of error; and which, if the picture be then too small for our purpose, enables us to enlarge it to any required scale, by a similar process, whose accuracy is independent of the human operator, and requires only an instrumental perfection, which can be tested and arranged for in advance to any required extent? ¹⁰

The first batch of prints, taken during 1881-2 and submitted with his first memorandum, were judged by Elsdale himself to be no more than promising, although they demonstrated to his satisfaction the potential of the vertical image – taken with the camera pointing straight down at the ground – for mapping purposes. Moreover, he felt that most of the difficulties encountered in obtaining those prints could be greatly reduced or eradicated with further experiment. These included problems with light, shutter-speed and other camera-related issues, but most problematic was the fact that the tethered balloons he was using were rarely ever stationary. The constant movement tended to result in blurred images, a problem commonly encountered by Victorian aerial photographers, but which he felt would be best overcome by using a free, untethered balloon.

By the time of his second memorandum, the impact of many of these problems had been reduced, and on this occasion the photographs he submitted with it were accompanied by measured and scaled drawings. At the time these new photographs were being taken (1883), survey work (at 1:2500 scale) on the area of the Citadel Barracks, Halifax, Nova Scotia was well advanced. Elsdale reduced his images to the same scale to enable detailed comparison, and produced traces highlighting differences between survey plans and photographs:

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Op. cit., note 5, 17-18.

¹⁰ *Ibid.*, 19.

The pencil discrepancies thus traced, about 70 in number, have been carefully tested by me on the ground by the usual methods as practised on the examination and inked in, in red ink. They represent either small errors in the survey, or (what comes to the same thing for present purposes) alterations and additions to the buildings since the survey was made. The corrections, so made in red by me, have since been tested on the ground and passed as correct by Sergt. Hopkins, who is in charge of the survey. As that N.-C.O. has no interest whatever in the balloon photography question, and every interest in justifying, as far as may be, the accuracy of his own survey, the C.R.E. may, I think, rest perfectly satisfied that justice has been done to the survey.¹¹

Moreover, he claimed to be

doubtful whether there is a single plan (containing any considerable quantity of detail) in the whole Ordnance Survey of Great Britain, which if put to the very searching and minute test which these traces have been through, would not reveal some signs of inaccuracy somewhere, absolute perfection ... being unattainable by surveyors, plotters, draftsmen, &c. On the whole I would submit to the Director of the Survey that a consideration of these traces leads directly to this conclusion, that:-

Balloon photography may be applied to fill in the detail of the blocks in an outline survey, or to check an ordinary survey where the blocks are already filled in, with the result of ensuring more accuracy than is attainable by any ordinary process known to surveyors. 12

Elsdale's second memorandum, plus photographs and plans, was forwarded to the Director General of the Ordnance Survey, who replied on 12 November 1883. For Elsdale, there was an immediate problem, as he later recounted:

Thus after three years work ... I had done all and much more than all I originally intended or undertook to do, by making out a sufficient prima facie case to justify a more extended and systematic enquiry. On the correspondence and photography etc being referred to the Ordnance Survey it was dealt with in November 1883 by a new Director and a new Staff, the Staff at Southampton having been changed in the interval occupied by my experiments.

The former Director had agreed with me in following the well known tradition of Sir Henry James, and starting with the assumption that all Survey questions whatsoever were of interest to the Ordnance Survey, as a leading or the leading authority on Survey in Great Britain and in Europe, whereby such a new process as this would come within its legitimate province to enquire into, to support, and to bring forward. But the new Director and his Officers, in their undoubted discretion, which I do not question, took a narrower, more technical and Departmental view. They reported that in its present form the system does not possess advantages which would lead to the conclusion that it could successfully compete with that now employed on the Ordnance Survey. 13

Elsdale's 1883 memoranda were examined for the Ordnance Survey by Major T J White, whose conclusions were endorsed by the new Director General, Col. Richard Stotherd, R.E. While full of praise for Elsdale's ingenuity, and offering interest in and encouragement for continued experiments, White offered numerous reasons for rejecting the use of balloon photography within the Ordnance Survey. Almost all of his objections arose from problems highlighted by Elsdale himself – the problem of ensuring that the camera is producing a truly vertical view; the difficulties and errors introduced by sloping or uneven terrain; the fact that

¹² *Ibid.*, 33. ¹³ *Op. cit.*, note 3.

¹¹ *Op. cit.*, note 6, 32-33.

some detail would always be hidden from the camera; the confusion caused by the casting of shadows; 'the indistinctness in some of the details incidental to photographs taken of differently coloured or shaded surfaces'; the difficulty of ensuring that all photographs are taken from the same altitude, and the consequent difficulty of piecing them all together at a uniform scale; and 'the elaborate and delicate character of the apparatus necessary, including the lens appliances, [which] would carry a risk of error due to any hitch or defect therein'. The principal problem identified, however, was the weather:

in a climate like our own, I should anticipate that the greatest practical difficulty of all would be that of securing favourable weather for the balloonist's operations ... An enterprising and enthusiastic experimenter could, of course, wait till the favourable day or half day arrived to fly his apparatus; but what about the expenses of the ballooning staff in the intervals? To work a process so heavily handicapped as this, with the result of giving us a number of fragmentary pictures to be made up afterwards into plans, and then to be used mainly as a mere *auxiliary* for test purposes, appears to me outside the range of practical surveying.¹⁴

But beyond even this was the matter of cost, and it seems likely that this was the Survey's most important consideration:

A few isolated test pictures covering small areas, and taken principally of towns or villages, would be no doubt interesting in themselves to compare with our new work, but could be hardly relied upon to exercise the influence on our workmen Captain Elsdale is led to anticipate. And when it is considered that our surveyors, when surveying towns on the large scale (1/500th) measure to the accuracy of half and even a quarter of a link, it would seem doubtful that any balloon photograph could be depended upon as a standard by which to test such work. But supposing that it could, a moment's reflection of the magnitude of our operations, extending as they do over the whole Kingdom, must make it clear that no piecemeal results, such as would alone be practicable without an enormous staff of balloonists and corresponding stock of apparatus, could ever keep pace with the work of the Ordnance Survey. The cost would be out of all proportion to the gain.¹⁵

Stotherd concluded, on the basis of White's report, that Elsdale's experiments

prove beyond a doubt that under favourable conditions a plan of a limited area of ground, representing detail, such as buildings, fences, &c., with considerable accuracy, may be made without serious difficulty. Moreover, if the results, illustrated with the prints and negatives accompanying the report, could be obtained with the comparatively rough apparatus employed by Captain Elsdale, it may be fairly assumed that the system is capable of effective development. It appears to possess, under favourable circumstances, the advantages of rapidity and accuracy. Its disadvantages are the necessity for a clear atmosphere and moderately calm weather.

For the Survey's purposes, his conclusions were as quoted by Elsdale, with the additional point that

the climate of the United Kingdom is such that [balloon photography] could rarely be used with effect. Under these circumstances I am not prepared to recommend that experiments should be made with it in connection with the Ordnance Survey.¹⁶

¹⁶ Op. cit., note 14, Stotherd 43, 44.

¹⁴ Col. R H Stotherd, R.E., memo. by Director General, Ordnance Survey, Southampton, 12 November 1883; and memo. by Major White, R.E., 31 October 1883; both appended to Elsdale's 1883 memoranda.

¹⁵ *Ibid.* White, 47.

Nonetheless, both White and Stotherd felt that, from a military point of view (in their response, they treated Ordnance Survey and 'military' issues separately, despite the fact that the former was part of the Royal Engineers), there was considerable potential in Elsdale's experiments, in particular encouraging his proposal to photograph and map an area of southern England:

Were [Elsdale] in a position to continue his trials in England, and could select, as he suggests, Aldershot, and turn his efforts towards securing a really complete plan of the camp there, which could be reduced or enlarged to our 25-inch scale, such a plan would afford a good test specimen to compare minutely with the Ordnance plan of the same ground, and enable us to form a better judgment of the accuracy and general utility of balloon photography than we can do of ground at Halifax or elsewhere unknown to us. ¹⁷

In other words, the Ordnance Survey was quite happy for Elsdale to continue experimenting and perfecting his methods, so long as they didn't have to pay for any of it.

The suggested trials never took place. As already noted earlier, Elsdale remained in Halifax until February 1884, spending several months at the School of Military Engineering, Chatham, before being despatched (with balloons) to the Bechuanaland, not returning to Britain until September 1885. His next memorandum on the subject of balloon photography, effectively his reply to the Ordnance Survey's rejection of the idea, was written in November 1886. It is clear that three years on, he remained unhappy with Stotherd and White's response.

Elsdale's implication that the previous Director General might have been expected to take a more positive view has already been noted. Moreover, as far as the Survey's rejection of his ideas was concerned,

It is quite clear that if the subject was to be approached solely from the side of its direct and immediate bearing upon the Survey Estimates and as a question of a *competitive system* this result was inevitable. For it cannot for one moment be expected, nor did I ever expect, that such an entirely novel and experimental process, still confessedly in its infancy, and tried only under great difficulties in the Colonies by a private individual at his own expense could all at once dovetail into, supersede, or upset old established and well understood processes, worked out by successive generations of able officers in a powerful Government Department, and at an expenditure of millions. ¹⁹

The question of cost was also partly the concern of Elsdale's 1886 memorandum. After six years of experimentation, he had still to receive any real financial help from the Army. Almost everything had been paid for from his own private funds. Prior to 1883, he had kept no record of his spending (beyond noting that he paid £25 and 10 shillings for balloons in 1882, though the cost of hydrogen to inflate them with was likely to be higher still). In the first six months of 1883 he paid out a further £81, nine shillings and five pence, while between July and November 1886 he spent another £80 with plans to 'expend this winter about ... £150 in all, the whole of this sum being for working out the new process of the free balloon with automatic camera above'. He asked for this £150 to be covered by the Army, though it is not clear how much eventually came his way. However, as early as 1883 he had

¹⁷ Op. cit., note 15, White, 47.

¹⁸ *Op. cit.*, note 2.

¹⁹ *Op. cit.*, note 3.

²⁰ *Ibid*.

sought to protect his private interests in the matter by patenting the idea of using an automatic camera from balloons for various purposes, and at the time of his November 1886 memorandum was proposing also to patent the idea of automatic photography from free balloons, although it is not clear if he ever did so.

By 1886, he was a major, and was in charge of the Royal Engineers' balloonists (officially, he was 'Instructor in Ballooning, and Commanding Officer of the Balloon Shop'), while Templer, now also a major, was in charge of the technical side of things (R&D, in modern parlance). Elsdale's experimental work with balloon photography effectively ended during 1888, when he became involved in a farcical attempt to court martial Templer. Templer had been arrested in February of 1888 on suspicion of passing allegedly secret details of balloon-related equipment to the Italian military. Elsdale appears to have been the prime mover behind the prosecution, and a principal witness. Unfortunately for the prosecution, among other weaknesses in their case, Elsdale also provided Templer with an alibi. The court martial collapsed without the defence having to put their case.²¹

Publicly, Elsdale was stated to have acted with honourable intentions, and was later supported in this by Charles Close:

looking back upon the unhappy incident after fifty years I am convinced that the fault lay not so much with Elsdale as with the higher authorities, for Elsdale merely communicated his suspicions to the Commandant, suspicions which were proved to be groundless.²²

Nonetheless, once the court martial had ended, to the amusement and derision of the press, Elsdale ceased to be part of the balloon section with immediate effect, being replaced briefly by Close. Templer was free to continue his career as though nothing had happened.

After spells in limbo and Exeter, Elsdale spent the remainder of his military career in Natal and Hong Kong, occasionally publishing articles in magazines (military and civilian) on a variety of scientific topics, including ballooning. He retired from the Army on 20 January 1900, leaving Hong Kong for San Francisco, where he died of 'typhoid fever' a month later. The Royal Engineers' balloonists do not seem to have taken the idea of photography (for mapping purposes) from free balloons any further after Elsdale's departure, while photography remained in the hands of interested individuals until 1905, when for the first time an officer (Lt. P H Sharpe) was specifically tasked with taking charge of photography from balloons. By that time, of course, the balloon was already on the verge of being superseded as an aerial reconnaissance platform – indeed, it was the balloon section itself that was home to experiments with kites, airships and aeroplanes.

It is not clear how long the Royal Engineers persisted with Elsdale's automatic cameras after his departure. Only one episode of use is definitely known – in the early 1890s, Close, by now in India, sent for one of Elsdale's small unmanned balloons plus camera with the aim of photographing archaeological sites from the air. He planned to use the resulting photographs as a basis for mapping the sites. However, once the equipment arrived, he found himself forbidden from using it outside Calcutta, much to his annoyance. After one

²¹ The Times, Friday, 6 April 1888, and subsequent days.

²² Colonel Sir Charles F Arden-Close, *Ballooning days 1887-1888*, Royal Engineers Journal vol 99 (1985), 269-273. This article contains the text plus some images from an album of early photographs compiled by Close, circa 1938, to record his ballooning experiences. The album was given to the Royal Engineers Museum, Gillingham, Kent by Close's son, Colonel R F Arden Close. During two visits to the museum by author in 2005-2006, the album could not be located.

²³ *Op. cit.*, note 2.

unsatisfactory trial, the idea was put aside.²⁴

With the hindsight of a hundred years or more, it would be easy to be critical of the Ordnance Survey's decision to reject Elsdale's ideas. However, there were very real obstacles which needed to be overcome, not all of which were properly considered at the time. Elsdale's better quality photographs of Halifax demonstrated without doubt that vertical aerial photographs capable of forming the basis of maps were achievable. By the 1890s, concerns with light, shutter speed, and balloon oscillation and vibration had been overcome to the extent that illustrated magazines, such as *The Strand Magazine* and others, frequently featured aerial photographs taken from free balloons using nothing more sophisticated than an ordinary Kodak box-camera.

But balloons, of course, could not be steered – one could wait until the wind was blowing in the right direction, but otherwise the direction of flight could not be guaranteed. Neither, of course, could duration of flight, while maintaining the required altitude could be tricky too. Ironically, these were problems that could all be overcome to a varying extent by the use of a tethered balloon. The weather too was a problem, as all parties noted.

Interestingly, Elsdale made no mention in his memoranda of stereoscopic photography. Although he clearly intended that his automatic camera should be capable of taking a sequence of exposures during a free run, he seems to have been unaware of the potential advantages of ensuring a degree of overlap in the content of successive plates. One wonders if he might have found a more receptive audience had he been able to show them the landscape in 3D.

Perhaps more surprising and disappointing than the Ordnance Survey's rejection of Elsdale's ideas was the failure of the Royal Engineers to persevere with the idea of mapping from vertical aerial photographs. The surviving documents and published notes suggest that they continued to experiment with oblique photography as an aid to their usual airborne intelligence-gathering activities – the majority of surviving photographs taken between 1886 and circa 1910 from Royal Engineers balloons are oblique views – but there is no mention of even considering mapping from verticals again until 1905. Consequently, when the First World War began, as far as aerial photography and mapping was concerned, it was virtually a case of starting all over again.

An illustrated exhibition, '100 years of discovery: aerial photography and archaeology', will be will be launched at Stonehenge (1 - 7 August), before moving on to the Festival of History at Kelmarsh Hall, Northamptonshire, 12 - 13 August and then several venues in Wiltshire: Old Sarum, 21 - 29 August; the Great Barn at Avebury, 2 - 28 September; Salisbury Museum, 7 October to 6 January 2007; Devizes Museum 16 January to 17 February. Subsequently, the exhibition will visit the Royal Engineers Museum of Military Engineering, Gillingham, 5 March to 27 April; Aldershot Military Museum, 12 May to 24 June, plus RAF Museum Hendon and FAST, Farnborough (dates to be confirmed). Other venues may be added to the list. Further details can be found at www.english-heritage.org.uk or by contacting the author, martyn.barber@english-heritage.org.uk.

²⁴ Close wrote about this episode on several occasions. The most accessible are Close (1985), see note 22, plus some letters in the The National Archives (OS 1/11/1 letter 4/1/1919; OS 1/11/1 letter 6/1/1919; OS 1/11/2 letter 28/8/1920). Note that there are differences in detail between these accounts.

One-inch New Popular map covers distinguished K S Andrews

Apologia

Since man first gathered food and firewood, the urge to collect has been a trait of human behaviour. What you collect reveals something about yourself. To collect map covers can be interpreted as a retreat to a world of superficiality where the presentation is more important than the substance. To admire their art, probe their development and catalogue the extent of their variety are not trivial pursuits. The New Popular covers, of a distinguished design, are superficially closely related but on detailed inspection they possess an ample, even bewildering lack of uniformity, making their study a taxing mental exercise.

Introduction

With the lifting of wartime restrictions, the New Popular Edition was launched in 1945 and completed in 1947. Familiarisation of forces personnel with map reading, from General Montgomery through to Captain Mainwaring, probably increased sales so that they can now be bought cheaply second-hand. Richard Oliver wrote a descriptive booklet which included a two-page analysis of the covers; this was the foundation stone and inspiration of the present report on a detailed visual inspection of them. The Seventh Series progressively superseded the New Popular between 1952 and 1961.

H96.1.a.1 (hand lettered) and H96.1.a.2 (letterpress)

Roger Hellyer gave the hand lettered New Popular cover, drawn by Ellis Martin, a separate classification H96.1.a.1 to distinguish it from the derivative letterpress version, H96.1.a.2.² The system presented here for identifying all the variants of the cover retains that distinction and differentiates the letterpress front covers, dividing them into five groups (see *Decision Tree*). All six groups are subdivided for differences elsewhere on the cover, giving the tables of variants a minimum of complexity. As with the one-inch Seventh Series study, to simplify presentation, the matching covers of paper, cloth and dissected maps have been combined.³ The total number of variants is 41.

Decision tree

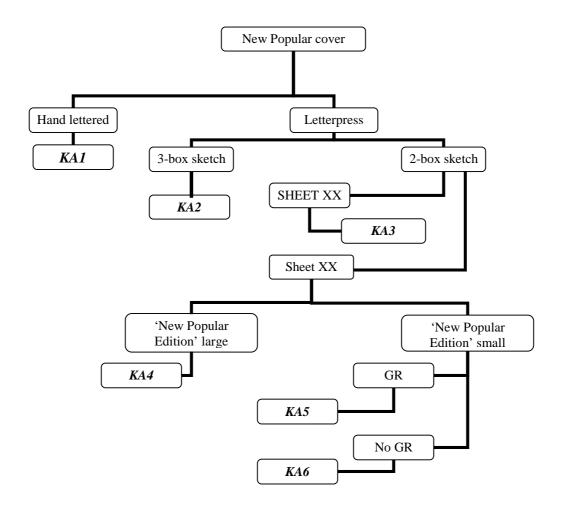
To identify a cover, the accompanying decision tree should be used to perform an initial sort into a group depending upon the front design. The appropriate table should then be studied in order to identify the variant using the features of the spine, the back and the text inside.

The letterpress front covers with two-box sketches are distinguished by 'SHEET' or 'Sheet', the size of the words 'New Popular Edition' and whether 'GR' is present in the medallion.

Richard Oliver, A guide to the Ordnance Survey one-inch Popular Edition, Charles Close Society, 2000.

² John Paddy Browne, *Map cover art*, Ordnance Survey 1990, 132. In TNA, file OS 1/216 contains minute 62, 19 August 1940, which records that Ellis Martin was preparing drawings for the [New Popular] blocks, and minute 74, 5 January 1945 records the DGOS [Cheetham] approved the new design – Richard Oliver, personal communication.

³ Sheetlines 70, 11-21.



General comments

As is well known, hand lettered covers were made for eleven sheets in the south-east of England, 157, 158, 161, 167, 169, 171, 172, 179, 182, 183 and 184 when the edition was envisaged as covering Great Britain with the title *New Popular Edition One-inch Map*. When the series was scaled down from 190 to 114 sheets and Martin had left the Ordnance Survey, the cover was modified with extended use of letterpress and the title became *New Popular Edition One-inch Map of England & Wales*.

