

## ORDNANCE SURVEY RECORDS

The origins of the Ordnance Survey.

The variety of scales used and the different series of maps issued.

The presumptions and the conventions of the OS.

The variety of records kept by surveyors and what might still survive.

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### 1. Some Basic Principles

1.1 The purpose of this note of various Ordnance Survey matters is not to duplicate the existing material which is available on the subject of the Ordnance Survey and the maps that have been created by it. The origins and history of the Ordnance Survey are found in, amongst others, Brian Harley's work "*Ordnance Survey maps: a descriptive manual*"<sup>1</sup>. However the historian's guide which might have followed the success of the publication of the Manual did not arrive before the sad death of Brian Harley some 12 years ago.

1.2 As a result, one of the few recent guides for historians is one that is written by me. It is entitled "*Ordnance Survey maps: A concise guide for historians*" published by the Charles Close Society in 1993<sup>2</sup>. The items identified in this note are described in greater detail and considered along with a wide variety of other features in the *Concise Guide*.

1.3 This document is little more than a short note of the items touched upon in the 192 pages of the *Guide*. However the notes have been chosen with the subject of rights of way in mind, and may assist you in using the Guide and other material to help you interpret Ordnance Survey data in your day to day to day work as right of way officers. The *Concise Guide* also lists the maps available by County, a list which will assist any officer needed to be certain about the mapping data available for a particular area<sup>3</sup>. The extracts in this document taken from the *Concise Guide* are reproduced with kind permission of the Charles Close Society and Dr Richard Oliver.

#### **Date of survey**<sup>4</sup>

1.4 If the date is before 1887 it is the date on which the fair-drawn plans were signed by the Divisional Officer. This was the date when they were deemed fit for publication. After August 1887 the survey date became the year or years when the final examination of the plan by the final examiner was undertaken. (SC 16:9; 1887). However there can often be differences between the survey date shown on a first edition and that shown on later revised editions. This followed the change in

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<sup>1</sup> *Ordnance Survey maps: a descriptive manual* (1975); Now out of print but still cited by the British Library as further reading on the subject.

<sup>2</sup> SBN 0 870598 13 X

<sup>3</sup> This information is contained between pages 123 – 171 of "*Ordnance Survey maps: A concise guide for historians*"

<sup>4</sup> Further reading can be found at page 54 of the *Concise Guide*.

instructions after 1887 when the survey date was changed again to the latest month of field examination. Further details about the date for 1:2500 and 1:10,560 scales are given on page 55.

### **Editions<sup>5</sup>**

- 1.5 A new edition is a new map, one that has been completely revised. Further copies of the original map are technically reprints. Some reprints contain limited revised data, for such things as railways or boundaries. In this case the reprint should be marked with a clear explanatory note such as "Boundaries revised to *date*". This note will usually be added near the foot of the map. (SC, 14:6:1893)

### **Legal value<sup>6</sup>**

- 1.6 The legal value of Ordnance Survey mapping has been considered in two judgements. There is no legal obligation for the Ordnance Survey to undertake the mapping of boundaries as section 41 of the Survey Act 1841 merely provides for such work to be authorised and facilitated. It is not a mandatory requirement.

#### ***"Act not to affect any Boundaries or rights of property***

12 *And be it enacted, that this present Act, or any Clause, Matter, or Thing herein contained, shall not extend, or be deemed or be construed to extend, to ascertain, define, alter, enlarge, increase or decrease, nor in any way to affect, any Boundary or Boundaries of any County, City, Borough, Town, Parish...nor the Boundary or Boundaries of any Land or property, with relation to any Owner or Owners, or Claimant or claimants of any such Land respectively, not to affect the Title of any such Owner or Owners, or Claimant or Claimants respectively, in or to or with respect to any such Lands or Property, but that all Right and Title of any Owner or Claimant of any Land or Property whatever within any Hundred, Parish, or other Division or Place whatever, shall remain to all intents and Purposes in like State and Condition as if this Act had not been passed..."*

- 1.7 As a result of the boundary information being authorised to be created rather than required, it follows that there the legal validity of the information is limited. After all, it would be odd to have information which may or may not be provided having legal effect; otherwise the absence of evidence would become evidence of absence. However, when the maps do show boundaries they are taken as *prima facie* evidence of the existence of the matters recorded on the map concerned.
- 1.8 The case that was always cited as part of this discussion was the Court of Appeal decision of *Fisher v. Winch*<sup>7</sup>. Although still of use it should be remembered that it does not enable wholesale reliance on any form of Ordnance Survey data. The limitation on the application of the case was highlighted by the House of Lords in the case of *Alan Wibberley Building Limited v Insley*<sup>8</sup>.