The hand lettered cover with ONE-INCH MAP in red with a black outline was an elegant design. There was a rational progression from general to specific information with series name, scale, sheet number, then title, then sketch map, the latter in a three-box frame. Letterpress covers put the title above the sheet number and were cluttered by the addition of publication and revision dates as required by parliament. The change from a three-box to a two-box frame was an improvement, the original frame being too bold, distracting the eye from the sketch. The eleven hand lettered covers bore no publication and revision dates and the later letterpress covers for those sheets gave just the publication date (straddling the sketch) until the map itself bore a revision date. The other 103 sheets' covers always had publication and revision dates.

⁴ Publication on left, revision on right, changed round for Seventh Series covers. Publication year changes by overprinting, or by blocking out and adding a new year below, have been seen.

The price statement on the eleven hand lettered covers was, widely spaced, *Price* (on cloth) 2s. 6d. or, with normal spacing, *Price* (Paper) Two Shillings or Price (Dissected) Four Shillings & Sixpence. The new price range on first publication was indicated by a small label printed in red, gummed by one edge. On letterpress covers, the cloth price was in words. Net was added in 1950. Publisher's price changes to covered maps in stock were by means of paper strips reading e.g. Price (Cloth) Five Shillings or Price (Cloth) Six Shillings & Sixpence Net. Later, a rubber stamp was used, e.g. 'Revised Price 5/6 net.' in a rectangle. Exceptions exist. Map covers are categorised using the original price.

The hand lettered covers were trimmed to the size of the Bender folded or dissected map; all later covers were longer and wider. The dissected covers were in two pieces, opened like a book and had no spine; therefore, unlike the Bender covers, the text inside the front cover was not inverted. The dissected map option was officially withdrawn in 1955. In this study, the latest cover seen in dissected form was KA4.4, a quite common variant that is the last one before the price rise of July 1950.

Price changes (data from Oliver, op. cit., tabulated)

Date range	Paper	Cloth	Dissected
Pre-publication	1/9	2/6	4/-
Pre-publication	2/-	2/6	4/6
1.9.45 - 30.6.50	2/3	3/-	5/-
1.7.50 - 30.6.52	3/-	5/-	10/6
1.7.52 - 31.3.58	4/-	6/6	18/6, see text
1.4.58 - 31.12.60	4/6	7/-	
1.1.61 on	5/6	7/6	

Price changes were used to assist with the chronology of cover variants. The first two price ranges were not used for sales. Paper covers priced at 1/9 and dissected covers priced at 4/-have not been found in this study. No dissected map priced at 10/6 was seen; the price from July 1952 was probably 18/6 by analogy with concurrent Seventh Series prices.⁵

As a check, the price change dates were correlated with the date of the latest published map seen in each cover variant, using publication dates from Oliver (*op. cit.*) This revealed just one anomaly – sheet 142, *Hereford*, printing 1239 published in 1951 was found in cover KA4.4 which was priced in the range that ended 30.6.1950.

Chronology of variants

In the table for group KA1, the hand lettered cover variants are numbered but their chronological order is unknown. The variants of the other groups have been assigned a chronological order based on intuition and evidence, as follows.

- The analogous variants of groups KA2 and KA3 were taken as simultaneous.
- The following changes were diagnosed as being watersheds, points of no return, in the evolution of the cover:

Reference to Orkney and Shetland in the description of grid working Introduction of printed spine to paper map covers

_

Sheetlines 70, 12.

Change of case, 'SHEET NN' to 'Sheet NN' on the front

Price increases (see price change table)

De-emphasis of 'New Popular Edition' on the front

Removal of 'GR' from the medallion

Introduction of the Seventh Series index on the back.

Some later variants have date codes on the rear hinge, a godsend to the researcher not in need of intellectual challenge.

The ordering of variants lying between watersheds is more problematic. It cannot be assumed that variants with a particular peculiarity, for example Scottish Popular sheet 89 on the index, are consecutive. A variant could also be an interruption to the previous variant that was later resumed. For example, the tan card variant KA3.8 may have been produced during the currency of 3.7. A recent report in Sheetlines alluded to the unreliability of sheet publication dates as evidence for dating covers - only 35 out of 185 date-coded Seventh Series covers examined bore the month and year of issue.⁶ But, for very common New Popular variants, the publication dates of a large number of sheets were available to estimate the approximate date of last use of the variant. For scarce variants, the paucity of such data was a severe handicap. However, the dates in the tables for the latest sheet found in a particular cover variant may not be a reliable indication of the date the next variant was begun. This cautionary stance stems from the pre-printing of the general black and red parts of the cover in large numbers, with sheet-specific information added later to covers in stock which could have been used out of their proper order.

The dissected covers were in two pieces, hinged on the opposite sides, with the inside front not inverted, and were therefore a separate stock item, so it can be seen that variant KA4.1 may derive from a batch with general data printed for variant 3.5.

Printing procedure

As indicated above, the study of variants is linked to the printing procedure, which is indicated by two minutes found in the Public Record Office by Richard Oliver and shared with the author. In OS 1/307, minute 81A is an estimate form of 15 July 1947 for printing by lithography the common red and black elements for 50,000 one-inch covers 8-up, on 6,250 sheets; minute 211A of 28 October 1948 details that New Popular covers were two lithographic printings, red and black, for everything in common and one letterpress printing for all information particular to the individual cover. Sheet-specific data are the sheet number (top right), the title, sheet number statement, sketch map, publication and revision dates, price line (paper, cloth or dissected) and the spine (where present). See also *Hinges* below.

The part pre-printing of covers in large batches explains why variants KA3.7 and 4.2 share the same general information, as do 3.9 and 4.3 and again 3.10 with 4.4, 4.5 and 4.6. Their differences are confined to the change from 'SHEET NN' to 'Sheet NN' and price rises, i.e. sheet-specific data. The common stock of part-printed covers and the different widths of the spine for cloth and paper maps explain why the index diagram is situated

Sheetlines 75, 24.

Note that Scottish Popular (with National Grid) covers share many of the printed matter options described in this article and have some similar changes to the front design. They are in two pieces, though different from New Popular dissected covers because the back hinge is on the opposite side. Possibly the backs were printed in common on card with room for a hinge either side, then trimmed as required.

slightly lower down the back on paper compared to cloth covers. When fully printed, the covers would be formed to different dimensions as appropriate to paper or cloth, with a fold always at the top edge of the wavy red border.

Medallion

The Ordnance Survey medallion based on the Royal Arms with the monogram GviR was hand lettered using flowing tails to the Rs of 'Ordnance Survey' in the style of 'ONE-INCH MAP' below. To the top left on the cloth map cover were the words 'National Grid' which were added later by overprinting; this can be sensed by feeling the impression of the words in the card, a subjective test that is not convincing in all cases. For the hand lettered paper and dissected covers 'National Grid' is not impressed in the card but flush; these are thought to have been printed at a later date when these words had been included on the block. The monogram was changed from GviR to GR when it and 'Ordnance Survey' in the medallion were changed to resemble letterpress in order to blend with the typeset cover. GR in the cover medallion lingered on after King George VI died on 7 February 1952 because sheet 149, *Colchester*, edition 1302, issued in 1953, was seen with the last GR cover, KA5.7. At this stage, GR was removed but ER was not inserted; this aspect of the medallion was left blank despite some Sixth Edition maps having eight more years to run.⁸

Title

Titles on the front cover were in block capitals. The sole exception observed was sheet 165, edition 16046/Cr on cloth in cover KA3.3 with 'Weston-super-Mare' in lower case, as was a paper KA3 seen on eBay. On hand lettered covers, London, N.E. had a comma, as did London, S.E. which was omitted on letterpress covers. This trivial point is the only title change observed through the life of the Sixth Edition. Compositors strove to produce typographically attractive covers despite the varying lengths of titles which had to be accommodated such as York and Montgomery and Llandrindod Wells. The ampersand or 'and' was selected at will to improve the effect, as were narrower and shorter fonts and a two-line layout. Where the title was two lines, the sheet number, sketch map and price line were all moved down the cover to balance the layout and, incidentally, demonstrate that the price line was printed with the sheet-specific data. When the front cover design was amended to de-emphasise 'New Popular Edition' by setting it in smaller type, the titles were made up with a slightly different font, most noticeable in the 'A' which has a straight pointed apex and the 'E' which has less pronounced serifs. The ampersand, which had been of rococo flamboyance where space allowed, became more sober. 'National Grid' beside the medallion was reduced from 29 to 26 mm long. The font for the spine was unchanged.

Sheet number and sketch map

The sheet number of group KA1 covers was in lower case italics and was hand lettered in the sole case of sheet 161, *London*, *N.E.* on cloth, '*Sheet*' having a descending flourish on the tail of the 'h' and '161' having an opposing rising flourish to the '6'. The dissected cover bore letterpress *Sheet 161* (paper cover not seen). Upright capitals were used for the sheet number line on letterpress covers until lower case upright was adopted, when some have a slightly

⁸ See also Richard Oliver, *Sheetlines 52*, 6-12 where the medallion is put in the context of other OS trade marks.

smaller font than others, not singled out as a separate variant. Broadly speaking, there is a north-south divide on this point.⁹

Group KA2 covers for the eleven sheets with three-box frames and group KA3 covers for the other sheets were used concurrently until the old sketch maps had been redrawn. The variants in the two groups correspond (see table). A detailed study of sketch maps is in progress and will be reported in due course.

3-Box frame variant	2.1	2.2	2.3	2.4	2.5	2.6	2.7
Corresponding 2-box frame variant	3.2	3.3	3.4	3.6	3.7	3.8	3.9

Spine

Paper map covers were initially folded without a flat spine. When this feature was introduced it was 4 mm wide. Cloth covers had an 8 mm spine. Printed spines read, viewed from the back, '1" 6th Ed.', which was changed to '1" 6th Edn.' for letterpress cover spines, followed by the sheet name and number, using Caslon type.

Index diagram

The hand lettered cloth covers were printed with an index diagram showing the intended 190-sheet New Popular Edition (illustrated without an inset in Oliver, *op. cit.*) The locations of Cambridge and Monmouth were indicated. This was concealed for publication by pasting on an index diagram showing the New Popular and Scottish Popular sheet lines and numbers. It was overprinted in red with the 100 kilometre grid, which added to its complexity and contributed very little since the grid was shown again inside the cover. The diagram was printed directly on the card for paper and dissected hand lettered covers and all letterpress covers. The red grid numbers were modified in about 1948 by prefixing N to the square references for the Orkney and Shetland Islands to make them unique; this was explained inside the cover at the same time and no doubt greatly reduced the number of yachtsmen gathering at Scapa Flow for Cowes Week. When 100 kilometre grid references were changed from numbers to letters, the red grid was removed from the New Popular index, making it much clearer. The diagram was replaced later by an interim version of the Seventh Series index. The title to the index was invariably "ONE-INCH" ORDNANCE MAPS OF GREAT BRITAIN. The various states of the index diagrams displayed a few regrettable errors.

(i) Scottish Popular sheet 89

As shown in the tables, there was an intermittent appearance of sheet 89 in the Scottish Popular section of the index. Like the Cheshire cat in *Alice's Adventures in Wonderland*, whose grin was all that was seen, the number 89 was visible but it had no sheet lines. It was not issued in a National Grid version and was no longer available for sale, having been withdrawn from the Scottish Popular series because the New Popular edition covered the area on sheets 75 and 76.¹⁰

⁹ Thanks to Peter Gibson for drawing attention to this.

¹⁰ Roger Hellyer, Ordnance Survey small-scale maps, indexes: 1801-1998, Kerry: David Archer, 1999, 54.

(ii) North York Moors hatching

The black hatching denoting the overlap of sheets 86 and 92 was lost on variant KA3.10 and again from 4.4 in about 1950 through until the Seventh Series index was adopted on variant 6.2. The loss was accompanied by incomplete hatching north of Dundee and an incomplete sheet line for Scottish Popular sheet 92. The lack of hatching in Yorkshire, this time in red, was also apparent on the first Seventh Series index printed on Seventh covers RO1a and RO1b. It was rectified for RO2a, the latter being the version of the Seventh index that was used on the back of New Popular covers.

(iii) Isle of Man

Every index diagram on the New Popular covers showed the Isle of Man as sheet 87. This sheet was a fiction until issued in the Seventh Series in March 1958. Manxmen were, however, able to purchase Popular Edition, Second War Revision sheet 17 with War Office Cassini Grid, (with National Grid from 1950).

(iv) Cockneys and Cornishmen deceived

The final index diagram on the covers served to publicise the Seventh Series. It showed the planned Seventh Series London overlaps but not those in Cornwall. In order to confuse Londoners, this index was printed on New Popular covers from 1955 when London New Populars were still on sale (well before the first Seventh Series London sheet using the new sheet lines and overlaps, 161, *London N.E.* was issued in March 1958).

So far as the Cornish overlaps are concerned, the New Popular sheets in question were among the last to be replaced by the Seventh Series, in 1961. Maybe to avoid confusing the New Popular customer again, the index diagram showing the new Cornish sheet lines, which appeared on Seventh covers from 1956, variant RO2b onwards, was never used on the New Popular cover.

Therefore from 1956 to 1961 the two series bore different Seventh indexes, both with note 3, which stated 'The sheet lines and numbers of the New Popular Edition of England and Wales are the same as those of the Seventh Series'. The printing of the inaccurate Seventh index on New Popular covers despite the concurrent accurate index on Seventh Series covers, together with note 3 were misrepresentations at the level of detail, though in a broad-brush sense they were excusable.

Text below the index

The lines of text below the index are of several forms and are given here in a logically plausible chronological order. The first was also the version printed *above* the 190-sheet New Popular index that was hidden on KA1.1 to 1.4.

- One line on the pasted back cover sheet -
 - Published by Authority of the Ministry of Agriculture and Fisheries.
- Two lines on the pasted back cover sheet -

The open figures in RED represent the 100 km. squares of the National Grid Published by Authority of the Ministry of Agriculture and Fisheries

- Two lines as above directly printed on the card, used through to KA5.2.
- KA5.3 and 5.6 have five lines of text –

The open figures in RED represent the 100 km. squares of the National Grid.

Printed and published by the Director General of the Ordnance Survey,

Chessington, Surrey, by authority of the Ministry of Agriculture and Fisheries.

Obtainable from officially appointed Ordnance Survey Agents and from most booksellers.

Crown Copyright Reserved.

• KA5.4 to 6.1, except 5.6, have five lines of text –

NOTE:- Orders for maps should specify "England & Wales" or "Scotland."

Printed and published by the Director General of the Ordnance Survey,
Chessington, Surrey, by authority of the Ministry of Agriculture and Fisheries.

Obtainable from officially appointed Ordnance Survey Agents and from most booksellers.

Crown Copyright Reserved.

KA6.2 to 6.6 have five lines of text –

NOTE – These maps are obtainable from Ordnance Survey Agents and from most booksellers.

Crown Copyright Reserved.

Printed and published by the Director General of the
Ordnance Survey, Chessington, Surrey, by authority of the Ministry of Agriculture, Fisheries and Food

National Grid explanation

The hand lettered cloth covers were blank inside as noted in Oliver, *op. cit.*, with text pasted on, using the terms "Four-Figure" and "Full Four-Figure" to describe the grid references limited to kilometre squares. This text was subsequently printed directly on the card. Soon the above terms were changed to "Normal Kilometre" and "Full Kilometre" and the paragraphs were changed from (1), (2) and (3) to (a), (b) and (c). A font change then led to a different layout of the text and, later, the same text was reset, twice. The layouts are identified in the tables of variants by reference to the words falling below diagram II. The situation is complicated further by alterations to the stroke used to demonstrate the curtailment of grid references. The angle changed progressively from / to | to \.\frac{11}{1} At an early stage in the life of the series, a paragraph explaining the use of the prefix N for grid references for the Orkney and Shetland Islands was inserted in the grid description. All these changes led to a proliferation of variants.

The late covers with the New Popular index printed without the red 100 km squares and the even later ones with the Seventh Series index on the back had a new explanatory text 'The National Grid & Reference System' on the upper half of the inside cover and a diagram showing the 100 km squares with letters (and figures) on the lower half, the latter just as inside the contemporaneous Seventh Series covers. In about 1956 the colour of the inside of the card became yellower. Changes to the text, with approximate dates, are as follows:

- 'His Majesty's Stationery Office' became the bisexual 'H.M.S.O.' in 1952,
- 'letters which are now replacing the figures.' became 'letters which have replaced the figures.' (dated from August 1958 on Seventh Series covers),
- the price of the H.M.S.O. booklet was raised from 1/3 to 1/6 (dated from mid-1960 on Seventh Series covers).

Deletions are classified as | using the inclination of the first. Subsequent cancellations on the text may slope towards /. The position of the stroke on the text can vary, occasionally being well off target; it was therefore produced by a second pass through the printing machine, at least at first. Subsequently, the text and cancels may have been printed in one pass by lithography. Covers with the deletion strokes displaced should not be counted as new variants but as flawed examples of the intended variant.

Hinges

Some of the variants in groups KA2 to 5 had some covers with an all-red front hinge while several variants sometimes had single or double red longitudinal strips on the front hinge (see accompanying table).

Variant reference	2.5	2.7	3.6	3.7	4.3	4.4	4.6	5.1	5.2
No. seen all-red	2	2	7	4	1	5	1	5	17
Total seen in variant	11	3	64	16	7	39	6	30	61

A very few all-red front hinges bore the word 'GRIPPER' in cream, one seen in KA2.5, three in 3.6 and one in 3.7 (variants 2.5 and 3.7 are concurrent). It denotes the edge of the card to be inserted in the press for later overprinting of the black general data. ¹² 'GRIPPER' would be scarce, being present once on large sheets of card printed with multiples of the cover design. To print covers in eights, with 'GRIPPER' along one front hinge, there would need to be two covers sideways along the long edge of a sheet of card, four deep, on Double Demy, 35 x 22½" going in the press by the long edge. A mysterious front hinge phenomenon was the appearance of '10A' printed in black on the KA6.1 covers of cloth maps (10 instances seen).

The earliest date code reported on a Seventh Series cover is 9.56 and New Popular cover date codes would appear to have been initiated at the same time. They were printed on the rear hinge (not on the front hinge as for the Seventh Series) in a variety of formats and some were inverted. The extremes of dates seen on variants are as follows. Note the overlap, possibly due to stocks of covers printed with general data used out of order. Not all covers in a variant were coded and none was seen on the last variant, KA6.6.

Variant	Earliest date	Latest date
6.2	9.56	1.58
6.3	4.58	4.58
6.4	4.58	8.60
6.5	6.60	10.60

Conclusion

The result of this study is a list of cover variants put in an order, hopefully chronological, based on evidence and the desire to credit the Ordnance Survey map covers devisers with implementing logical stepwise changes. Whether this order is inherent or imposed remains an open question.

New Popular covers, though superficially similar, are revealed as a complex group due to the number of changes, some intended and some accidental, made to several features at various times. It is this complexity that gives interest to the study of the cover – how bland they would have been, how disappointing as a challenge to collector and student, had homogeneity and order been the rule.

¹² Thanks to Richard Oliver for explaining 'Gripper'.

Variety's the very spice of life, That gives all its flavour.

William Cowper, The Task.

Disclaimer and acknowledgements

The author has studied 170 covered maps in his collection, 380 in the Messenger Collection and 140 owned by the Cambridge University Library. Thanks are due to Anne Taylor and her staff for providing ample access and for bemused tolerance while the 520 maps at CUL littered their Map Room, also Peter Gibson who has kindly reported to him in detail on his collection of 270 maps. Richard Oliver has provided advice and encouragement throughout and studied a late draft of this text, which was improved as a result. Errors and omissions should be attributed solely to the author, who now passes the baton to anyone wishing to correct them.

Group KA1 Three-box sketch, hand lettered

	1.1	1.2	1.3	1.4	1.5
National Grid impressed	Υ	Υ	Υ	Υ	
Sheet & No. by hand	Υ	Υ			
Paper price in words					2/-
Cloth price in figures spread out	2/6	2/6	2/6	2/6	
Dissected price in words					4/6
Index pasted on	Υ	Υ	Υ	Υ	
Red sheet 89 in index	Υ		Υ		
Published by only. No red figures description	Υ		Υ		
Red figures description, Published by		Υ		Υ	Υ
Inside pasted in with text "FOUR-FIGURE", "FULL FOUR-FIGURE". Sections (1), (2), (3).	Υ	Υ	Υ	Υ	
Direct printed text "FOUR-FIGURE", "FULL FOUR-FIGURE". Sections (1), (2), (3).					Y
Publication date	45	45	45	45	45
Number seen	1	1	5	5	2

Y - the features of the cover variant.

Price shown where example seen.

Common features of Group 1 – GVIR in medallion, 'Sheet' in italics, sheet name below number, no date of Publication or Revision, red grid over index, no N for Orkney & Shetland, 86/92 hatched on index, 'Ed.' on spine, not 'Edn.', paper spine not printed, no tan card inside, no reference inside to Orkney & Shetland Islands, cover trimmed to size of folded map.

Group KA2 Three-box sketch, letterpress

	2.1	2.2	2.3	2.4	2.5	2.6	2.7
Paper price	2/3	2/3	2/3	2/3	2/3	2/3	2/3
Paper spine printed					Υ	Υ	Υ
Cloth price	3/-	3/-		\rightarrow	3/-	3/-	3/-
Dissected price	5/-	5/-		\rightarrow	5/-		
Red sheet 89 on index			Υ				
Tan card inside						Υ	
Direct printed text "FOUR-FIGURE", "FULL FOUR-FIGURE". Sections (1), (2), (3).	Υ						
National Grid deletions / 'may be omitted, thus:' below diagram II	Y						
National Grid deletions / 'omitted, thus :–E538932,' below diagram II		Υ	Υ				
National Grid deletions 'omitted, thus :-E538932,' below diagram II				Υ	Υ	Υ	
National Grid deletions \ 'E538932, N177061 will' below diagram II							Υ
Orkney & Shetland reference inside			Υ	Υ	Υ	Υ	Υ
Latest publication date	46	7.48	7.47	3.48	49	7.48	7.49
Number seen	13	18	5	2	11	6	3

Common features – GR in medallion, 'SHEET' in block capitals, New Popular Edition in wide format, all prices in words, publication year (and revision data when present on sheet), red grid over index (with N for those covers with a note inside about Orkney & Shetland), 86/92 hatched, red figures description and 'Published by...' below index.

→ KA2.4 is a paper variant only, use 2.5 for cloth and dissected map covers.

Price shown where example seen.

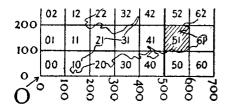


Diagram II.
may be omitted, thus:

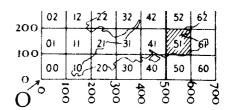


Diagram II. omitted, thus:—E538932,

Variants may be distinguished by the text appearing under Diagram II on the inside cover.

This page shows the two earliest formats.

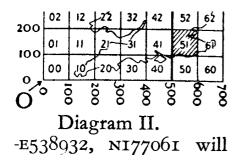
Group KA3 Two-box sketch, 'New Popular Edition' in large print, 'sheet nn'

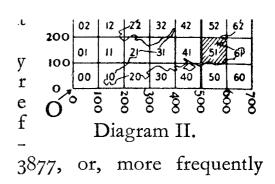
	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10
Paper price		2/3	2/3	2/3	2/3	2/3	2/3	2/3		
Paper spine printed							Υ	Υ		
Cloth price	2/6	3/-	3/-		3/-	3/-	\leftarrow	3/-	3/-	3/-
Dissected price		5/-	5/-		5/-	5/-	\leftarrow			
Red sheet 89 on index				Υ	Υ					
86/92 overlap not hatched										Υ
Tan card inside								Υ		
"FOUR-FIGURE", "FULL FOUR-FIGURE" version with sections (1), (2), (3).	Υ	Υ								
National Grid deletions / 'may be omitted, thus:' below diagram II	Y	Υ								
National Grid deletions / 'omitted, thus :-E538932,' below diagram II			Υ	Υ						
National Grid deletions 'omitted, thus:-E538932,' below diagram II					Υ	Υ	Υ	Υ		
National Grid deletions \ 'E538932, N177061 will' below diagram II									Y	Υ
Orkney & Shetland reference inside				Υ	Υ	Υ	Υ	Υ	Υ	Υ
Latest publication date	45	46	5.47	9.47	48	5.49	49	11.47	7.49	47
Number seen	5	11	69	24	49	64	16	23	12	1

Common features – dates of publication & revision, red grid over index with N for those covers with a note inside about Orkney & Shetland, red figures description and Published by... below index.

← KA3.7 is a paper variant only, use 3.6 for cloth and dissected map covers.

Price shown where example seen.





The two later formats for the text under Diagram II on the inside cover

Group KA4 Two-box sketch, 'New Popular Edition' in large print, 'Sheet NN'

	4.1	4.2	4.3	4.4	4.5	4.6
Paper price		2/3	2/3	2/3		
Paper spine printed		Υ	Υ	Υ		
Cloth price		3/-	3/-	3/-	5/-	5/-
Dissected price	5/-			5/-		
Price 'Net'						Υ
Red sheet 89 on index	Υ					
86/92 overlap not hatched				Υ	Υ	Υ
National Grid deletions 'omitted, thus :-E538932,' below diagram II	Y	Υ				
National Grid deletions \ 'E538932, N177061 will' below diagram II			Υ	Υ	Υ	Υ
Latest publication date	7.49	11.47	7.49	51	5.50	50
Number seen	2	3	7	39	1	6

Common features – dates of publication & revision, red grid over index with N with note inside about Orkney & Shetland, red figures description and Published by... below index, no tan card.

Price shown where example seen.

Information on category KA4.5 by Peter Gibson.

New Popular Edition ONE-INCH MAP of ENGLAND & WALES SALISBURY

SHEET 167

Published

O Melksham
O DEVIZES

QUpavou
Ludgershillo
Wylye
Wilton
Wilton
CEALISBURY

New Popular Edition

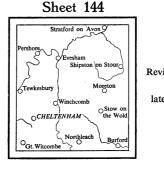
ONE-INCH MAP

of ENGLAND & WALES

CHELTENHAM

and EVESHAM

First Published 1946



Revision Full 1930 with later corrections

Front cover: (left) Three-box sketch, 'New Popular Edition' in large print, 'SHEET' in capitals and (right) two-box sketch, 'New Popular Edition' in smaller print, 'Sheet' partly lower case. In both 'ONE-INCH MAP of ENGLAND & WALES' is in red.

1940

Group KA5 'New Popular Edition' in small print, GR in medallion.

	5.1	5.2	5.3	5.4	5.5	5.6	5.7
Paper price in words, Net	3/-	3/-	3/-			4/-	4/-
Cloth price in words, Net	5/-	5/-	5/-	5/-	5/-		6/6
Dissected price in words, Net							
Red grid lines with N	Υ	Υ	Υ			Υ	
The open figures <i>Published by</i> (2 lines)	Υ	Υ					
The open figures (5 lines)			Υ			Υ	
NOTE:- Orders (5 lines)				Υ	Υ		Υ
National Grid deletions \ 'E538932, N177061 will' below diagram II	Υ						
National Grid deletions \ '3877, or, more frequently' below diagram II		Υ	Υ			Y	
Orkney & Shetland reference inside	Υ	Υ	Υ			Υ	
National Grid & Reference System inside				Υ	Υ		Υ
His Majesty's Stationery Office, booklet 1/3				Υ			
H.M.S.O., booklet 1/3					Υ		Υ
Latest publication date	51	51	52	52	52	52	53
Number seen	30	61	30	19	6	3	25

Common features – dates of publication & revision, paper map covers have spine printed, no red sheet 89, 86/92 overlap not hatched, no tan card.

Price shown where example seen.

Information on category KA5.6 by Peter Gibson, which is an interruption to the logical progression, a KA5.3 cover at a 5.7 price, probably due to the use of old covers pre-printed with general data.

The reference becomes \$\overline{5}3893/2 \qquad \text{N17706}\text{1}

The reference becomes : # 38932 \$ \$ 17706 #

The reference becomes: - x538932 Nx7706x

Inside cover: explanation of National Grid shows deleted characters by (top) a forward stroke, /, (middle) a vertical stroke, |, or (bottom) a backward stroke, |.

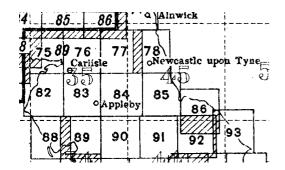
Group KA6 'New Popular Edition' in small print, no GR in medallion.

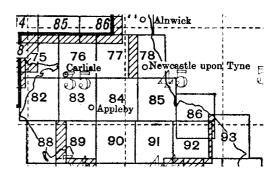
	6.1	6.2	6.3	6.4	6.5	6.6
Paper price	4/-	4/-	4/6	4/6	4/6	5/6
Cloth price	6/6	6/6	7/-	7/-	7/-	7/6
Dissected price		DX	DX	DX	DX	DX
86/92 overlap not hatched, red grid with N over index	Υ					
Seventh Series index on back		Υ	Υ	Υ	Υ	Υ
NOTE:- Orders (5 lines)	Υ					
NOTE - These (5 lines)		Υ	Υ	Υ	Υ	Υ
H.M.S.O., booklet 1/3	Υ	Υ	Υ	Υ		
H.M.S.O., booklet 1/6					Υ	Υ
'which have replaced the figures' above grid diagram				Υ	Υ	Υ
Latest publication date	55	57	57	59	59	59
Number seen	49	37	1	31	7	3

Common features – dates of publication & revision, paper map covers have spine printed, no red grid lines or sheet 89 on index, National Grid & Reference System inside.

DX Dissected version withdrawn 1955.

Price shown where example seen.





Back cover: index diagram shows (left) Scottish sheet number 89 in red italic print and the overlap of English sheets 86 and 92 hatched; (right) no number 89 and no hatching.

Cultures of everyday map collecting

Chris Perkins

The author is a senior lecturer in the School of Environment and Development, and university map curator, at Manchester University, where he may be contacted at C.Perkins@manchester.ac.uk. Chris was the invited speaker at the 2006 Charles Close Society AGM and we are most grateful to him for preparing this edited version of his talk for publication in Sheetlines.

The map stands as an icon for geography, but has been strangely absent from the critical literature emerging around collecting. Yet the process of collecting has been important throughout the history of cartography. Its practices, politics and poetics have been socially mediated and are 'placed', 'timed' and 'cultured'. This presentation at the Charles Close Society AGM explored contemporary contrasts in cultures of map collecting. It reported on case study-based research into the nature, meaning and geographies of two very different collecting cultures: antiquarian and more everyday activities, such as those concerning the membership of the Charles Close Society. Here I summarise some of the findings as they relate to the Society.

Introduction

Almost all collecting can be seen as *artefactual* and *fetishistic*: the collectable map is the artefact of desire to its collector just as much as the item of cricket memorabilia or the antique chair. Map collectors *specialize* on part of the complete collecting field. They want but fear *completion*, and pursue a *systematic* activity with a goal in mind. Many collect for *investment*. Commonly shared metaphors about collecting as a pastime apply just as much to map collecting. For example the notion of collecting as a *disease*, or as a form of *therapy* has been frequently employed and is also a common theme in the literature of map collecting. The most serious map collectors are *obsessed* and driven by the pastime. The *need to acquire or control* and the *quest for perfection* emerged frequently amongst my interviewees, who often recognised the *addictive nature* of the pursuit, and also the *pleasure of the hunt*. An *aesthetic appreciation* is shared by many collectors including those who focus on mapping. And many map collectors acquire material for its *historical interest*.

But what is unique about people who collect maps and what difference might a map make to collecting?

All maps are spatial representations of some real or imagined world. These spatial properties allow people to draw metaphors between map collecting and the process by which geographical knowledge itself becomes established in mapping. The hunt for maps can be cast as a quest analogous to the history of cartography itself. Since maps almost always depict places, collectors very often choose to focus on place as their collecting specialization: beginners' guides all emphasize place as the first factor to consider. For many collectors the map becomes a *souvenir* of the place. Unlike most other collected objects maps visually embody the place that they represent.

Many maps have been designed with practical ends in mind, as tools to serve particular needs to inform, locate, navigate, orient, measure, compare, monitor change or establish relationships. They store information about the world. Place becomes translated and 'carried' in the map. Maps employ a kind of language to code the world. They present the world in a

pictorial form: many can be seen as works of art. Knowledge of the medium and its history may be required in order to understand the collection. The conservation challenges of older material also demand a form of disciplined knowledge and practice. However the format of the map is not always convenient for the collector. Wall maps need an appropriate space to hang, atlases pose storage problems for librarians and exhibition space for mapping is more like the space needed for fine art rather than the museum cabinet often associated with other useful technologies. So the format of the medium creates its own collecting spaces and particular challenges.

Maps also reflect, constitute and influence the values of the society in which they were created, read and employed. They often carry complex cultural associations. The same map may mean very different things to different people, depending upon the context and on the information with which it is associated. Its symbolic role may be very different from its social function or practical rationale. Collecting changes the role of the map: the image may come from one time or culture, but the collector is unlikely to live in that time and meanings change. Western maps may appear to show everything, to offer a neutral view from above that suggests objectivity and almost stands for science. In practice they are capable of conveying authority, confirming the subjective, or affirming the cultural taste or place associations of the collector. They speak about our identities as well as working as tools.

To summarise: it is increasingly accepted that the map may be both a form of useful knowledge but also a contested text and that many different kinds of map have been employed in diverse contexts. So it is perhaps unsurprising that map collecting as a set of practices is associated with many *different* kinds of spaces, and that collecting practices need to be placed in context, and understood in relation to particular ways of seeing and technologies of production and display. The spatial elements of mapping may be distinguished from other collected objects, but technological change has created artefacts within the field of map collecting that are inevitably valued in *different* ways and associated with *different* institutions and artefacts. These differences are charged with cultural meaning that changes over time.

The collecting field of the Charles Close Society

How do the interests of the Charles Close Society fit into this broad generalization?

In the 1970s and partly in response to inflating prices of antiquarian material a growing number of people became interested in collecting Ordnance Survey mapping. A growing literature encouraged interest in mass-produced mapping, initially as source material for historical studies. Societies and specialist collecting organizations were formed to foster knowledge of the collecting field. In the UK the Charles Close Society for the study of Ordnance Survey maps (CCS) was established in 1980, ostensibly to encourage the serious study of the history of the national survey and its products, and in practice increasingly to meet the needs of a growing collecting market. Four key generalizations summarize my findings about the motivations of Charles Close members as everyday collectors.

1. Completing the sequence

Many collectors of everyday maps choose to focus upon one area. For some the collected map is a focus for recollection, for an autobiographical glimpse into past experiences in that place. However many everyday map collectors merely aim for a complete collection of maps of their chosen topic. This quest for completion seems to be much more significant for

everyday collectors than in the antiquarian field: systematic matters predominate for many, rather than aesthetic or evaluative concerns.

Many more maps are accumulated than may be possible for antiquarian collectors. A survey of CCS membership in 1993 revealed that 90% of members held collections of over 100 maps, with 30% holding more than $1000!^1$ To many CCS members the beauty lies in the detailed but tiny differences. Collectors trace and list different states of OS coverage. Many monographs have been published by CCS to disseminate the results of this research. The experts in this everyday collecting field are the collectors themselves, rather than academics or the trade.

2. Not so much a trade ...

The ready availability of mapping and limited number of specialist collectors mean little money can be made from everyday collecting. As a consequence the trade in OS coverage is much more limited than the antiquarian map trade. The CCS maintains a list of dealers in second hand Ordnance Survey maps that documents thirteen specialists trading in second-hand OS material.² Only five of these specialists run web sites, and only one trader maintains significant stock and specialization. Very few of these 'dealers' seem to be making much money from buying and selling OS coverage. Instead they are informal operations, often run from home and on a part-time basis. The 'trade' in second-hand OS mapping is much more in the control of the collectors themselves, or else part of other trading places. Maps are sought from general second-hand book dealers, at auction, from car boot sales, charity shops, jumble sales and from other collectors. A relatively small community of collectors meet to swap or discuss collecting interests or request mapping via e-mail. Deals matter less than knowledge.

Everyday collecting space appears much less regulated than antiquarian collecting. Few edicts for new collectors are published. Instead it is assumed that they will progress through love of their collecting to appreciate the importance of a serious concern with the history of the artefact.

3. Serious history?

Everyday collectors mask their systematic interests in the dressing of historical study. Proudly displayed on the CCS web site is a quote from the early constitution of the Society, which welcomes potential members with the statement that 'although the role of serious study in the Society's activities is emphasised, do not be put off by this if your concern is of a more relaxed nature – the curiosity of the casual collector is most welcome for it often prompts the unanswerable question for someone to work on'. The Society now has over 500 members, and the majority of these are probably 'casual collectors', rather than being concerned with 'serious study'. A substantial and very active minority work on questions in a serious way or publish extensively, with a surprisingly large number of participating by writing for Sheetlines. The serious work of advancing historical knowledge is reflected in other aspects of the social activities of the society.

¹ G Jarvis, 'Membership questionnaire: an analysis of your answers', Sheetlines 38 (1994), 44-46.

² Charles Close Society, *Dealers in secondhand Ordnance Survey maps*, London: CCS, 2004.

³ Charles Close Society, *About the Charles Close Society*, London: CCS, 2005. This is available from http://www.charlesclosesociety.org.uk/about.htm.

⁴ Issues so far include significant contributions from over 150 different members, with many others offering descriptions of maps, or letters.

At first glance the nature of CCS social activities appears to be similar to programmes of antiquarian map collecting societies. CCS members hold regular meetings, organise visits, publish a newsletter and operate an Annual Map Market. Visits are much more serious and practical than the cultural frippery of antiquarian collecting societies. Regional groups meet on a regular basis to swap maps, share stories of research progress or visit an appropriate institution holding copies of mapping. Activities in CCS collecting spaces also differ. They are much less about individual treasures, 'discovery' and possession. Instead they emphasize recounting progress of 'work'. A CCS Map Market is a commercial space, where exchange of material amongst collectors takes place. *Sheetlines* emphasises the detail of the pastime, rather than the social context of members' participation. Even its style reflects the membership: it is packed with detail, and published in black and white, almost cut-price in comparison to much more lavish antiquarian publications. Lists and research articles predominate.

4. The focused masculine collecting space

CCS comprises an altogether much more stereotypically male set of activities and discourses than the world of antiquarian collecting. For most members beauty is less important than investigation, listing matters and serious research predominates over wider markers of cultural taste. Most members rely upon *Sheetlines*, or online discussion groups for their social contact around collecting.⁵ CCS surveys suggest over half of members rarely attend meetings: a small hard core of members travel anywhere to meetings but the majority prefer more local events or do not participate at all.

This rather more individual and asocial focus is a reflection of the membership profile of the organization: the overwhelming majority of CCS members have always been male: there has never been more than around 15% female membership. Amongst individual collecting members (as against those with a work-related interest such as map librarians) there has always been an even greater gender imbalance. By and large it is the men that turn up to CCS meetings, the men that write almost all the articles, and the men who rifle through the boxes of one-inch OS maps at car boot sales. The social range of membership also differs from antiquarian collectors. A wider range of people join CCS: wealth is not a factor limiting access to this collecting field. The world of everyday mapping is gendered and classed differently from that of the antiquarian collector, and with different social practices.