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<sup>5</sup> Further reading can be found at page 55 of the *Concise Guide*.

<sup>6</sup> Further reading can be found at page 60 and then 50 of the *Concise Guide*.

<sup>7</sup> [1939] 2 All ER 144

<sup>8</sup> [1999] UKHL 15

1.9 Lord Hope of Craighead said:

*“In Fisher v. Winch ..... the dispute concerned a boundary which had been created by the separation into two separate parcels of land previously in common ownership. The title of the common owner was not in question. What was in issue was simply the line of the boundary, bearing in mind the fact that the common owner could not convey the same piece of land on successive days to two different purchasers. In the present case there was no common owner, so the solution to the dispute must be found by analysing the titles of each party in order to identify the limits of each party's ownership. In neither case was the title identified by reference to Ordnance Survey maps until quite recently. This was done long after the ditch was dug and the hedge was planted. It was no doubt convenient to refer to the map in subsequent conveyances for identification purposes. But these references did not enable the owner to convey to another a title to land over which he himself had no title. They did not remove the need to examine the titles in the event of a dispute, as it was one between the owners of land not previously in common ownership.”*

1.10 The other case usually quoted is the first instance decision of *Davey v. Harrow Corporation*<sup>9</sup>. The application of the case can be demonstrated simply by reference to one of the more recent Inspector's decisions. This extract comes from the 1999 decision letter of the Inspector who considered a claim for a footpath at Vernhams Dean in Hampshire:

*“The Ordnance Survey maps of 1909 and 1923 show a physical feature passing very close to the south of School Hill Cottage. But it is not until the 1/2500 1978 edition that the Ordnance Survey map shows a solid physical feature on both sides of the route. Neither that map, the 1/1250 Land Registry Plan, the map used in connection with the planning application made in 1983, nor the map produced from digital data supplied by the Ordnance Survey in 1997 and used for the order plan indicate any narrowing of the route between points D and C. The Council is correct in stating that this map evidence shows that at no point has the route had a width of less than 1 metre. The best interpretation of these maps is that they show the route as having a width of 1 metre.*

*It is uncertain whether the intrusion into the width of 1 metre comes from the north or from the south (or from both). It is not certain that the fence which was put up in the early 1960s to separate the land which now comprises West View from School Hill Cottage was on the northern boundary of the footpath. Nor is it certain that the other fence and the hedging which were later provided were on the southern boundary of the route.*

*However, I agree the Council's view with reference to the 1978 Ordnance Survey map that those features indicate the boundaries of the footpath as they had become established since 1923. Fences mark the limit of the highway unless there were acts of ownership to rebut that presumption (Attorney General v Moorson Roberts (1908) JP 123), and the Courts will take notice of*

<sup>9</sup> [1957] 2 All ER 305

*the Ordnance Survey practice of showing as boundaries the centreline of hedges as in Davey v. Harrow Corporation [1957] 2 All ER 305.”*

### **Names**<sup>10</sup>

- 1.11 It should be remembered that there is no national body which records or allocates names and spellings for locations and mapping data. The Ordnance Survey has no statutory role either, and the recording and naming that takes place is a task which has arisen from the necessity to describe places on the maps that are created. How the names are established is through such enquiries as are appropriate to establishing the most suitable name, form and spelling for places shown. Conflicts between responses are settled by the Ordnance Survey itself. The record of these enquiries was made through name books. The books remain for only five counties in England; Cumberland, Durham, Hampshire, Northumberland and Westmorland.

### **National Grid mapping**

- 1.12 A series commenced in 1948 and completed across the whole country in the 1980's. Detail on the County series maps were accepted as accurate unless obviously incorrect. Resurveys took place for a minority of sheets. Metrication applied to all new and revised maps published from 1970. The metrication of the data was a process of conversion only, and no additional surveys were undertaken for this purpose. Revisions ceased in 1992 with the intention of completing digitisation by 1995.

### **Reprints**

- 1.13 See Editions

## **2. The Depiction of Detail**

### **Bridle roads**<sup>11</sup>

- 2.1 These are features regarded as passable on horseback. *‘They are sometimes the width of cart tracks, sometimes only of footpaths’.*
- 2.2 From 1884 the **B.R.** notation was used for bridleways.<sup>12</sup>

### **Buildings**<sup>13</sup>

#### *Colouring*

- 2.3 These were hand-coloured on maps on: almost all 1:2500 first edition maps<sup>14</sup>  
some 1:500 maps  
some 1:528 maps

Wood or iron construction may be indicated by grey or more rarely black tinting. This is distinguished from the convention on some tithe and other pre-OS mapping where carmine was used to indicate inhabited buildings and grey was used to indicate uninhabited buildings.