Conclusions

During the presentation members of the audience reacted to these provocative generalizations about the nature and motivations for all of our collecting behaviour! Most members probably accept that the world of the everyday collector is altogether less aspirational than that of antiquarian collectors. Maps are cheaper and easier to acquire and the detail of amassing and completing a collection becomes more important. Everyday collecting is much less regulated and the trade in maps is less of a business. Collectors develop their own highly specialist knowledge, rather than relying upon expert opinion, and historical research is often seen as the rationale for collecting. Collecting activities and spaces are more local, and everyday collectors are disproportionately male, with a much wider spread of social backgrounds.

What are your reactions to my findings?

⁵ Jarvis, 'Membership questionnaire'.

Charles Close Society annual general meeting 13 May 2006 Chairman's report

Venue

For the second time we meet in the delightful town of Ludlow, where Rodney Leary has once more smoothed our way to make the day a success. He has had an extra burden this year, which I think you will appreciate. But once again he has been helped by his wife and daughter, Gill and Kate, for which we are very grateful.

Where we stand today

Having completed 25 years successfully last November, marked by a meeting at the British Library in London, all members at that date should have received a commemorative print offered by the Ordnance Survey. We continue to benefit from their interest and support.

Joy (or relief) at having reached 25 years of existence has been tinged by sadness over the death shortly afterwards of Brian Adams, one of our Honorary Members. The movers and shakers in the Society quickly responded with tributes, the most enduring and widely appreciated one being the special publication *Projections and Origins: collected writings of Brian Adams* recently distributed to all members with the latest *Sheetlines*. I shall leave further comment on this to those most closely connected with it. You will be able to appreciate what a great loss to cartography and this Society Brian's death has been. We regret that Geoffrey Elliot and Neville Hausaman have also passed away during the year. Neville in earlier times had helped Richard Dean when editor of *Sheetlines*. However, we continue to grow steadily.

How we work

The Society could not function so well if it were not for the selflessness of members of the Committee and all those who have been persuaded to help in lots of different ways, guided by Committee ideas, discussion and decisions. My job would be impossible without all their combined efforts. I shudder to think of the total amount of time, spent freely and willingly, required to produce our considerable achievements.

The indefatigable Secretary keeps all of us on our toes. The Treasurer enjoys banking money and allowing us to spend it on publications. Our Editor has set standards which will be difficult for anyone else to maintain. He has been helped by all those who have contributed to *Sheetlines*. But its distribution has for some years been carried out by Chris and Cathy Bull. They deserve our hearty thanks for such a routine, but vital task. [Applause.]

Meetings have been arranged by Gerry Jarvis, who took to the task like ducks to his garden (an in-joke). He is in the process of handing over to a new member of the Committee, provided we elect him. Membership details are always up to date and available thanks to a very orderly approach. Publications are managed from the North of England with amazing dispatch. Our website attracts further members and advertises our existence worldwide. New posters and brochures have been prepared. Publications are coordinated by the hugely important subcommittee. Archives are well served by another subcommittee, which includes two stalwarts with decades of experience between them. They are assisted by the Map

Librarian of the University of Cambridge to whom we are forever indebted for housing a growing collection of OS material. This was only recently recognised by the OS as one of their places of deposit for Overseas Survey material. I want to thank Ian O'Brien publicly for his help in selecting material for preservation.

Unsung heroes?

No annual report would be complete without expressing our thanks to all who have written, or edited publications, or who help with meetings and events throughout the country and abroad. This of course includes all of you who have come to this annual meeting. Perhaps the draw of a members' map market has something to do with that. There are also those who display our brochures and give out information about us. It gives me great satisfaction to see here today the active core of the Society – a core membership which is proportionately larger than that of many such specialist organisations.

Chris Board

The formal minutes of this very successful AGM, and the annual accounts, appear in the Almanack. The treasurer, Nick Krebs, thanked Tony Meatyard for auditing the accounts and was able to report that the Society's finances were still healthy. Questioned on the level of our reserves, he explained that these had to be sufficient to allow us to publish books which were initially expensive to print or those, like the recent 'Projections and Origins', which were important to our objects, but might not cover their costs. David Parsons, chairman of the Publications Sub-committee, said that, while it was too early to give publication dates, work was in progress on a large volume on one-inch engraved maps, another substantial work on half-inch maps, and that we also hoped to publish a book based on Richard Oliver's DPhil thesis. He promised to consider a suggestion from the floor that the Society should spend some of its reserves in publishing reproductions of historic OS maps, as mused on by David Archer in Sheetlines 73.

Breaking off from his other duties of the day, Rodney Leary reported that membership had reached 566 at the end of the Society's year on 1 March and was now 585, up 35 on the same point last year, one member having persuaded the proprietor of his Ludlow B&B to join that very morning.

Gerry Jarvis gave his final report after several years as chairman of the Meetings Subcommittee. John Davies, having been duly elected to the committee, now takes over and will need all his undoubted energy and enthusiasm to match the impressive series of visits that Gerry has organised with all the attention to detail that befits a retired banker.

Roger Hellyer reported that the cataloguing of the current holdings of the Charles Close Society Archives would be completed shortly. He expressed his gratitude to the executors of Brain Adams's estate for donating Brian's research papers, with their associated maps and books, to the Society's archives.

The meeting concluded with the presentation of the Hodson Award to Chris Higley; a floral presentation to Chris and Cathy Bull, to mark their hours of quiet work in stuffing many hundreds of envelopes and distributing Sheetlines, and the display of Rodney Leary's 'extra burden', alluded to in the Chairman's report. This turned out to be a cake, splendidly decorated after the style of Ellis Martin, to mark the Society's 25th birthday. The cake was consumed after the appetizing pie and salad lunch ably provided by the Leary family and, suitably fortified, we assailed the members' map market.



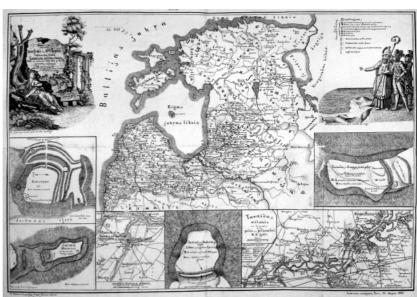
The 2006 AGM at Ludlow

David Webb's pictures show Rodney Leary (on right) presenting the 25th birthday cake to founder members Chris Board, Brian Garvan and Andrew Cook, while (below) Chris Board thanks Sheetlines distributors Cathy and Chris Bull.



Images of Riga

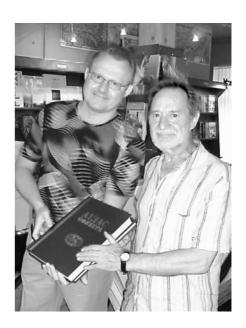




At the National Library of Latvia, Anda Zālīte (above left) explained the long tradition of Latvian cartography; this splendid example (above right), in the Latvian language, was printed in 1890. Maps of all eras were on display for us in the reading room (below).







Jāņa sēta

At the Jāṇa sēta map shop Janina Bluma stands beside a section of the globe constructed from Soviet relief maps. Our hosts were all very generous to us, not just with their time; Jāṇa sēta provided liberal Līgo refreshment while Aleksandr Lesment of Eastmap in Tallinn (above right) presented John Davies with this Soviet officers' atlas.

The new Jāņa sēta publishing house (below) may look traditional but the cartographers there make good use of the latest technology.











The Latvian Geospatial Information Agency

Our visit to LGIA, currently housed in the old buildings of the former Soviet map factory no. 5, revealed both linguistic scholarship in the toponymy laboratory (above right) and modern cartographic technique (below) in this demonstration of the use of 3D imagery.



These images of Riga were taken by David Webb, Gerry Jarvis, Gerry Zierler and Chris Higley.

Expedition to Riga 20 - 24 June 2006

Alexander Kent

A trip to a Baltic capital is perhaps rather an odd place to start for a new member of the CCS, but the possibility of finding out more about the illusive origins of Uncle Joe's legacy of mapping and a chance to gain a unique insight into this former Soviet republic were simply too good to miss. Ten other CCS members agreed and, sometime during 20 June 2006, had assembled in the modern Hotel Valdemars (with or without luggage) to begin our Baltic cartoventure.

A busy schedule lay ahead for the next three days, with visits planned to the Latvian National Library, the commercial map publishers and distributors Jāṇa sēta (wherein lay the opportunity to browse through a huge variety of Soviet maps), the Latvian Geospatial Information Agency (LGIA), and the Museum of the Occupation of Latvia, combined with trips to the conifer-lined beaches of Jūrmala (once favoured by Soviet officers) for a dip in the Baltic Sea, a walk through a forested valley to the castle in Sigulda, and to top it all, the chance to participate in the national midsummer festival of Līgo.

The stroll in the morning sun through the old city of Riga felt like a walk through the heart of any Central European city: Gothic spires, colourful neoclassical facades, trams, and cobbled streets, but accompanied by many old timber buildings suggesting the geographical and historical links with Scandinavia. Visual clues to its past as a former Soviet republic were still present but fleeting; the obliteration of Cyrillic letters on some of the street signs being a subtle example. As two teenagers serenaded us while we sipped our coffee laced with the local favourite, balsam, in a nearby café, it was soon time to discover the story of Latvia in maps awaiting us in the National Library.

Visit to the National Library of Latvia in central Riga Anne Taylor

On our arrival at the National Library of Latvia on Jēkaba Str., near the main square in Old Riga, we climbed the stairs to the Cartographic Reading Room and were introduced to Anda Zālīte, Map Librarian, and her colleague Laura Putniņa.

The map collection is the largest publicly-available collection in Latvia and houses ca 32,000 map sheets plus books on cartography, tourist guides, etc. (In addition, some 700 older maps are housed in the Rare Books and Manuscripts Department, in the same building.) The Department of Cartographic Materials collects maps of all parts of the world, but naturally their great strength lies in maps of Latvia and the Baltic countries.

This was amply demonstrated by the selection of maps on display for us in the Reading Room where the tables were smothered. In addition to Soviet mapping, we were also able to look at maps of the area now known as Latvia from different periods, perfectly complementing the short talk that Anda had given on the cartographic history of Latvia. Of particular interest to many of us were the maps from an earlier period of national cartography – the first map of Latvia in Latvian was published in 1859; the first atlas in Latvian in 1861. National cartography has further developed since Latvia gained independence in 1990 – a topic we were to learn more about the next day.

Having spent some time looking at the maps, Anda invited us for a tour behind the scenes. Faced with ranks of neatly labelled plan chests full of Soviet mapping, it was not long before members of the group were asking if they could open drawers, and not much longer before maps were out on any convenient flat surface and the digital cameras in action! Complete coverage of Latvia had been achieved at 1:10,000, 1:25,000, 1:50,000 and 1:100,000 (and smaller) scales – all secret. It transpired that following independence, the National Library had acquired copies of the 1:10,000 Soviet maps (some of them scans since there had only been one copy) from the archive of the State Land Service and that some of the other mapping had been rescued before it was destroyed in the early 1990s.

We eventually decided that we must tear ourselves away and leave Anda and her colleagues in peace! We thanked them wholeheartedly for making our visit so thoroughly enjoyable and interesting and for making us feel so very welcome. Further information about the National Library and the Map Collection can be found via the Department of Cartography web pages at http://www.lnb.lv/eng/gen_inf/structure/cartography.htm. And if you would like to look at maps of Latvia produced between 1500 and 1800, look at the excellent images at http://data.lnb.lv/nba05/kartes/frame_anglu.htm.

On the way home, at the airport, some of us noted that unwanted currency donated by travellers was to be used to help fund a new building for the National Library – a fitting end to our journey.

Visit to Jāņa sēta map shop and publishing house in central Riga David Watt

The hot and steamy afternoon was given over to a two-centre visit to the Jāṇa sēta map shop and publishing house in central Riga. Jāṇa sēta ('John's place') began in 1992 as a development of an art gallery by a small group (most of whom still work for the company), led by Janis Turlajs, now Editor-in-Chief. Their first product was an A4-sized map of Latvia which they exhibited at the 1992 Frankfurt Book Fair and then at the 1993 International Cartographic Congress. There has been sustained development since 1992, initially based on their sales of Soviet mapping but now almost entirely maintained by their sales of in-house cartography and digital data covering the Baltic states, including town plans of cities in surrounding countries.

The visit began at their map shop at 83/85 Elizabetes iela korp 2: a beautiful, wooden, colonnaded building that has been painstakingly externally restored to its original late nineteenth century condition. The shop had been closed specially for us so there was plenty of room as we were welcomed by Mr Turlajs, Mr Aivars Beldavs and Mrs Janina Bluma, who were all founders of the company. Also in the welcoming party were Mr Aleksandr Lesment, who had travelled especially from Estonia and Mr Aivars Ratkevics, both of whom were keen to offer their first-hand knowledge of 'the Soviet time'. Mr Lesment presented John Davies with a copy of the two-volume Soviet Officers' *Atlas Mira* with its gazetteer. Was I jealous!

The shop is roughly the size of one floor of Stanford's London store and has the usual array of maps and guidebooks, but with an exceptional selection of mapping over the Baltics and Russia. However, it also contains Soviet topographic maps and city plans and some original historical mapping of the Baltic states. If you are ever in Riga, go!

Although exceptional refreshments were on offer (including food associated with the Līgo festival), the lure of maps was far too great and what followed was an international

version of the CCS AGM map market. Assistants rushed in and out of a rather chaotic stockroom with armfuls of Soviet city plans of the UK and other exotic fare, and soon there were bags of stuff all over and the till was ringing. As stamina flagged, we piled into the company minibus for 'Part Two'.

The 'cartography house' is situated at 119 Stabu iela. This fully air-conditioned, fivestorey facility was purpose built in 2002 and replaced the cramped and stiflingly humid workshops above the shop in Elizabetes iela, which have now been rented out. We were initially briefed (and offered juice and cake!) in the cool basement 'communal room' where the entire staff (40 in total, 25 of whom are cartographers) meet twice daily to discuss work and the world. Then the visit moved up the house through the warehouse (the floor area being rather miscalculated as it is only a third the size actually required!), sales (they 'badge' their mapping for many European map sellers, including PPWK in Poland), databases (they have created their own database of Latvian place names, independent of the work done at LGIA), map compilation (they have created their own database for the Baltic states but used, and significantly updated, HarperCollins databases elsewhere), field checking (around 40,000 km of roads, footpaths and even forest tracks are checked per month) and finally, proof reading (by one eagle-eyed lady!). The printing is done at the state cartographic agency, which houses the only large format colour printing facility in the country, as is the case in many other former Soviet republics. Lastly we moved to the company archive, the 'Holy of Holies', next to Mr Turlajs' office. All the while the offices were decorated with modern art, alluding to the origins of the company. It soon became apparent that there was a great camaraderie among the staff, the next communal event being Līgo in a couple of days.

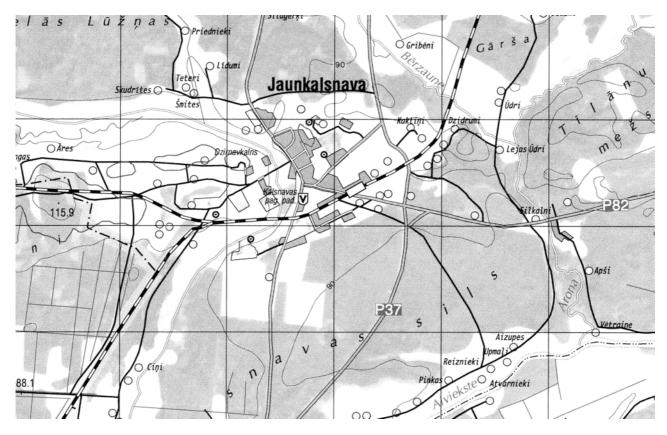
All too soon the visit was complete, but it was a great professional and personal pleasure to be able to visit people so dedicated to their company and a place which I had heard of for so many years, but which I had never had the opportunity to visit.

Visit to the Latvian Geospatial Information Agency (LGIA) Gerry Zierler

On the hot morning before the national midsummer holiday of Līgo, the CCS Riga tourists went to visit the Latvian Geospatial Information Agency (LGIA), a tram ride away from the old city in a leafy suburb of Riga. We were greeted by Mr Arnis Krišjānis, Councillor of the Deputy Director, who gave us the background to this relatively new organisation, formed only in January 2006 from part of the old State Land Service (VZD).

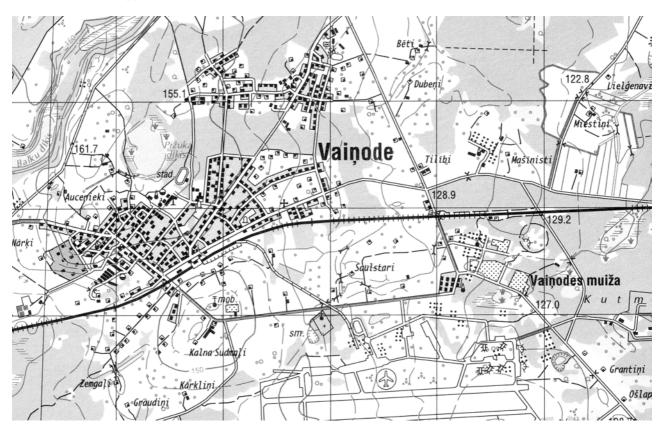
The LGIA has three divisions: Geodesy, Cartography, and Large-Scale Mapping, employing 347 staff, with eight regional offices. It includes a photogrammetry section, providing orthorectification at 1:10,000 and for sixteen cities at 1:2000. The CCS Soviet military map aficionados present were delighted to find out that the nineteenth century buildings had once been the home of Nivea Creme, and even more delighted that it had later become the USSR's Map Factory No 5. Here, the Soviet General Board of Geodesy and Cartography had been responsible for producing secret maps of other parts of the world, including Britain, at various scales ranging from 1:1M to 1:1000.

For five years after 1994, with help from Sweden, Latvia had been mapped anew at 1:50,000 using SPOT imagery and a second series, conforming to NATO standards with US technical support, is well underway. A new series at 1:10,000 has also been started, but even calling on the previous work done by the USSR, this was proving a big job. The visitors were delighted to be presented with a sample of each of these three series.



Latvian 1:50,000 mapping

Sheet 3433 Pļaviņas (above) shows the generalised nature of the first series produced after independence, which used satellite imagery. Isolated homesteads are marked by circles. Sheet 3141 Priekule (below), from the new series, is much more detailed, even depicting bunkers on the ?disused? airfield. © VZD 1999 & 2002. [A German WW1 Zeppelin hanger sited here was re-erected in Riga as a market hall, still very much in use.]



Our tour started with a visit to the Toponymy section, hosted by their manager, Vita, in delightful Latvian national costume, ready for the LGIA's own Līgo celebrations that afternoon. Fifteen staff (including field workers) interview officials and locals around the country to compile data on names in Latvian and in dialects such as Latgalean, which in future might appear in some maps as a second name. As well as an interesting range of gazetteers and other naming guides, examples of the inter-war 1:75,000 series were seen, and even Soviet "secret" maps that were used as a basis for notation.

Next, Aivars Liicis and his colleague Liene gave a dramatic demonstration of photogrammetry, complete with electronic goggles for viewing stereopairs and the land surface model. Here, Russian Microstation software is being used for the production of orthophotos. Heady stuff this, and even the experts regularly take a break from watching the countryside leaping upwards!

Deputy director of the Department of Cartography, Valdis Bērziņš, was next to describe his operations, and we saw work taking place on the military 1:50,000 M756 Series 2, now made compatible with NATO specifications. An interesting conversation took place on the legacy of Latvian mapping, with influences apparently felt from Russian, German and even Dutch mapping style over the centuries. One CCS member had his memory 'JOGged' at being shown the Latvian Joint Operations Graphics sheets, which bore the statement 'from the best available source materials'. Having had a hand in acquiring those 'best available materials', he was pleased to see the result of the Latvian updates, which were deemed to be excellent. This department was now also responsible for preparing aeronautical and special low-flying charts. We were presented with samples of the intriguing booklet *Specifications for topographic map in scale 1:50,000 second edition* published by the State Land Service in 2000, which came in later for detailed study and not a little unjustified mirth at an impromptu cartographic quiz à la OS flashcards. The wealth of symbology for wooded areas is fascinating and no doubt totally justified in a country whose timber is a major resource.

Our tour finished with a brief visit to plate preparation and to see the printing presses, where a modern Heidelberg was accompanied by two older East German Planeta Polygraph machines from USSR days, still going strong, producing not only the LGIA products but commercial maps as well.

Our thanks to Arnis Krišjānis and his LGIA colleagues seemed somehow inadequate after such a fascinating and welcoming tour, all given in excellent English. As we left, preparations for their own Līgo celebrations were in full swing in the hot sunshine, and we headed off, fully sated, for a train ride to the coastal resort of Jūrmala and a cooling dip in the Baltic!

Upon returning to Riga, we visited the Museum of the Occupation of Latvia. Here we learned about the various episodes of foreign control, the short-lived period of independence from 1918-1940, and life during the rule of the Soviet Union before the current state of independence began in 1991. The many stories of survival from the Gulags (where exhibits included letters made from tree bark and a violin made by inmates) and maps depicting the mass deportations, bore sombre testimony to the country's struggle through hardship and persecution.

The following morning, we boarded a train to the town of Sigulda (a few miles east of Riga) for a cable car ride over a surprisingly steep valley and a similarly steep walk that led to a castle dating from the early thirteenth century (where restoration work came complete

with wooden scaffolding). In the town, floral wreaths were being made up and sold as preparations were well underway for the evening's festivities.

The Latvia trip was timed perfectly to coincide with the midsummer festival of Līgo, and to our delight we were able to join in with the celebrations at a party arranged for us by Inta Baranovska and friends. The evening was always going to be one to remember, with cheerful Latvian women wearing floral wreaths offering wild-boar sausages and other delicious food, and with dancing all the while to Latvian folk music. The evening went on until the early hours, with singing around the village and back at the bonfire, where our hosts' beautiful and poignant folk songs were in turn contrasted by our strains of 'On Ilkley Moor baht 'at' and other ditties. While us CCS folk may not have been able to agree on the subtleties of pitch, all agreed that it had been a most entertaining and memorable evening.

Thanks to John Davies for arranging such an enjoyable and richly fascinating trip and for organising it all so superbly, and to all our hosts in Latvia for their most generous hospitality.

London Maps Gerry Jarvis

On 20 May a few London members gathered informally at the offices of Gerry Zierler to look at and discuss maps of London.

The meeting started at noon at the pub next door, where we enjoyed an excellent lunch, before moving into Gerry's offices for the afternoon. Gerry had put together a large selection of maps, which we examined and discussed, then other members followed suit.

The maps meeting drew to a close around 6 p.m., when I had to leave, but I suspect the pub claimed some of the members again.

An excellent way to spend a Saturday afternoon, and an encouragement for members elsewhere to get together with others locally. And I do not intend to explain how a member from Macclesfield qualifies for a London meeting!



Gerry Zierler and David Watt display a Soviet map of London printed on silk. (This picture was taken in the pub, not in Gerry's office.)

Visit to Alan Godfrey Maps

John Davies

This year Alan Godfrey Maps celebrates two notable achievements: its 25th anniversary and the appearance of its 2000th map. Alan Godfrey, himself a founder member of the Charles Close Society, hosted a visit by the society on 25 April to help mark the occasion.

On a sunny spring day, Alan conducted a tour of the premises, a former school building in the old mining village of Leadgate; led a brief exploration of the locality guided by the reprint of the 1895 25 inch map and gave an entertaining account of the history and methods of the company.

The company produces reproduction Ordnance maps of local areas. At the heart of the operation is the camera, a huge contraption with sliding back plate and a separate darkroom for the operator's controls, acquired second-hand from the printers to whom the work was once contracted. Two series are produced, reproduction one-inch maps and reductions of 25 inch (1:2500) maps.

Original maps, generally dating from mid-nineteenth century to the 1920s, are borrowed from libraries or other sources. Once photographed, as many imperfections and blemishes as possible are deleted from the negative. Printing from the photographic plate is subcontracted.



Alan Godfrey talks about his maps

Three further ingredients contribute to the success of the series; the front cover illustration, the historical notes and the directory extract. Cover pictures are carefully chosen to represent, as far as possible, typical contemporary views of the area depicted on the map. These are usually old postcards from Alan's extensive and growing collection. Historical notes, about 3,000 words of well researched local history, are provided by a team of about twenty regular contributors, including Alan himself, who writes about twenty a year. The extracts from a local trade directory, typically a contemporary Kelly's Directory, give a flavour of the shops and businesses flourishing at the time.

What strikes the observer is the care and attention given to detail and quality to ensure that the finished product is of the highest standard. The price, however, is surprisingly low at only £2.20 each.

The maps show the growth of industrial Britain and its roads and railways and are of interest to a wide range of researchers, local historians, genealogists, industrial archaeologists, transport enthusiasts and so on. About 30% of business today is direct sales to individuals via the website, *www.alangodfreymaps.co.uk*, or by telephone, and is handled by a small administrative staff. Other sales are through stockists or libraries.

We would like to thank Alan Godfrey for his hospitality, and his staff, Liz Atkinson, Annette Christie, Donna Fiddes and Keith Jamieson, for the warmth of their welcome.

The transformation of the Ordnance Survey under Colby: a view from the Fens

R C Wheeler

Letter-books are marvellous things. To have both sides of the correspondence between the central direction of an enterprise and its executant agents gives a tremendous insight into the practical problems faced, the compromises, and the characters of the principal actors. In contrast, the formal minutes of a governing body usually leave one struggling to read between the lines. This is particularly true with so many early nineteenth century minutes where the clerk has austerely restricted himself to recording corporate acts and decisions, padded out with such legal verbosity as the repetition of verbs in subjunctive and indicative moods: 'Resolved that the meeting be and hereby is adjourned to the Peacock Inn ...'

As an extreme example of such austerity one could cite the minutes of the General Assembly of Proprietors of the Witham Navigation, held on 26 June 1817. The Witham Navigation was a commercial company set up by Act of Parliament, much like a later railway company, but the assembly of proprietors (i.e. shareholders) was supreme and the day-to-day running of the company was entrusted to an unpaid committee of leading shareholders. By June 1817 the company had run out of money and the committee proposed to leave the work half-completed. The General Assembly directed the committee to produce a breakdown of expenditure against the heads of the original estimate by the engineer. That was a decision, so was recorded in the minutes. The fact that almost the entire committee resigned and no one could be persuaded to replace them was not a corporate act so was not recorded. One only learns about it because the surviving couple of members took legal advice on how the company could extricate itself and continue to function.

Letter books are so much more informative, even if only a portion of the correspondence is preserved – as for the collection of John Rennie's correspondence at NLS. He was the Witham engineer, and a very hands-on one, despite his many grander works.

Fortunately, the OS Letter Book² appears to be a complete record of the correspondence between the central direction at the Tower and the surveyors in the field; furthermore, geographical separation meant that supervision was being exercised almost wholly through this correspondence. Admittedly it only covers a limited period, the early 1820s, with occasional copies of earlier material. Conveniently, this covers the survey of Lincolnshire.

There are 32 surveyors who are known to have produced drawings for the Old Series,³ so it is easy to gain the impression of a massive corps at work. However, during the period 1820-22, only seven surveyors were active. Of these, four ceased work during the period, and one started (only to cease work in 1823). So, for the preservation of the skills that had been developed, the Survey depended on two individuals, Robert Dawson and Henry Stevens. Dawson had nothing to do with Lincolnshire and deserves a fuller study than can be afforded here, so I start with Henry Stevens. Despite having been around since at least 1808, Stevens was still in the fifth class, receiving a salary of £91-5s p.a. However, surveyors also received

¹ TNA RAIL 885/1.

² TNA OS 3/260 – henceforth OSLB.

³ Yolande Hodson, Ordnance Surveyors' drawings 1789-c1840, Reading: Research Publications, 1989.

⁴ OSLB, p 134, 3 April 1817.

the very substantial payment of 33s per square mile (out of which they had to meet all their expenses) and these sums tended to be much larger than a surveyor's salary.

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Stevens was a good surveyor, perhaps inclined to produce a little more detail than the engravers liked, especially in towns⁵ or where unfenced roads passed through closes.⁶ He was innovative in style: modern commentators have commended him for his introduction in this period of a style of open lettering filled with grey wash for parish towns; since this lettering merely replaces the normal Roman or 'print' lettering, to which the engravers would revert, one can argue that it was pointless elaboration. He also found a method of employing an assistant which allowed him to be confident of the quality of the final product, in that the assistant only did work where any error could easily be spotted by the surveyor.⁷

The letter book opens with correspondence about Stevens piece-work claims and which bills related to which plans. The rate at which Stevens submitted plans was confusing the system. It was also alarming Colby, who wrote to Capt Mudge (8 Aug 1820)

I am not aware that Mr Stevens ever had authority to employ any one besides Mr Skelton. From the quantity of work he has done, I much fear that order [of Gen. Mudge against unauthorised assistants] has been disobeyed; and it may be well for you to caution him against future disobedience in this respect; because if I discover that any part of any plan has been performed by a person unauthorised by us ... I will most assuredly reject the plan.

From what happened subsequently it would appear that this was not passed on to Stevens.

Much of the correspondence revolves around Stevens's desire to do his fair drawing away from the area he was working on. On 14 August 1820, he sought permission to do this at Shrewsbury 'as I left a great deal of property there which I am anxious to have under my own care'. Stevens had been working in Shropshire before he was moved to Lincolnshire, but his tone suggests an entanglement greater than a mere travelling chest. He was told he must send some corrections first, as his survey (OSD 280) differed from that of Budgen where it overlapped. He sent these on 23 August, noting (plausibly) that he believed the marsh was dry when he surveyed it and wet when Budgen did so – he tended to stand up for himself when his accuracy was doubted. We hear no more for a while so presume he went off to sort out his affairs at Shrewsbury.

On 25 December, he writes again from Lincoln, explaining that 'For the sake of my Children's health and the advantage of having them near to their Friends, I mean them to receive their education in the West of England' and seeks permission to draw his plans there 'as it will give me an opportunity of seeing them settled'. It would appear that the 'West of England' here refers to Cornwall. Permission was given on 28 December.

A similar request the following year comes somewhat earlier, on 6 November 1821. Stevens has been ill 'in consequence of having slept in a damp bed' and seeks permission to collect 'many things necessary' for drawing an earlier plan that seems to need further work, and then on to Cornwall in order to see his children. Colby had more important things on his mind. He writes on 12 November:

See my remarks on his plan of Lincoln, *Sheetlines* 66, 7.

⁶ OSLB, Budgen to Colby, 8 April 1821, shows that Colby expected fine detail under such circumstances.

^{&#}x27; Sheetlines 66, 33.

Stevens tended to have a single base when in the field, even at the cost of greater travelling time; Budgen in contrast lived out of a suitcase, so to speak. Unfortunately, Stevens's precise address at Lincoln does not appear in the letter book.

⁹ At this date, in such a context 'friends' means relatives.

I have learned with considerable sorrow that ... you have employed a person in surveying & otherwise for 4 Ordnance Plans in Lincolnshire without my official permission. ... No future breach will be permitted to pass unnoticed by the Master General.

Leave to visit Cornwall is granted but is conveyed by Mudge, no doubt lest it soften the reprimand. Stevens stands up for himself again: when at Lincoln, he had informed the late General Mudge that he had and did employ an assistant and had been told that he 'was employed in the exact discharge of his duty'. So armed, and 'knowing that 'Mr Stanley had Master Skelton's assistance and Mr Dawson his nephew, I did not consider I was doing wrong'; furthermore, he 'never put it in the power of an assistant to injure' the accuracy of the work. He doesn't have an assistant at present but seeks authority to employ 'Mr William Stevens, who has been employed on the service with me previous to his going to the Royal Military College' during the next summer vacation. Colby refuses, principally because he does not have financial authority to increase the amount of survey work done.

In the event, any budgetary worries that Colby may have had will have been resolved by Stevens's failure to take on any more OSDs until 1828. Either his illness was worse than he thought, or perhaps he found home and family so much more agreeable than being harassed by Colby.

Let us turn now to Charles Budgen, also at work in Lincolnshire. He was more senior, having been employed as a surveyor since at least 1799. He was also better paid, at £136-17-6d per annum. Without doubt he was less capable as a surveyor than Stevens. His greatest fault, though it was one that only came to light when hill-sketching started, was inadequate sketching while making traverses along the roads. Thus, features which crossed the roads, like streams, were joined up when he drew his plans; whether the bridge on one road was linked with the right bridge on a parallel road seems to have been left to luck. This problem seems not to have emerged within the period of the letter-book. Colby complained chiefly because Budgen's plans did not agree with those of Stevens at a join, or because he had omitted features, like buildings, that should have been shown, or because the gentry were complaining.

Initially though, it was Budgen doing the complaining. He was surveying Misson, on the Nottinghamshire / Lincolnshire border and found that the boundary was so fractured as to be impossible to draw. Even the lawyers, he observes, refer to 'the parish of Misson in the County of Lincoln or Nottingham, or in one or both of them'. He also encountered the local practice of 'warping' or deliberately flooding low lands in winter. This greatly enhanced soil fertility and greatly impeded survey.

His real bugbear was OSD 279. This had been made by him some years before – he implies 1813 in one letter (28 June 1821), when the rules were different. Indeed, General Mudge had arranged for him to borrow detailed drainage plans from Sir Joseph Banks and from Lord Fortescue's steward. His assistant had reduced them to the two-inch scale and he had then matched them to the framework he had surveyed based on the through roads and the embanked drains. Buildings had been inserted from the tracings, because he could not get them to agree with those in his field books and thought it better that his map should 'agree with the Plans in the hands of the Commissioners of Sewers' – not a very convincing argument.

¹⁰ Sheetlines 66, 5.

¹¹ *Through* roads because they allowed a closed traverse, *embanked* drains because the drainage authorities owned the embankments and will have readily granted permission for a professional man to pass along them. In this area, both roads and drains have long straight sections and could have been traversed quite quickly.

Colby's approach, as usual, was to start (21 February 1821) with an absolutely devastating demand: because many buildings had been omitted, the plan should be re-done. Capt. Mudge followed this up with an equally unhelpful letter: if any parts of any of his plans had been copied from other sources, he should ask for them to be returned to him so that he could re-do them. Budgen's aim was to have the demand reduced to a request to re-survey specific features:

which I trust you will have the goodness to point out by drawing a line with a black lead pencil at the place or places that I may be enabled to correct the whole without danger of having to return so great a distance or having my mind afterwards distressed and being put to such a heavy expense.

Since Colby was relying on a small sample check made by Lt Robe, this was exactly what he did not want to do. Meanwhile, Budgen was reduced to probing Colby's mind by protesting that 'it is customary ... to leave out Hay Barns and all kinds of Sheds that are built on posts without foundations' (2 March) and then (22 April) providing a fascinating account of the process of woad manufacture – done from booths in the fens which were moved on after a few years. This at last produced a specific answer from Colby (25 April): 'The Omissions I alluded to were not buildings in the Fens but Houses by the side of the Turnpike Road and therefore visible to any person who has the smallest knowledge of maps.' That was all that would be forthcoming so, as Budgen reports on 7 May, 'I go along every Road with the Plan and make the corrections on the spot which I am enabled to do by the enclosures etc being correctly put down on the Plan. 12 It will take me ten or twelve days longer to examine the parts where I made use of Sir Joseph Banks's Plans ...'. This was a revision as much as a correction: he notes on 14 May 'I last week found two new churches built and one taken down and Houses too numerous to mention and roads stopped and turned in many places'. Indeed, back in March he had needed to resurvey the Steeping River, where a new cut had been made in 1818 and a large area of marsh reclaimed. It is hardly surprising that he should feel hard done by being required to do this all at his own expense.

That Colby should have sought comments on the proof sheets from the local gentry is not unreasonable. That he should have paid particular attention to a response from Charles Chaplin of Blankney, Esq, is to be expected: Chaplin was the JP who ran Kesteven¹³ and everyone knew it. But to pass on to Budgen (on 13 April 1821) Chaplin's vague dissatisfaction, without knowing what is was that Chaplin objected to and whether those objections were justified, shows poor leadership. It was 25 April before Colby steeled himself to write to Chaplin to ask for the detail of his criticisms, only to be told that Chaplin had himself only been passing on the general impressions of the gentlemen to whom he had sent the proof sheets. However, by 16 May it was possible for Colby to report that some 35 errors had been reported to Chaplin from so eminent a source as Lord Brownlow: roads omitted, including one turnpike, names wrongly spelt, woods omitted or wrongly shown. These stung Budgen into standing up to Colby: several of the omissions complained of were shown on his plans; if he had been sent the proof sheets, he would know whether an oversight of the engraver was responsible. The sheet had been surveyed some time ago and

What Budgen had used were almost certainly enclosure maps. What he shows on his fair drawing are boundaries of allotments; any further subdivision into fields he does not show. But the allotment boundaries will have sufficed to establish positions of buildings.

¹³ From medieval times until the 1960s, Lincolnshire was divided into the Parts of Kesteven, the Parts of Lindsey, and the Parts of Holland; for most purposes, all three were independent counties.

'surely I am not required to put in all the Improvements in the County as it must be expected there are hundreds of houses built since the Survey was taken, and Commons enclosed, and new roads made in various places.'

Colby also received comments from a Mr Tunnard of Frampton who offered to arrange for someone from the Ordnance Office to be shown various public plans (meaning, I presume, the property of one of the drainage authorities) and in the mean time sent his private map of the East, West and Wildmore Fens. Now unless we suppose that Tunnard undertook surveys as a hobby, private must be understood simply to mean that the sheet was his own property. The East, West and Wildmore Fens cover a large area as drainage maps go. There had been a detailed survey by Anthony Bower in 1799 which led to the publication of a map by Arrowsmith in 1800, showing the initial ideas (subsequently modified) for draining these fens. Bower made a further plan in 1811 to show proposals for making the principal drains navigable; this was engraved and then re-used in a report for the Bedford Level Corporation issued in 1814. For its clear depiction of the drainage system at the one-inch scale it is a useful little map, but it would hardly be of much assistance in correcting an OSD. Nevertheless, Colby wrote back obsequiously (10 May 1821): 'The comparison of our map with local surveys doubtless affords the means of ensuring greater accuracy and with that view Lt Robe of the Royal Engineers, now at Wisbeach in Cambridgeshire will shortly wait upon you to benefit by your obliging offer.'

On 18 June 1821, Budgen informed Capt. Mudge that he planned to go home to Frant (just outside Tunbridge Wells) to draw the Gainsborough plan. Mudge warned him on 22 June that Colby 'would not be pleased'. In his next letter, Budgen explained that it was too late to change his plans: his luggage had gone off already. Besides, 'I am quite overcome with fatigue and sleep as near as I can where I leave off'. Budgen continued to finish off his plans until the following year but did no more field work thereafter.

Before accusing Colby of high-handed behaviour, even of bullying, in his treatment of his subordinates, we must consider whether we are judging him by the standards of a later age. It is worth returning to the Proprietors of the Witham Navigation. They employed a surveyor and directions to him are normally recorded in their minute book. Nothing like the treatment meted out by Colby occurred. Indeed, taking that company and its predecessor, the Navigation Commissioners, together with the parallel Drainage Commissioners from 1762 to 1818, and the Lincoln West Drainage Commissioners from 1805 to 1816, I can only find one example even approaching Colby's behaviour. This concerned a plan and profile obtained from a Nottinghamshire surveyor, James Green, in 1792. The levels on this were immediately questioned by local surveyors (indeed, they are patently wrong). Having obtained firm evidence of inaccuracy, the Drainage Commissioners wrote to Green expressing themselves 'much dissatisfied' and demanding an accurate plan without further charge – they had already paid his bill. 4 Green provided corrections to his levels but they were still judged faulty and the demand for a correct plan was re-iterated. Nothing more appears in the minutes; perhaps Green simply failed to reply. In general, rather than Commissioners berating their surveyors, they showed astonishing tolerance when their own part-time surveyors failed to attend Commissioners' meetings as directed, or reported that pressure of other work had prevented them from carrying out tasks.¹⁵

¹⁴ LAO LRA 1/1/2, 1 July 1794.