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<sup>10</sup> Further reading can be found at page 61 of the *Concise Guide*.

<sup>11</sup> Further reading can be found at page 50 of the *Concise Guide*.

<sup>12</sup> **B.R.** can be used to indicate *Brass Rivet*, *Bridge* and *Brow* as well as *Bridle Road*.

**Br** can also indicate *Bridge*.

<sup>13</sup> Further reading can be found at pages 50-52 of the *Concise Guide*.

<sup>14</sup> (Excepting those in some maps of Scotland and London.)

*Minimum Dimensions*

- 2.3.1 “All permanent buildings and objects whose plan covers an area of 8 sq metres or more will be shown. Smaller buildings and objects covering an area...will be shown when the building or object is in such a detached position as to be a relatively important topographical feature” or used as a survey control point or carrying a bench mark. (RB65, A17-18). Temporary buildings are not shown.
- |        |                                       |
|--------|---------------------------------------|
| 1:1250 | 1 sq metre or minimum dimension of 1m |
| 1:2500 | 4 sq metre or minimum dimension of 2m |
- 2.4 The main corners of the buildings will always be shown in their correct positions. “Small projections under 5 links (Dimension in metric) in buildings should not be shown”. (IFE05, 36) Juts, recesses, bay windows and porches may be mapped where they are smaller than this if they abut a public thoroughfare, were used as a survey control point or carry a bench mark.
- Fences**<sup>15</sup>
- 2.5 The Ordnance Survey has never recorded fences and hedges in a manner so as to distinguish one from the other. Temporary fences should not be recorded. As such one should not expect to see a sheep hurdle shown on the map, but a wooden post and rail fence should be shown where it is believed to be permanent. “In all doubtful cases timber or iron fences are shown.”
- Footpaths**<sup>16</sup>
- 2.6 Footpaths and bridleways were not normally shown as such on 1:10,560 and larger scales published before 1887. There are some exceptions in a number of 1:10,560 sheets and 1:2,500 first edition sheets in Yorkshire, North Riding and southern Durham. It may be that this anomaly was because of the OS officer in charge of the survey parties carrying out these surveys. Other than on these sheets, footpaths, bridleways, other tracks and minor roads can look similar.
- 2.7 From 1883 the *F.P.* notation was used for footpaths<sup>17</sup> so as to indicate that it was not a road traversable by horses or wheeled traffic (SC, 13:2:1884). The description of a footpath was intended to include “all footpaths over which there is well known and undisputed public right of way..” but in addition the same notation was used to show “private footpaths through fields (but not in gardens) if they are of a permanent character ...generally indicated by their being made or gravelled or provided with stiles and footgates....all gravelled and paved paths in public parks, gardens and recreation grounds...”
- 2.8 On National Grid mapping footpaths and bridleways have been treated as paths, and shown by straight lines between gates, stiles and other access points where they are not otherwise evident on the ground and run across fields.

<sup>15</sup> Further reading can be found at page 56 of the *Concise Guide*.

<sup>16</sup> Further reading can be found at page 57 of the *Concise Guide*.

<sup>17</sup> F.P. can be used to mean *Face of Paling* and *Fire Plug* as well as *Foot Path*.

## Fields and field names<sup>18</sup>

### Boundaries

- 2.9 Any feature which was not continuous obstacle at the boundary of the field was shown by a pecked line. This would include broken banks, hedges and walls. Continuous boundaries such as hedges were shown by a single line representing the roots in the centre of the hedge. Symbols may be used where a wide hedge is shown on the map. The required width for the use of symbols varied depending on the scale of the map. On 1:1250 maps the minimum width was over 5 metres, and on 1:2500 maps the minimum width was over 10 metres.

### Names

- 2.9.1 Field names were not intended recorded after 1888, and only the names of fields with particular or historical were collected and recorded.