¹⁵ Although after Langley Edwards had 'Disrespectfully neglected the Commissioners of Navigation' by not attending their meeting of 31 August 1769, he was 'peremptorily ordered to attend the next'. [TNA RAIL 885/1].

If Colby found himself almost without experienced surveyors, it seems not to have inconvenienced him: survey had run ahead of engraving. Nor did the loss of expertise prove a problem: whereas surveyors up to this date had been broad generalists akin to those in private practice, from the commencement of the Irish survey, the work was subdivided into discrete tasks that could be carried out by lower-paid employees. It is intriguing to speculate that such a division of labour was already in Colby's thoughts in 1821, and that the absence of any constructive proposals to improve the quality of Stevens's or Budgen's plans came about because he no longer saw better generalists as the way forward.

So far as OSD 279 was concerned, Colby had another problem besides accuracy. Budgen's plan, with its allotment boundaries, was too detailed to reduce to the one-inch scale. It would have been possible to leave out those boundaries, but then the plan would look very empty. The answer seems to have been to insert some of the boundaries, selected almost at random. The real problem was that the one-inch scale was unsuited to this sort of country. So perhaps the disquiet that grew into the 'battle of the scales' first stirred on the bleak expanses of the East Fen.

Colby's underlying worry in surveying this area was that the product of his survey would be compared against the existing drainage maps and found wanting. He was right to worry, and Budgen (or rather General Mudge) in one sense had an answer: base the survey on those same drainage maps with updating and the locals will be satisfied. Unfortunately it was an answer that did not offer the sort of consistency between areas that a national map series required. So it came about as Colby had feared, that Colby's one-inch engraved sheets were compared with the drainage maps and were rejected. Railway promoters might use them¹⁸ but the locals stuck with the drainage maps. A lithographed version of Budgen's two-inch OSD might well have proved a success; that was not available, but local surveyors could produce composites from the enclosure awards in the same way (though with less updating). A larger scale made it possible to include the acreage figures from the awards and five inches to the miles (sixteen chains to an inch) was generally adopted. For a long time, manuscript copies were all that was available, but in 1879 a coloured lithographed version was produced.¹⁹ Sixty-eight years after Colby had been worrying about the outdatedness of Budgen's OSD, his material attained its final glorious flowering.

See the observations on Revision by Oliver in the introductory essay to The Old Series Ordnance Survey Maps of England & Wales, Vol VI, Lympne: Margary, 1992, xii.

¹⁷ See the observations by Harley and Oliver in the introductory essay to *The Old Series Ordnance Survey Maps of England & Wales*, Vol VII, Lympne: Margary, 1989, xii.

¹⁸ Sheetlines 70, 26.

Fourth District Map (four sheets) compiled by James Martin, surveyor, Wainfleet, and lithographed by Martin & Hood, 8 Great Newport Street, London, WC. They covered the Fourth District of the Witham drainage.

Wei-hai-wei (the majestic guardian of the sea) Mike Nolan

"It is common knowledge that officers and men of the Ordnance Survey have served professionally outside Great Britain in many of the British Dependencies. In these circumstances the department is not normally responsible for the work executed, nor for the publication of any map resulting from the work."

So began Colonel H E M Newman's articles in the *R.E. Journal* 1949 on the Ordnance Survey in the Near East which described the surveys of Jerusalem in 1864-1865 and Sinai 1868-1869. Among the other dependencies in which the Ordnance Survey was involved in surveying can be counted at least Malta, Gibraltar, Bermuda and Wei-hai-wei, the last being the subject of this note.

The Chinese naval base of Wei-hai-wei was taken by the Japanese in the Sino-Japanese War in 1895. The Japanese remained in occupation until June 1899 when the British occupied it. In 1902 the original policy of converting it into a naval base was abandoned and thereafter it is believed that it became a sort of change-of-air summer resort for British personnel of the garrisons in the Far East, garrisoned by about 500-1500 men, mainly from the Chinese Regiment. In August 1906 this regiment was disbanded and thereafter, the only British military presence was a small detachment of Royal Marines maintained on Liu Kung Tao Island.

The Ordnance Survey report for 1899 records the fact that

During 1898-9 two officers with six non-commissioned officers and men have gone to Weihai-wei, and one sergeant and one sapper to the Gambia for survey work there. There are also three non-commissioned officers still employed at Bermuda.

The historical record for 19 Company R.E. records:

Special Survey of Wei-hai-wei, China. 5 N.C.O's and 1 Sapper 3-6-1898.

At this time, the Director of Military Intelligence was Sir John Ardagh, a Royal Engineer of great distinction. It was he who issued instructions for the survey of Wei-hai-wei:¹

INSTRUCTIONS FOR THE OFFICER COMMANDING THE SURVEY PARTY ABOUT TO BE DESPATCHED TO WEI-HAI-WEI.

The Port of Wei-hai-wei, with certain adjacent territory and islands, having been leased by China to H.M. Government, I am desired by the Secretary of State for War, to acquaint you that you have been selected to proceed thither in command of a party detailed in the margin [2 R.E. Officers & 6 NCO & Sappers], for the purpose of making a survey and reconnaissance of the territory in question, in conjunction and co-operation with the officers of the Royal Navy who have been directed by the Admiralty to undertake a survey of the harbour and its vicinity from a naval point of view.

You will confer with the Senior Naval Officer of the Surveying ship, and in concert with him will arrange for the execution of these surveys in such a manner as to subserve the requirements of both the War Office and the Admiralty. You will undertake the

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Covering War Office memo dated 13 May 1898. TNA CAB 37/47, No 37; TNA 30/40/14.

measurement of a base and the observations for triangulation, with such a degree of accuracy as you may jointly decide to be necessary, and sufficient; communicating the results to your naval colleague and affording him access to all information you may acquire.

The objects of the survey are as follows:-

- (a) To enable H.M. government to decide upon the boundaries of the territory whether as a British Sphere of Interest, or for purposes of actual occupation.
- (b) To enable the Admiralty to form an estimate of the extent of ground to be reserved for naval establishments.
- (c) To enable the naval and military authorities to advise as to the defence which may be deemed requisite for the protection of the naval establishments.,
- (d) To furnish the Inspector General of Fortifications with such large scale surveys and plans as may be needed for the design and execution of such military and public works as may be decided upon.

Further details – as to scale to be employed for the maps – the extent of territory to be surveyed on each scale – and the particular points requiring special attention and report, will be subsequently communicated to you.

WEI-HAI-WEI - DETAILED INSTRUCTIONS FOR SURVEY.²

In pursuance of the last paragraph of the General Instructions, the following observations are forwarded for your information and guidance.

1. The territory occupied by the Japanese Troops at Wei-hai-wei is understood to comprise the island of Liu-kung and a band of five ri in width from the coast line of the bay, and no Chinese troops were to approach within five ri of the occupied territory. A ri is equal to 2.45 statute miles.

The rayon of occupation is therefore 12½ miles, and the outer zone extends the same distance beyond it and includes the greater portion of the Shan Tung promontory, that part which lies between its outer boundary and the south and east coast being practically included in the prohibited territory. These boundaries will, until a definite agreement with China is completed, afford a guide for the extent of ground to be surveyed; but as a much shorter line than the curve drawn at a distance of 24½ miles from the harbour, can be found by drawing a line across the neck of the peninsula about the meridian of 121-40 east longitude, it will be preferable to adopt it as the boundary, and the military reconnaissance should in the first instance be made over a belt about five miles in width on either side of this meridian, with a view to selecting suitable natural features such as water partings or ravines, extending from the north to the south shore in such a manner as to be easy to define, to watch, and to guard whether for fiscal, administrative or military purposes.

The rest of the reconnaissance of the peninsula is not pressing. The scale of this reconnaissance will be 1 inch to a mile with approximate hill shading.

2. The belt of actual occupation will probably not need to be as extensive as that which the Japanese consider necessary. It should however include all positions and localities which now are, or eventually may become necessary for naval, military or civil purposes – sites for Admiralty establishments; for forts and batteries which may be requisite now or in future; for barracks, hospitals, sanitaria, civil buildings, commercial storehouses, and private

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² TNA 30/40/14.

residences; together with a zone to give security to the defences, cultivable land, woods, water supply, and other amenities for a British occupation.

This tract should be surveyed on a scale of two inches to a mile based on accurate triangulation, the stations of which should be permanently marked, and the map should be hill shaded in the first instance, or the features shown by approximate contours. It should subsequently be contoured at intervals of 100 feet.

- 3. The main island, the smaller islands, the shores of the harbour and the probable sites of works and buildings which may become necessary in the immediate future, should be surveyed on a scale of 1/2,500 or approximately 25 inches to the mile, with contours at 25 feet intervals.
- 4. Detailed plans on a scale of 1/120, or 10 feet to an inch will be required of the smaller islands and of sites where works and buildings are to be erected. These plans should be contoured at intervals of 5 feet.
- 5. A general reconnaissance report should be prepared on the resources of the territory, both that which is to be actually occupied, in full detail; and that over which rights are to be reserved, in so far as may be requisite. In the former case, besides the existing works which should be described Water Supply, Sanitary conditions, Towns and Villages, Cultivation and Crops, Food resources, Communications and means of transport, Positions suitable for naval and military establishments, Nature of soil, Building materials, Fuel and Coal, will be reported upon. In the latter, less detail is needed.
- 6. Steps will be taken to procure if possible from the Japanese Government any surveys or plans which may have been made under their direction.
- 7. The order in which the work should be carried out, will be decided in concert with the head of the Admiralty Surveying party, probably in the following consecution.

Base measurement and Triangulation of coast line of harbour and islands.

Survey of islands and shore of harbour so far as required on scale of 1/2,500.

Detail Plans on scale of 1/120.

General 2 inch to a mile survey up to occupation limits.

Reconnaissance of the rest of promontory.

8. Arrangements should be made before departure to have Chinese acquainted with the Northern Chinese or Mandarin dialect (which is not understood in Hong Kong and Canton) engaged as clerk, office-keeper, store-keeper, chainmen, cooks and servants. They will probably have to be procured in the northern Treaty Ports.

10 May 1898.

The survey of Wei-hai-wei has already been perfectly well described in the History of the Corps of Royal Engineers as follows:³

Wei-hai-wei was a Chinese town in the north-east corner of Shantung province, which gave its name to a splendid harbour. This harbour had been fortified as a base for the Chinese Fleet, and, during the Sino-Japanese War, was captured and occupied by the Japanese, who dismantled and partially destroyed the forts. The harbour is protected by the island of Leu Kung, which is about two miles long and three-quarters of a mile wide, with a ridge of hills down the centre rising to a height of 500 ft. above the sea. Wei-hai-wei was handed over to the British on the 1st April 1898, and was garrisoned by a company of Marines, the first

³ Corps History Vol IV, 148.

Commissioner being Commander Gaunt, R.N. The island was made the Headquarters and contained all the naval establishments. On the mainland the area to be taken over had a frontage to the bay of about 30 miles and an average depth of twenty miles. Much of this area was covered by mountainous ridges up to 1,000 ft. high, cut by deep gullies and fertile valleys. The small walled-city of Wei-hai-wei was exempted from British control. In May, 1898, a party of Royal Engineers consisting of Colonel J F Lewis, Major C Penrose and Captain W A Harrison, with a Survey detachment, were sent out to start the essential engineer work. Colonel Lewis, who was a recognized authority on Coast Defence, was to report on the defences required and, on the completion of his report in the autumn, left to take up the appointment of Colonel on the Staff, C.R.E., Gibraltar.

Major Penrose was appointed C.R.E. and had to begin by preparing a survey of the whole territory and making the arrangements for housing the garrison. Captain Harrison was to carry out the survey and was joined in November, 1898, by Captain R P Lee. These officers were busy till the autumn of 1899 in the survey operations during which the antagonism of the local Chinese necessitated the provision of a strong guard of Marines. On the completion of the survey, Harrison returned home but Lee remained as Division Officer, R.E., and also acted as Colonial Engineer. Early in 1899 the formation of a Chinese Regiment was approved under British officers and barracks for this unit were constructed on the mainland by Major Penrose. These were built of red ashlar granite obtained from the demolished Chinese forts. Early in 1900 Colonel A R F Dorward of the Royal Engineers was appointed Colonel on the Staff to command the troops at Wei-hai-wei and was also made Civil and Military Commissioner.

In the same year a new Fortress Company R.E., the 44th, was formed and the Headquarters and right half company were sent to Wei-hai-wei ...

The period of the survey coincided with the troubles caused by the Boxer Rebellion and was not without incident, again, as recorded in the R.E. Corps History:⁴

At Wei-hai-wei disturbances had been caused by parties of Boxers until, on the 5th May, Major C Penrose, R.E., while employed on Survey work for the Boundary Commission, was attacked and severely wounded after he had accounted for four or five of the attackers. He was rescued just in time by a party of the Chinese Regiment ...

However the survey was completed successfully, as recorded in the OS Report for 1900:

The party of two officers and six non-commissioned officers and men despatched to Weihai-wei have completed the survey of that place, and the non-commissioned officers and men have recently rejoined the Ordnance Survey.

The result of this survey was a suite of both Ordnance Survey style and Intelligence Department style sheets:

A 1:2500 scale map of the island of Liu Kung Tao in four sheets was produced in Ordnance Survey style and from this was compiled the single sheet map at 1:10,560 scale, an extract of which featured in the puzzle in the last issue of *Sheetlines*. The complete territory was shown on a four-sheet series at 1:31,680 scale, IDWO 1430. A further single-sheet map at 1:50,000 scale was produced as IDWO 1539. Finally, a one-inch scale map was also produced, IDWO 1878.

⁴ Corps History Vol IV, 149.



A detail from the one-inch scale map of Wei-hai-wei. The 'puzzle corner' in Sheetlines 75 showed the western end of Liu-kung Tao from a copy of the 1:10,560 sheet in the Bodleian Library.

Quite when Wei-hai-wei was returned to China, and the exact circumstances, are not known by me but the following may be relevant:

The territory of Weihaiwei, as delimited by the boundary stones fixed by the boundary Commission of 1899-1901, comprising a belt of land 10 English miles wide along the entire coastline of the Bay of Weihaiwei and including Liukungtao and all other islands in the Bay of Weihaiwei, is hereby returned to the Republic of China.

Convention between His Majesty and the President of the National Government of the Republic of China for the Rendition of Weihaiwei etc, Nanking, April 18, 1930.⁵

The survey of Wei-hai-wei may rank as one of the fastest 'Colonial' surveys, however, it was certainly not the smallest, but that may be another story.

Material from the History of the Corps of Royal Engineers reproduced with the permission of the Institute of Royal Engineers, Chatham. Material from The National Archives reproduced with the permission of The National Archives, Kew.

⁵ HMSO, 1930; BOD RH 918.r.2.

'Great Britain is a collector of islands and peninsulas' Andrew S Cook

The puzzle corner in *Sheetlines 75* has more in it than simply a question of map identification. The detail shown is an extract from the six-inch sheet derived from the 25-inch 1898-99 survey of Wei-Hai-Wei, and drawn and heliozincographed by OS in 1900 as a repayment job for War Office. The combination of 'Admiralty Pier', west-facing Observatory Island, deep soundings close to shore, congested shoreline buildings and steep relief behind suggests to historians of naval establishments and coastal topography the island of Liu-Kung Tao lying offshore at Wei-Hai-Wei. Wei-Hai-Wei, a former British naval and coaling station on the north-east coast of Shantung peninsula, was leased by China to Britain in 1898 at the end of Japanese occupation, the duration of the lease to match that of neighbouring Port Arthur to Russia. The island of Liu-Kung Tao, the harbour and a belt of facing mainland were placed under British jurisdiction, exercised by a Colonial Office commissioner.²

The leased territory as a whole was surveyed in 1898 'by a Party of Royal Engineers under the Superintendence of Major C Penrose R.E.' and the resulting two-inch map, heliozincographed at OS Office, Southampton, in 1899, issued and placed on sale as TSGS 1430. Two other maps resulted directly from Penrose's survey. The first was a four-sheet map of 1899 taken directly from the more detailed 25-inch survey of Liu-Kung Tao island and the facing shoreline of Narcissus Bay; the second the single six-inch sheet derived in 1900 from the 25-inch. Both the 25-inch and the six-inch sheets used, presumably for convenience, the standard County Series frames and conventions then current in OS. This explains why the extract looks like part of a six-inch derived County Series sheet. Only the marginal information was changed, everything relating particularly to British County Series being removed. No TSGS number was allocated to either the 25-inch or the six-inch maps, and the only sign of responsibility on either product is the printing statement 'Heliozincographed at the Ordnance Survey Office, Southampton'. Some library cataloguing rules allow for the printer to be taken as 'publisher' where no publisher name is given, and probably for this reason these sheets have been treated in some collections as 'Publisher – Southampton: Ordnance Survey Office, 1899 [or 1900]'. The words in the top margin 'For War Department Purposes only' (25-inch), and 'Strictly Confidential' (six-inch), give the clue that this was in fact repayment work for Directorate of Fortifications and Works, War Office.³

Many will recognise the quotation in the Puzzle Corner caption as the opening sentence of Newman's two-part 1949 *RE Journal* article on the OS Jerusalem and Sinai surveys of the 1860s. The puzzle is to work out what relationship there might be between 1860s OS-officered surveys in the Near East and OS repayment work on an 1890s R.E. survey in China. Newman's article was drawn from his typescript *The Work of the Ordnance Survey*

¹ L A Mills, British Rule in Eastern Asia, Oxford, 1942, 373.

² Encyclopaedia Britannica, 11th edition (1911), s.n. Wei-Hai-Wei.

Ordnance Survey, Catalogue of Maps prepared under the Instructions of the Director of Works, and which are not on Sale to the Public, OS [for WO], 1935, issued 'For Official Use Only' over the name of Maj.-Gen. R L B Thompson, Director of Works, War Office (QMG7), lists (p. 90) the Wei-Hai-Wei 1900 six-inch and 1899 1:2500 sheets.

⁴ Lt.-Col. H E M Newman, 'The Ordnance Survey in the Near East', *The Royal Engineers Journal*, **63** (1949), 64-77 and 168-181.

outside Great Britain and Northern Ireland, compiled in the 1930s and used as the basis for the Jerusalem and Sinai chapter of Seymour. But Wei-Hai-Wei was not among the six areas identified as OS work by Newman in his project to enhance the OS 'overseas activities' profile. Newman wrote in November 1934 to Major R L 'Bruno' Brown (MI4):

Winterbo' has set me the task of investigating Ordnance Survey activities outwith (as they say in Scotland) Great Britain. Survey activities where the O.S. merely supplies personnel & stores on loan do not count, only those over which the D.G. was given personal technical direction, even though externally financed. As instances – Jerusalem & Sinai in the 1860s, Channel Is., Bermuda, I. of Man.⁷

The correspondence then discussed the 1845 'Ordnance Map of Hong Kong' by one 'Lieut. Collinson R.E.', rejecting it as OS work on these criteria and on the grounds that neither Collinson nor 'Maj. Aldrich R.E.', whom Newman reported as signing the map, had been identified as 'having belonged to the Ordnance Survey'. The 1896 revision of Collinson's map, thought by MI4 in 1934 to have been made for DFW, was noted as signed off by 'Lt.-Col. Mulley C.R.E.' before being heliozincographed at OS in 1896. Penrose's 1898-99 survey of Wei-Hai-Wei is in the same category. Penrose was not an officer who had 'belonged to the Ordnance Survey': before Wei-Hai-Wei he had been successively Instructor in Military Drawing RMA (1882-85), employed with Local Forces, New South Wales (1885-89), and Assistant Inspector (later Inspector) of Submarine Defences, HQ Army (1891-97). He superintended the Wei-Hai-Wei survey simply as an RE officer on station, and though he was C.R.E., Wei-Hai-Wei from 1899 to 1900, the June 1902 revision of the 25-inch map was undertaken by his successor.

Penrose's survey of Wei-Hai-Wei was not one 'over which the DG (OS) was given personal technical direction', to recall Newman's criteria. We should be careful to distinguish OS repayment work for DFW (WO) from familiar OS-directed large-scale map series, especially where the resulting sheets appear to follow many of the same conventions. Simply, 'Heliozincographed at Ordnance Survey Office' on a map does not necessarily mean that it was published by Ordnance Survey.

As editor, I take personal responsibility for the caption added to the puzzle corner in the last issue (and admit that I had been completely unable to identify the location of the map extract until let into the secret by Mike Nolan). Mike provided this puzzle as a 'teaser' for the article that he had already prepared for this issue; publishing the map encouraged Andrew Cook to further research. His comments on work undertaken by OS on a repayment basis form a useful supplement to the original article and I am grateful to both authors for bringing this nearly forgotten episode to our attention. — CJH.

W A Seymour (ed.), A History of the Ordnance Survey (Folkestone, 1980), ch. 14.

⁶ These were the Crimean War, Jerusalem, Sinai, Isle of Man, the Channel Islands, and Bermuda.

Photocopies (courtesy of Dr Ian Mumford) from a Military Survey unregistered branch file weeded and routinely destroyed in the 1950s: Capt. H E M Newman, Ordnance Survey Office, to 'Bruno' [Maj. R L Brown, MI4], 10 November 1934.

⁸ *Ibid.*, Capt. J D Newman [MI4] to Capt. H E M Newman, 13 November 1934. For 'Lieut. Collinson R.E.' this is hardly surprising: he is more properly to be identified with Lieut. R. Collinson R.N. (later Vice-Adm. Sir Richard Collinson), occupied in the early 1840s in hydrographic survey on the China coast in the vicinity of Hong Kong (L S Dawson, *Memoirs of Hydrography*, Eastbourne, 1885, vol. ii, pp. 30-33).

Lt.-Col. W H Molloy, C[ommanding] R.E, Hong Kong (Army List).

¹⁰ Army List, various years 1882-1900.

Kerry musings

David Archer

Forget bench marks, the turnpike roads of Montgomeryshire are my new enthusiasm, and this time, it's the real thing.¹ Very little has been written about them, only a piece from a typical late nineteenth century antiquary and a brief list of toll gates, compiled in 1961. So, I have been poring over maps, trying to piece things together, enjoying the thrill of the chase.

My first step was to find all the milestones shown on the David and Charles reprints of the one-inch Old Series maps. And it really is wonderful, if a little suspicious, how they all appear to be there, stretching out from the small towns of mid-Wales. I then used a different coloured pen for each series of stones, circled the stones and marked the road in the same colour. The next step was to find all the gates shown, marked by TG or sometimes TP. A few were even named, Llifior Gate, for example. These, I marked with dots, using a pink highlighter. And I can say with all honesty, that it is extremely satisfying to colour Old Series maps, and see a multicoloured pattern of roads appearing. By comparing the late states of the David and Charles versions with the early states of the Harry Margary reprints, more gates have been identified, those which had fallen out of use as the nineteenth century progressed. These I marked on the David and Charles maps, again pink, but with a blue border.

In the early stages, I found the 'A' printings of the First Series 1:25,000 very useful for sorting out a host of questions. Although published in the early 1950s, most of the detail on these maps was only revised around 1900-1902, sixteen years after the Montgomeryshire turnpikes ceased in 1886. At about the same stage, and being aware that it might easily confuse me, I introduced a third map series into the operations room (aka the kitchen), the 1:50,000, and am using these to plot alternative routes and small diversions. Pink again, with marginal notes in blue biro. I now want to get a picture of all the turnpike roads in Montgomeryshire and am not sure what map to use. I am aware that what I plot will be wrong in places, a first draft so to speak, so do not want to add it to the David and Charles maps. I would also like it to be on one piece of paper. A quarter-inch map would be suitable, but is slightly too small to read easily. Perhaps I could enlarge an outline version? So, the next step is to colour in those turnpike roads which do not have milestones shown on the Old Series. My understanding is that all turnpike roads are shown with one of the road casings thicker than the other.

It is at this stage that I stopped work, in order to muse, and having almost finished this piece, I trawled all the secondary sources I have, seeking confirmation of the road casing question for one-inch maps. I found nothing, except 'turnpike roads; one side thickened' in the 'General Cartographic Signs' of the later Margary volumes. Alas, I also saw a reference to 'mileages along turnpike roads' on page xxxii of Margary volume three. Shock horror. Mileages along turnpike roads, not milestones. Looking again, I note that the 'General Cartographic Signs' show no milestone symbol nor abbreviation, only examples of mileages. So, perhaps all my nicely circled milestones are wrong. I can find no evidence that they are stones. But they might be, well some of them. If mileages, and if measured from the same starting point as milestones, then they would be in the right place, assuming the standard mile was used for both purposes. Some series have two numbers at the same spot, mileages measured from each end of a road, as are found on some milestones. Why would the OS do

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Just as bench marks were.

this unless the surveyors took the distances from milestones, where they existed? But I have yet to get down and dig deeper. I am also aware that my biggest question is still unanswered, why do the Old Series show some turnpike roads with numbers (one per mile) and others without? Hopefully the next issue will supply an answer or two.

To resume the original musing. From the maps, it is not possible to identify which roads are still turnpikes nor which trusts still operate. But in any case, their depiction would have been beneficial to travellers, as even if they were no longer turnpikes, they should in theory indicate that the roads were of a good standard. In theory. The roads shown on the Old Series appear to be of only two sorts, turnpikes and others. Being a turnpike road was not necessarily a guarantee of its being of a good standard. Some were very poor, but one could not tell from the map. A bit like British canals in the 1930s, which were shown on Ordnance Survey maps as an intricate blue-veined system, but in reality, some were almost impossible to navigate, being 'half-abandoned' and 'falling so rapidly into disuse' as H J Massingham notes in the foreword to L T C Rolt's *Narrow Boat*. Today, we have various classes of road quality, and can be pretty sure that minimum standards apply.

I have never really undertaken this sort of exercise before. We never did projects at school, so I see this as something new (not a second, modern childhood, please). Having satisfied myself that I had identified all that I could on the maps, I started to record the information in a computer database. The input of the basic information was exceedingly boring and a struggle, but I knew that it only had to be done once, and when finished, it was certainly worth it. Nice columns of gate names, with known, suggested or guessed locations, National Grid references, and a column of notes and thoughts. But the best bits are the gaps. Gaps to be filled. More chasing. Very much my sort of thing, where research can be done in a piecemeal way. Half an hour here and there. And gradually, the gaps get filled in.

It has surprised me how much I have been able to find by using just the Old Series and 1:25,000 maps. But gaps still remain, and I started making a list of things to check, and which 1:2500 County Series sheets to look at when I next went to the library. I then remembered the Landmark Internet site. Landmark, you will remember, spent many months down at the OS scanning everything they could lay hands on. On the website, they have put up the First Edition six-inch maps, which one can view free of charge (though the quality is rather poor, especially for a digital *archive*). Searches can be by place name or twelve digit National Grid co-ordinates. For example, the gate list contained Pwll gate, which I could not identify. A search for this with Landmark gave one location near Powis Castle, and brought up a map showing an area called Pwll, with Pwll Gate just up the road. This was one of the David and Charles gates that I had no name for. Another gap closed. This site is a tremendous help, especially as it offers a print facility. The project now includes a ringbinder, with pages of map extracts centred on individual gates, usually named, and illustrations of gates. These come from local village and town histories, plus the odd postcard offered on e-Bay, which one can copy without buying.

The nice thing about this work is that it can be expanded as one wants. First plot the roads, gates and milestones (the latter, from something other than the Old Series). Build an archive of modern and historical images. Plot the changes of road routes and the movement of gates (they were sometimes re-positioned). Get ground plans for the toll houses and study their architecture, even the family history of the gatekeepers if one were so minded. Given a lifetime of study, the economic history of the trusts and county could be written up. One can just go into more and more detail with such a task.

Since starting this research, I have come to realise that little has been written about turnpike roads in general. With only three or four scholarly works and several dozen local studies of varying quality, it seems as if turnpike roads will become the unwritten topics of transport history. Lots of books exist on Roman roads, and modern roads are experiencing a big burst in activity, with publications on routes, by-passes, numbering, signage and even interest in the history of the white lines used. All very valid, but far more attention than has been paid to the turnpikes. However, a word of warning. Too much looking at fact-yielding maps can be dangerous, and one can easily be diverted. Whilst looking at the Old Series map for the Welshpool area, I noticed a ferry across the Severn, beside a house that we once considered buying. Glancing up the river, I realised that ferries were common. This set me wondering, maybe I should study the ferries and fords of Montgomeryshire next week?

Letters

Fool's gold

The interest shown by Don Clayton,¹ Richard Porter and Roger Taylor² prompts me to expose my shame (inadequate research for an article of only fifty words) and provide a more authentic explanation for the bogus Liskeard Gold Mine. It was a foolish rather than a mischievous local responsible and A K Hamilton Jenkin gives a scathing account of this venture in his *Mines and Miners of Cornwall, Volume XIV*.

In the late seventeen hundreds a Liskeard resident and his son (a local clergyman) with more money than geological sense, discovered a vein of 'soft micaceous schist having a deep yellowish tinge' and, mistaking this for gold, spent considerable sums erecting machinery to bring this to the surface. Hamilton Jenkin is equally unkind to the surveyor who put the mine (probably the small rectangle just south west of the G of 'Gold') on the map in about 1803. But this is unfair. If the surveyor finds evidence of mining or quarrying he is bound to accept the owner's claim for the product and if he or she says 'treacle' then so be it.³

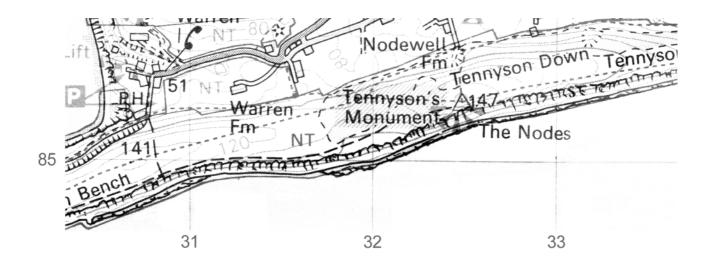
Changing the subject slightly, as did Richard, dubious river and stream accuracy has been noted elsewhere on Old Series one-inch sheet 25. On north Dartmoor numerous tors (high points of outcropping rock), Princetown Prison and Cranmere Pool were found to be perfectly accurate when compared with the modern Seventh Series, indicating instrumental fixation. But the River Tavy is badly in error at Watern Oke (5683) and the East Dart at Stannon Tor (6381). There are several other lesser examples. No amount of natural and gradual (or even man-made) change can explain these mistakes. There is also at least one instance of water flowing both ways, with the North Teign River joining a tributary of the East Dart north of Stannon Tor.

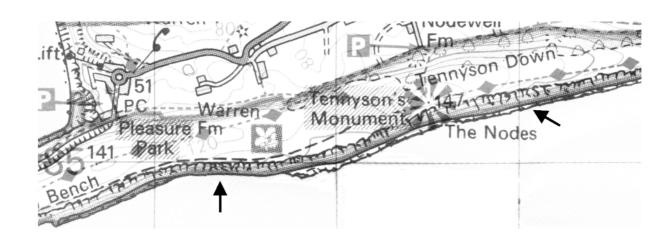
John Cole

¹ *Sheetlines 74*, 52.

² Sheetlines 75, 47-48.

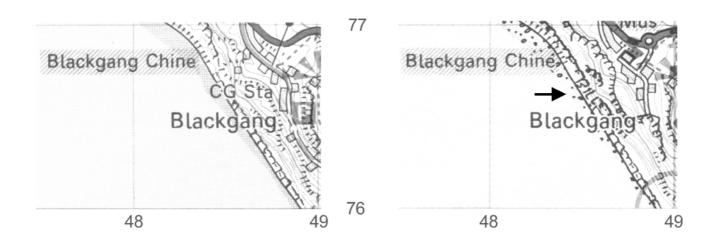
Maybe the idea of a Treacle Mine is not so daft either. A correspondent to a local newspaper suggested that coarse sugar beet could crop two or three times a year whether harvested or not. These would overgrow each other and 'mulch down' similar to peat, several metres in depth. Sugar beet was a common crop in the Tamar Valley of West Devon and perhaps hundreds of years of compressed beet forming a dense black layer ...





Cliffs on the Isle of Wight, as depicted on Landranger sheet 196

The extracts are taken (top and below left) from edition A, 1980, and (above and below right) from edition <u>D2</u>, 2005. Arrows indicate the points of interest. © Crown Copyright NC/00/1340.



Coastal graffiti

In a recent lively Internet discussion¹ on the surreptitious insertion of elephants, imaginary garden sheds and other fictitious detail into published mapping, David Archer reminded us of his earlier revelation that on 1:50,000 Second Series sheet 196, *Solent and Isle of Wight*, 'A' printing, a name appears in the cliff face at SZ 330853, above the word 'Nodes'.²

On looking at my latest, 2005, <u>D2</u> edition of the same sheet, I was surprised to see that not only was the name, 'Birse', still there but, as the illustrations show, it looks as though someone called Trev(?) has been busy some 1500 metres further west, while it must have been a draughtsman called Bill who repaired the cliff detail after removal of the annotation 'C G Sta' near Blackgang at SZ 485766.

The graffiti can also be seen by going to the OS website, typing the grid references (without spaces) into the Get-a-mapTM link and zooming out to 1:50,000 mapping.

Chris Higley

Repairs to cloth maps

Can someone please advise me of a suitable type and source of cloth to replace, or rather reinforce, the backing on mounted one-inch maps, and a suitable adhesive?

Chris Noble

For small repairs to weak or split folds I use archival quality adhesive cloth repair tape from Papersafe,³ but does anyone have experience of larger conservation work? – CJH.

An anomaly on the Cromford & High Peak Railway

I first got to know the remarkable Cromford & High Peak Railway in the southern Peak District of Derbyshire during the 1939-45 war, when family holidays were taken at Cromford because the seaside was 'out-of-bounds'. On sporadic visits subsequently I got to know it better, both during its later years of operation and its final transformation into the High Peak Trail. I have been fortunate enough to have had a number of my photographs and comments reproduced in various specialist railway and industrial archaeology publications. It thus came

See the March 2006 archives at http://uk.groups.yahoo.com/group/ordnancemaps/

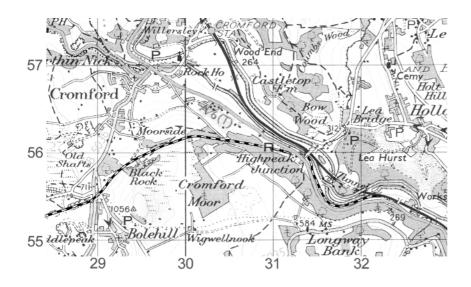
² Reported at *Sheetlines 63*, 55.

www.papersafe.demon.co.uk or telephone 01630 652217.

as a surprise recently to discover some confusion in the exact location of the name 'High Peak Junction'.

The southern end of the line terminated originally in 1830 at a transfer wharf on the bank of the Cromford Canal, about 1¼ miles south east of Cromford village along the route of the present A6 road. This lay just beyond the foot of the rope-operated Sheep Pasture Incline, which led the line from the Derwent Valley to the higher limestone hills. In 1853 the line was extended by a mile to connect with what later became the main Derby to Manchester line of the Midland Railway. A signal box named High Peak Junction and transfer sidings were installed here and the official distance to the foot of the incline was recorded by the railway company as 1½ miles. The line was operated and later taken over by the London & North Western Railway Company.

There was a substantial covered loading area and warehouse at what generally became known as Cromford Canal Wharf, or just Cromford Wharf; the railway company designated the area 'Cromford Goods'. The canal, however, continued towards the village and terminated across the road from Arkwright's original cotton mill at another wharf, leading to possible confusion. At the foot of the incline, often referred to as 'Sheep Pasture Bottom', there were workshops and staff accommodation. These buildings now house a small museum and interpretation area on the route of the High Peak Trail.



The former course of the Cromford & High Peak Railway has been emphasised by the chequered line added to this extract from the Peak District one-inch Tourist Map of 1970.

© Crown Copyright, NC/00/1340.

Despite the fact that the actual railway junction, grid reference SK 322555, with its named signal box, was over a mile away, successive Ordnance Survey maps, from the one-inch Popular down to the present Landranger together with the relevant 2½ inch maps, have labelled the area at the foot of the incline, SK 313559, as 'High Peak Junction'. There has never been any suggestion of a junction of railway lines here, as the Midland main line passes at a lower level and also on the far side of the canal. It would be interesting to learn when and how Ordnance Survey adopted this naming. The nineteenth century 25-inch map prints the name a little way from the railway lines, across the main road and in a farm orchard. A Post Office is also marked nearby; is it possible that this adopted the High Peak Junction name as a matter of convenience and OS took it from there? It would be interesting to hear comments or, better still, an explanation!

Southampton's Gas Monument



One of the more unusual, if not unique, features shown on the 1:1250 map of Southampton is the Gas Monument. A small rectangle on the map but on the ground, a tall handsome blue classical column set on a stepped stone plinth and surmounted by an elaborate golden cup and ball. This stone gas flame was erected honour of William in Chamberlain Esquire, the local commemorate landowner, to his generous gift of the iron standards which supported the street gas lights installed in the town in 1822.

The monument has been located in several different places near the centre of the old town but it now graces the southern end of Houndwell park, an ideal setting at present with all the surrounding colourful spring flowers. The gas works itself was located in a much less salubrious part of the town and is depicted in Ellis Martin's drawing of an industrial scene. The great pall of smoke billowing from the tall black building in the centre of the picture is actually steam produced by

the white hot coke which was pushed out of the coke ovens into a steel skip and thrust under a deluge of water, causing a great roar as the steam burst out.

I used to see this happening when I cycled four miles to school every day over Peartree Green in the early 1930s and the roar was repeated every ten minutes or so. There was a good view of it from Peartree Green across the river, above Ellis Martin's viewpoint, although this is now partially obscured by trees which have grown up since.

The gas works is of course long gone, but after the site was cleaned up the splendid new Southampton football stadium of St Mary's arose in its place, albeit with a couple of old gas holders still used for North Sea gas standing nearby. But on a Saturday the roar still comes across the town and those outside the stadium immediately know, by the volume of sound, whether it is Saints or the visitors who have scored.

Phil Broomfield

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Sheetlines 74, 50

Tales from an overseas member

There are not many of us 'OMs'. At the last count, just nine. My nearest CCS neighbour is just over 2000 miles away in Taipei, hardly the kind of distance one would travel for a quick chat about the variation in the covers of the one-inch Seventh Series.

Much of my working life has involved maps and map-related tasks. I have enjoyed the privilege of meeting with many of the national survey agencies in Europe and Asia on their home turf. One of the highlights of recent years was to attend the 200th anniversary of the commencement of the Great Trigonometrical Survey, at the Survey of India HQ in Dehra Dun. The time in India also included a personal visit to the original baseline at St Thomas's Mount near Madras, from which the great triangles of India were calculated and drawn. William Lambton measured the famous baseline in the spring of 1802.

Sheetlines is always eagerly awaited. It is a great communicator of news and views and is much appreciated out here. There are very few activities better than taking a day's leave, sitting under a hot, equatorial sun, tempered by a tropical sea breeze and waving palm fronds, reading about the states and variations of Seventh Series sheet 94, *Preston*. Especially in November!