## Hedges<sup>19</sup>

- 2.10 Hedges have not been recorded so as to be distinguishable from fences. Continuous and broken boundaries are shown in different ways. Hedges may be shown by symbols where the size of the hedge is large enough to be treated in this manner for the scale of the map. See **Fences** and also **Fields**

## Houses<sup>20</sup>

- 2.11 Houses, and the grounds that accompany them are described as 'house units'. This means "*any independent building large enough to be shown, complete with fences, etc., enclosing it, and with its number and name*". Changes to house units accumulate without a change being shown until a revision threshold is reached e.g. 300 units of change on a 1:1250 map will trigger the publication of a new edition. See **Buildings**.

## Obstructions<sup>21</sup>

- 2.12 An obstruction to a pedestrian is shown by a solid line. What is considered to be an obstruction is something at ground level which is over 0.3m in height. (RB63, A16)

## Paths<sup>22</sup>

- 2.13 '*A path, made or unmade, is defined as any established way other than a road or track ... Made paths are those whose surfaces are paved or metalled... Unmade paths whose existence is indicated by the evidence of disturbance to the ground and are continuous between successive access points.*' are also shown.
- 2.14 It is convention that widths are shown at a minimum of 1metre on 1:1250 and 1:2500 scales. On 1:10,560 and 1:10,000 the widths are exaggerated.

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<sup>18</sup> Further reading can be found at page 56 of the *Concise Guide*.

<sup>19</sup> Further reading can be found at page 58 of the *Concise Guide*.

<sup>20</sup> Further reading can be found at page 58 of the *Concise Guide*.

<sup>21</sup> Further reading can be found at page 63 of the *Concise Guide*.

<sup>22</sup> Further reading can be found at page 63 of the *Concise Guide*.

**Pecked lines**<sup>23</sup>

- 2.15 Pecked or broken lines are used to indicate features which are not obstructions to pedestrians or are indefinite. See **Obstructions**.

**Quarries**<sup>24</sup>

- 2.16 Only permanent detail and water features are shown in active quarries or pits. Vegetation will be shown in disused quarries. A quarry that has ceased to be active, and has passed through disuse to merge with the landscape is treated as a natural feature. This means that it may be shown by slope ornament or, on 1:10,560 and 1:10,000 contours will be shown.

**Rights of way**<sup>25</sup>

- 2.17 Since 1889 all Ordnance Survey maps have been annotated with the words "*The representation on this map of a road, track or footpath is no evidence of the existence of a right of way.*" It is assumed that the same principle can also be applied to maps before 1889.
- 2.18 Instructions to Surveyors required "*The surveyor will not enter into any discussion about the existence or otherwise of rights of way.*" (RB 63)
- 2.19 Information derived from published definitive maps has been incorporated on certain 1:25,000 maps, 1:50,000 maps and 1:63,360 maps. e.g. LandRanger series.

**Roads and ways**<sup>26</sup>

- 2.20 There is no systematic study of the mapping by the Ordnance Survey of roads and ways.
- 2.21 "*Ways are divided into three categories, i.e. roads, tracks and paths.... A road is defined as a metalled way for vehicles.... All roads, including metalled drives 40m or more in length, will be shown.*" according to the instructions to surveyors in 1963. (RB63, B54,68)
- 2.22 In 1885 it was directed that metalled carriage drives were to be shaded as 2<sup>nd</sup> class roads. The shading was to be "... *not quite so prominent as on public roads*". Shading replaces the sienna tinting on 1:2500 plans published before about 1880 and after 1884. The width was to be shown as not less than 20 links (about 4 metres) so as to assist when preparing the 1:10,560 plans. (SC, 25:6:1884).
- 2.23 Classification of the roads was shown after 1884. "*All metalled public roads for wheeled traffic kept in good repair by highway authority [whether county, district or parish surveyor] will....be shaded.*" (SC, 25:6:1884). Main or District roads were classified as first or second class roads. It was the surveyors to the Rural District Councils who settled the classification. First and second class roads are shaded on one side. Third class metalled and unmetalled roads are shown without shading. Shading ceased in late 1912.

<sup>23</sup> Further reading can be found at page 63 of the *Concise Guide*.

<sup>24</sup> Further reading can be found at page 64 of the *Concise Guide*.

<sup>25</sup> Further reading can be found at page 67 of the *Concise Guide*.

<sup>26</sup> Further reading can be found at page 67 of the *Concise Guide*.

- 2.24 “Good repair” was defined as “*it should be possible to drive carriages and light carts over them at a trot...*” (IFE05, 85)

#### **Sea walls**<sup>27</sup>

- 2.25 Masonry sea walls are shown as sloping walls. Natural spoil covered by vegetation is shown as an artificial slope. Boulder walls are shown as using the boulder symbol.