However, since my first visit to Asia, I have found two very significant and related developments that have transformed my life as a CCS OM. One is the Worldwide Web. The other is e-Bay. I have not identified email, because correspondence has always been possible. Email has simply helped to facilitate this with far greater speed and therefore convenience. Apart from the CCS website, the 'www' has opened up countless other sites of fascinating information on OS mapping. Although the quality and quantity of web content varies greatly, at the last count there were just under ¼ million hits for 'Ordnance Survey'. This huge conduit of information is a wonderful facility for OMs who do not have direct access to UK map collections. It has been particularly useful in Singapore, where, sad to say, the national collections are particularly weak on maps and mapping information, both local and worldwide.

As we all know, e-Bay has brought the marketplace into our own homes. Without purchasing anything (if this can be resisted!), it is almost like having a CCS AGM marketplace every week on your desk. Before I hear the howls from some, I must add that as one who used to diligently search the local bookshops of any town whilst passing through, I do believe that there is nothing to replace the actual handling of an exciting 'find'. But, in all fairness, e-Bay not only helps make up for the absence of these former forays, it also passes across the screen some lovely examples of what are available in the market. Being a spectator from 11,000 miles away and to see what might be on offer in Ashby de la Zouch, Puddletown and Grantown-on-Spey, gives one a comforting feeling of being involved in the market for old OS maps back at home.

All this needs to be seen in the context of having seen only one 'live' second-hand OS map during my time out here. I had to restrain myself when I suddenly spotted a rather tatty old Seventh Series in a bookshop in Brisbane, Australia. For the experts, it was definitely a Scottish sheet, H99.1 long cover, RO 12, carrying a new crown for Scotland on the front cover, was priced at 5/6, had a BX7 spine and was a 6R category. I was not able to check whether Foula was to sheet 2 or to sheet 4 on the index, as the back cover was missing (probably termites). A quick assessment gave it a sad 2/1. However, quite amazingly in Wellington, NZ, I did purchase an Alan Godfrey sheet of Guildford. Altogether the sheet cost

me £480.35 (economy class). Is this a record for a Godfrey sheet? The 35p, by the way, was the cost of the map itself (perhaps this is a record too!).

Apart from the computer, one struggles to maintain an active, hands-on interest in second-hand OS maps. From what I have seen, there is obviously very little in the way of physical material in the free market this side of the Suez. Furthermore, the nearest National Library with a substantial run of old OS maps is in Canberra, Australia. There are certainly no weekend map markets to delight in (I much enjoyed Roly's contributions to *Sheetlines*¹). I have just one map colleague here in Singapore who has any real interest in the history of the Ordnance Survey. I have yet to convince him of the value of becoming a member of the CCS, but I am working on it and waving the CCS flag as hard as I can. Perhaps next time we meet for coffee, I can take a couple of pristine Fifth Relief sheets. On second thoughts, I might spill the coffee!

To distract me from the computer screen, once a year I make a visit to the UK to keep an eye on our two daughters at University. Anna, our second daughter, is studying geography at Southampton and is interested in working at OS (the sins of the father ...). Naturally, these return visits to Blighty have not been without some OS fishing (priority over family of course!). Being tempted back into the ever-decreasing number of old bookshops, quite surprisingly, I have stumbled upon some quite good successes. A couple of years ago, I walked away from one shop with a nice collection of fifteen one-inch Fifth Edition, all in pristine condition. Not the Relief version I hasten to add, which would have caused some major heart problems! This certainly made up for the paucity of materials east of Suez for one year, at least. The sheets remain in storage awaiting a happy reunion sometime in the future.

My current work, as a private map consultant, involves helping to organise the forthcoming International Map Trade Association (IMTA) international map conference and trade fair to be held here in Singapore. The hotels, conference venue, exhibition halls, speakers, workshops and local visits are all being lined up for mid-November 2006. I trust that both the Ordnance Survey and Alan Godfrey Maps will be here as part of 'the great and the good' of the survey and mapping world. It will be a great event – the first international IMTA conference in Asia itself, hopefully with inroads into the Chinese and Indian markets. I might even have a little stall for myself. The only problem is what do I market? Anybody in Singapore interested in a Popular of Seaton & District, print code 5000/33 in excellent condition?

I finish with one question. Why are the Popular and subsequent one-inch series sheets of eastern England attracting much higher prices than the rest of the country? In particular, sheets of Hull, Grimsby, Sleaford, etc. all fall within this category. One almost needs a top-up mortgage for some of them. Were there boundary changes? Perhaps limited print runs? Or is it grasping hands for some really rare sheets in this region?

I look forward to meeting my CCS colleagues at some future AGM. In the meantime, for 2006, enjoy Ludlow and keep up the good work!

Julian Williams, Singapore

¹ There is at least one further copy of the *Description of small-scale maps*, 1935 in the Far East. I have one here! (*Sheetlines 73*, 25, note 1).

New maps

Jon Risby

This list covers small scale maps published between 7 March and 30 June 2006. They are listed by series, and in sheet number order. The columns are as follows: Sheet No. / Title / Edition / Copyright date / Full revision date (except for *Explorer* maps) / Latest revision date / Date of publication. There is also a list of those maps due for publication by OS (by series and in order of their proposed publication).

After the list of OS maps is a résumé of maps published by Alan Godfrey between March and June 2006.

OSGB maps

New editions noted ¹ in column 6 are 'Reprinted with minor change'

New editions noted ² in column 6 are 'Revised for selected change'

New editions noted ³ in column 6 are 'Revised with selected change'

New editions noted ⁴ in column 5 are 'Revised for significant change'

New editions noted ⁵ in column 6 are 'Revised with significant change'

Where details are shown in *italics* I have not been able to confirm the details by seeing the map itself, and therefore information is based on Ordnance Survey's list of new publications. I hope that I shall be able to confirm information in the next edition of *Sheetlines*.

I apologize to members for the number of question marks and italicised text in this issue. I'm afraid circumstances have prevented me getting to London to check details, but the situation will be resolved in the next issue.

<u>Landranger – new editions</u>

26 38	Inverness & Loch Ness, Strathglass Aberdeen, Inverurie & Pitmedden	<u>C1</u> <u>C</u>	2006 2006	1999 2001	2006 ¹ 2006 ¹	09/03/06 09/05/06
40	Mallaig, Glenfinnan & Loch Shiel	<u>C1</u>	2006	2000	2006 ¹	08/05/06
95	Isle of Man	C	2006	2006	?	24/04/06
119	Buxton, Matlock, Bakewell & Dove Dale	C3	2006	?	2006^{2}	27/03/06
144	Thetford, Diss, Breckland & Wymondham	B2	2006	1999-2000	2006^{2}	26/06/06
153	Bedford, Huntingdon, St Neots & Biggleswade	C3	2006	1998	2006^{2}	21/04/06
155	Bury St Edmunds, Sudbury & Stowmarket	D2	2006	2000	2006^{2}	30/05/06
164	Oxford, Chipping Norton & Bicester	D1	2006	2001	2006^{2}	08/03/06
165	Aylesbury, Leighton Buzzard, Thame & Berkhamstead	D1	2006	2001-02	2006^{2}	05/06/06
166	Luton, Hertford, Hitchin & St Albans	C3	2006	1998-99	2006^{2}	23/05/06
168	Colchester, Halstead & Maldon	C2	2006	1998	2006^{2}	24/05/06
169	Ipswich, The Naze & Clacton-on-Sea	C2	2006	1998	2006^{2}	23/05/06
173	Swindon, Devizes, Marlborough & Trowbridge	D1	2006	2001	2006^{2}	24/04/06
175	Reading, Windsor, Henley-on-Thames & Bracknell	C2	2006	1999	2006^{2}	11/04/06
192	Exeter, Sidmouth, Exmouth & Teignmouth	<u>C3</u>	2006	1997	2006 ¹	28/03/06
202	Torbay, South Dartmoor, Totnes & Salcombe	<u>D</u>	2006	2002	2006 ¹	06/04/06

$\underline{Explorer-new\ editions}$

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35	North Pembrokeshire	<u>A1</u>	2006	-	2006 ¹	20/04/05
36	South Pembrokeshire	A1	2006	-	2006 ¹	13/04/06
184	Colchester, Harwich & Clacton-on-Sea	A1	2006	-	2006^{2}	03/04/06
195	Braintree & Saffron Walden	A1	2006	-	2006^{2}	03/04/06
196	Sudbury, Hadleigh & Dedham Vale	A1	2006	-	2006^{2}	03/04/06
197	Ipswich, Felixstowe & Harwich	A1	2006	-	2006^{2}	03/04/06
202	Leominster & Bromyard	<u>A1</u>	2006	-	2006 ¹	18/04/06
210	Newmarket & Haverhill	<u>A1</u>	2006	-	2006^{2}	03/04/06
211	Bury St Edmunds & Stowmarket	A1	2006	-	2006^{2}	03/04/06
212	Woodbridge & Saxmundham	A1	2006	-	2006^{2}	03/04/06
226	Ely & Newmarket, Mildenhall & Soham	A1	2006	-	2006^{2}	03/04/06
227	Peterborough, March, Whittlesey, Chatteris & Oundle	A1	2006	-	2006^{2}	03/04/06
228	March & Ely, Chatteris & Littleport	A1	2006	_	2006^{2}	03/04/06
229	Thetford Forest in The Brecks, Thetford & Brandon	A1	2006	_	2006^{2}	13/03/06
230	Diss & Harleston, East Harling & Stanton	A1	2006	_	2006^{2}	03/04/06
231	Southwold & Bungay, Halesworth & Kessingland	A1	2006	_	2006^{2}	03/04/06
234	Rutland Water, Stamford & Oakham	A2	2006	_	2006^{2}	13/03/06
235	Wisbech & Peterborough North,	A1	2006	_	2006^{2}	03/04/06
233	Market Deeping & Crowland	Δ 1	2000	_	2000	03/04/00
236	King's Lynn, Downham Market & Swaffham	A1	2006	_	2006 ²	03/04/06
237	Norwich & Wymondham, Attleborough & Watton	A1	2006	-	2006 ²	03/04/06
238	,	A1	2006		2006 ²	03/04/06
	East Dereham & Aylsham, Castle Acre & Reepham			-	2006 ²	
247	Grantham Rouges & Hagkington	A1	2006	-	2006 ²	03/04/06
248	Bourne & Heckington	A1	2006	-		03/04/06
249	Spalding & Holbeach	A1	2006	-	2006 ²	03/04/06
250	Norfolk Coast West	A2	2006	-	2006 ²	03/04/06
251	Norfolk Coast Central	A2	2006	-	2006 ²	03/04/06
252	Norfolk Coast East	A2	2006	-	2006 ²	03/04/06
260	Nottingham, Vale of Belvoir	A1	2006	-	2006 ²	13/03/06
261	Boston	A1	2006	-	2006 ²	03/04/06
270	Sherwood Forest	A2	2006	-	2006 ²	13/03/06
271	Newark-on-Trent, Retford, Southwell & Saxilby	A1	2006	-	2006 ²	03/04/06
272	Lincoln, Sleaford, Metheringham & Navenby	A1	2006	-	2006^{2}	03/04/06
273	Lincolnshire Wolds South	A1	2006	-	2006^{2}	03/04/06
274	Skegness, Alford & Spilsby	A1	2006	-	2006^{2}	03/04/06
282	Lincolnshire Wolds North	A1	2006	-	2006^{2}	03/04/06
283	Louth & Mablethorpe	A1	2006	-	2006^{2}	03/04/06
284	Grimsby, Cleethorpes, Immingham,	A1	2006	-	2006^{2}	03/04/06
	Caistor & North Thoresby				•	
289	Leeds, Harrogate, Wetherby & Pontefract	A1	2006	-	2006^{2}	03/04/06
290	York, Selby & Tadcaster	A1	2006	-	2006^{2}	03/04/06
291	Goole & Gilberdyke	A1	2006	-	2006^{2}	03/04/06
292	Withernsea & Spurn Head	A1	2006	-	2006^{2}	03/04/06
293	Kingston upon Hull & Beverley	A1	2006	-	2006^{2}	03/04/06
294	Market Weighton & Yorkshire Wolds Central	A1	2006	-	2006^{2}	03/04/06
295	Bridlington, Driffield & Hornsea	A1	2006	-	2006^{2}	03/04/06

All of the above show Access Land and are in new style *Explorer* covers. No full revision date is given.

Explorer Map Active – new publications

The *Explorer Map Active* sheets listed as forthcoming in *Sheetlines 75* were duly published on the 13 March 2006 (with the exceptions of sheets 197, 212, 231, 250, 251, 252, 289 and 290 which were published on 11 April). Edition details are the same as the current edition of the 'standard' appropriate *Explorer* sheet.

Explorer Map Active – new edition							
29	Isle of Wight	<u>B1</u>	2006	-	2006 ¹	05/05/06	
<u>Travel Maps, Tour series – new editions</u>							
23 18 19	Herefordshire Surrey, W & E Sussex, SW London Kent & SE London	B C C	2006 2006 2006	? ? ?	? ? ?	24/04/06 04/05/06 04/05/06	
Irish m	eaps						
Genera	1 Irish maps						
	Ireland Leisure Map Ireland Culture Map					27/04/06 27/04/06	
<u>Irish stı</u>	reet maps						
	Belfast					13/04/06	
Discove	ery maps – new editions						
64	Clare, Kerry, Limerick		thire	d edition		06/06/06	
OSI Tra	ail Master – interactive mapping (DVD)						
	East			2005		13/03/06	
	West			2005		13/03/06	
	oming OSGB maps lowing maps have been announced for publica	ition.					
Landra	nger – new editions						
154 142 125 130 133 134 176 177 104	Cambridge, Newmarket & Saffron Walden Peterborough, Market Deeping & Chatteris Bala & Lake Vyrnwy, Berwyn Grantham, Sleaford & Bourne North East Norfolk, Cromer & Wroxham Norwich & The Broads, Great Yarmouth West London, Rickmansworth & Staines East London, Billericay & Gravesend Leeds & Bradford, Harrogate & Ilkley				D1 D1 C2 C2 D1 D1 D4 E3 C3	10/07/06 24/07/06 28/08/06 28/08/06 28/08/06 28/08/06 25/09/06 09/10/06	

112 111 120 122	· · · · · · · · · · · · · · · · · · ·		C2 C2 D1 C2	09/10/06 16/10/06 30/10/06 30/10/06
Explor	er – new editions			
309	Stranraer & The Rhins		A1	21/08/06
310			A1	21/08/06
311	Wigtown, Whithorn & The Machars		A1	21/08/06
312	Kirkcudbright & Castle Douglas		A1	21/08/06
313	Dumfries & Dalbeattie		A1	21/08/06
314	Solway Firth, Wigton & Silloth		A2	21/08/06
315	Carlisle, Brampton, Longtown & Gretna Green		A1	21/08/06
317	Ballantrae, Barr & Barrhill	(A)	A1	21/08/06
318	Galloway Forest Park North	(+A)	A1	21/08/06
319		(+A)	A1 A1	21/08/06
320 321	Castle Douglas, Loch Ken & New Galloway Nithsdale & Dumfries		A1	21/08/06 21/08/06
321	Annandale		A1	21/08/06
323	Eskdale and Castle O'er Forest		A2	21/08/06
323	Liddesdale & Kershope Forest		A2 A2	21/08/06
327	Cumnock & Dalmellington		A1	21/08/06
328	Sanguhar & New Cumnock		A1	21/08/06
329	Lowther Hills, Sanguhar & Leadhills		A1	21/08/06
330	Moffat & St Mary's Loch		A1	21/08/06
345	Lammermuir Hills		A1	21/08/06
350	Edinburgh	(+A)	A1	21/08/06
351	Dunbar & North Berwick	(. , , ,	A1	21/08/06
326	Ayr & Troon		A1	09/10/06
331	Teviotdale South	(+A)	A1	09/10/06
352	Islay South	,	A1	09/10/06
353	Islay North		A1	09/10/06
354	Colonsay & Oronsay		A1	09/10/06
355	Jura & Scarba		A1	09/10/06
356	Kintyre South		A1	09/10/06
357	Kintyre North		A1	09/10/06
358	Lochgilphead & Knapdale North		A1	09/10/06
15	Purbeck & South Dorset	(+A)	B2	23/10/06
22	New Forest	(+A)	B2	23/10/06
148	Maidstone & the Medway Towns	(+A)	B2	23/10/06

Maps shown in the list above as (+A) will also be published in *Explorer Active* format on the same date as the standard edition.

<u>Travel Maps – Tour Series, new editions</u>

16	Beds, Bucks, Herts, NW London	С	07/08/06
17	Essex & NE London	С	07/08/06
15	London including M25	С	14/08/06
7	Hampshire & the Isle of Wight	С	25/09/06
9	Dorset, Somerset East, Bath & Bristol	С	25/09/06
13	Oxfordshire & Berkshire	С	20/11/06

Alan Godfrey Maps

Details of Alan Godfrey's reprints of old OS maps are available from Alan Godfrey Maps, Prospect Business Park, Leadgate, Consett, DH8 7PW, tel. 01207 583388, fax 01207 583399, or from their website at http://www.alangodfreymaps.co.uk/. Maps may now be ordered directly from the website.

The columns are as follows: County / Sheet number / Title / Date of map / Month of issue.

Argyllshire	257.08	Campbeltown	1898	5/06
Co. Durham	8.01	East Boldon	1895	6/06
Co. Durham	8.13	Sunderland (Pallion)	1895	3/06
Co. Durham	20.04	Hetton Downs & Rainton Bridge	1895	4/06
Cornwall	10.07	Boscastle	1905	5/06
Dumbartonshire	17.06	Craigendoran & Helensburgh (East)	1897	6/06
Lanarkshire	11.15	Stonefield, Auchinraith & Burbank	1897	4/06
Lancashire	50.12	Blackpool (North Pier & Town Centre)	1910	5/06
Lancashire	93.03	Wigan (NW)	1907	4/06
Lancashire	110.08	Ashton-on-Mersey & Sale	1927	5/06
London	103	Peckham	1871	6/06
London	117	East Dulwich	1894	4/06
Nottinghamshire	38.14	Nottingham (NW)	1913	4/06
Oxfordshire	14.11	Chipping Norton	1919	6/06
Renfrewshire	16.02	Neilston	1895	4/06
Shropshire	43.10	Coalbrookdale & Lightmoor	1901	4/06
Staffordshire	67.14	Shut End & Tansey Green	1903	5/06
Surrey	12.13	Hampton Court & East Molesey	1912	6/06
Warwickshire	21.08	Coventry (North)	1912	3/06
Warwickshire	21.11	Coventry (West)	1904-11	3/06
Warwickshire	21.16	Coventry (South)	1912	3/06
Yorkshire	37.15	Reeth & Grinton	1910	3/06
Yorkshire	275.01	Cudworth	1904	5/06

England and Wales one-inch

54	Scarborough, Filey & District (includes map of Brompton)	1896	3/06
155	Market Bosworth & District (includes map of Market Bosworth)	1902	6/06
158	Peterborough & District (includes map of Deeping St James)	1908	6/06
160	Watton, Swaffham & District (includes map of Watton)	1908	4/06
211	NW Carmarthenshire (includes map of Llanpumsaint)	1912	3/06
218	NW Oxfordshire (includes map of Salford)	1911	6/06
265	Bath, Marshfield & the Vale of Avon (includes map of Marshfield)	1912	5/06
283	Andover, Whitchurch & the Hampshire Downs (includes map of Weyhill)	1898	3/06
284	Basingstoke, Odiham & District (includes map of Sherborne St John)	1912	5/06

Below are the one-inch Alan Godfrey reprints from *Sheetlines 75*, this time with the names of villages included (and in the correct order!). My apologies for their previous omission.

139	Stafford & District (includes map of Gnossall)	1898	1/06
229	Carmarthen & the Towy Estuary (includes map of Carmarthen)	1909	2/06
230	Ammanford & District (includes map of Llandybie)	1908	2/06
313	The Blackmore Vale (includes map of Stalbridge)	1903	2/06
354/355	Eddystone, Salcombe & Bigbury Bay	1908	1/06