#### **Tide lines**<sup>28</sup>

- 2.26 Tide lines on Ordnance Survey maps mark important legal boundaries. The low water mark is the extent of the realm. The land between high and low water marks belongs to the Crown in most cases.

#### **Trees**<sup>29</sup>

- 2.27 Individual trees can be shown on some maps. They are shown on 1:10,560 and larger scale maps before 1893. After this date trees are only shown on 1:500 maps. Even then not all would be shown. Trees which might lead to confusion with boundary symbols were omitted.
- 2.28 Accuracy of depiction can be down to 1 metre where there is a single tree of prominence or historical interest. Otherwise single trees may be shown with an accuracy of about 5m, and trees in avenues are shown at 15 metre intervals where the avenue is spaced at 15 metres or less.

#### **Walls**<sup>30</sup>

- 2.29 Walls which are not part of buildings can be shown where they are above the threshold for the particular scale of the map. These thresholds are:
- |        |                     |
|--------|---------------------|
| 1:500  | - 0.5 link or 8 cm. |
| 1:1250 | - 1 metre.          |
| 1:2500 | - 2 metres.         |

Walls are shown by generally shown by double lines. Where the wall is a retaining wall then only the line of drop is shown.

#### **Water**<sup>31</sup>

- 2.30 Normal or average levels of rivers or bodies of water were shown before 1907. Since July 1907 surveyors have mapped water features at the maximum level, i.e high water mark at winter.

#### **Wells**<sup>32</sup>

- 2.31 Wells and springs at farms or cottages indicating the water supply will be shown .

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<sup>27</sup> Further reading can be found at page 69 of the *Concise Guide*.

<sup>28</sup> Further reading can be found at page 72 of the *Concise Guide*.

<sup>29</sup> Further reading can be found at page 73 of the *Concise Guide*.

<sup>30</sup> Further reading can be found at page 74 of the *Concise Guide*.

<sup>31</sup> Further reading can be found at page 74 of the *Concise Guide*.

<sup>32</sup> Further reading can be found at page 75 of the *Concise Guide*.



**Woodland**<sup>33</sup>

- 2.32 Various forms of woodland have been shown over the years. Until 1888 *birchwood*, *wood – coniferous*, *wood – deciduous*, *fir*, *brushwood*, *furze* and *osiers* were all indicated. Since 1888 the category of *birchwood* was abandoned. Since 1963 the categories were *coniferous*, *non-coniferous*, *coppice*, *scrub*. Density can also be shown, with various depictions for ‘*close*’ – less than 5 metres, ‘*medium*’ – 5-17 metres, ‘*open*’ – over 17 metres, and ‘*scattered*’.
- 2.33 Mapping will show horse rides and fire breaks, but not paths or tracks perceived as being temporary.

**3. Conclusions**

- 3.1 The subject of Ordnance Survey maps is easily described, but it is less easy to condense into a lecture. However, I hope that this note will serve as an introduction to the material that is available to assist, and I would be surprised if an assessment of the mapping data based upon a good knowledge of “*Ordnance Survey maps: a descriptive manual*”<sup>34</sup> and “*Ordnance Survey maps: A concise guide for historians*”<sup>35</sup> was not a good one.
- 3.2 The important thing that may assist you as officers dealing with public rights of way is to remember that the Ordnance Survey did not start out with the intention of recording rights of access, Furthermore the selection of the boundaries that were recorded was done with intention of depicting features using some of the principles I have mentioned above. If the Ordnance Survey appears to have recorded a boundary which is not shown in that manner in the contemporaneous document of land ownership one should bear in mind the wording in section 12 of the 1841 legislation. The intention was not to alter rights. The maps are records of features seen by each surveyor. The maps contain details about the date of some of surveys of the information recorded in them. They are useful tools for a variety of purposes, but for public inquiries they are records of features, but corroborative evidence at best of rights that are claimed to exist within features that shown.
- 3.3 In closing can I leave you with two observations which may assist you in your use of cartographic records generally, and Ordnance Survey data in particular. The first is of general application; Brian Harley noted that “...*the history of cartography is a vineyard where the field is large and the labourers are few*”. The second observation is my own made in the *Concise Guide* which may assist you when faced with map data which does not quite conform to your own expectations, or indeed those of cartographic historians such as myself; “*It is simply not possible to look at every map; one can merely hope that those which one has seen are fairly representative*”.

<sup>33</sup> Further reading can be found at page 75 of the *Concise Guide*.

<sup>34</sup> Op cit

<sup>35</sup> Op cit

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