

## A Vision of Britain Through Time

**Review Number:**

934

**Publish date:**

Thursday, 1 July, 2010

**Editor:**

Paula Aucott

**Date of Publication:**

2009

**Publisher:**

University of Portsmouth

**Publisher url:**

<http://www.visionofbritain.org.uk/>

**Place of Publication:**

Portsmouth

**Reviewer:**

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I recall a discussion with my supervisor at the outset of my postgraduate research about whether I should use a database to organise my findings. I was nudged not to follow in her Linnaean footsteps with an index card system. Her tale of laying out thousands of cards on her office floor and connecting them with lengths of coloured string in order to visualise linkages drove the point home. The development of database technology has spectacularly expanded our ability to make sense of the world, and it is nothing new to observe that this applies as much to the study of the humanities and social sciences as it does to other fields.

Of course, accurate cartography has a much older pedigree than electronic data analysis. In the 1340s William Rede, a fellow of Merton College, calculated the geographical coordinates of Oxford and, in the next decade, these measurements seem to have allowed a highly precise representation of the area around the city to be rendered in the Gough Map of Great Britain.<sup>(1)</sup> This may be said to be the earliest surviving evidence of accurate spatial mapping on this island.

The union of accurate mapping with the power of databases to categorise pieces of information – and then to ask complicated questions about the relationships between those pieces – spawned Geographical Information Systems (GIS). While GISs have been a very familiar tool in the geosciences since at least the 1970s, their application to historical records and research has really only come about in the last two decades<sup>(2)</sup>, as just one aspect of a wider growth in ‘digital humanities’ research, evident in networks like the Alliance of Digital Humanities Organizations (<http://digitalhumanities.org> [2]) and arts-humanities.net (<http://www.arts-humanities.net> [3]). The more specific field of Historical GIS has coalesced in recent years in gatherings coordinated by the Historical GIS Research Network (<http://www.hgis.org.uk> [4]) in the UK, and abroad in conjunction with international humanities and social science GIS networks.

It is in this milieu that the Great Britain Historical GIS (GBH-GIS) Project (<http://www.gbghis.org> [5]) emerged. The lead scholar in this project is historical geographer Dr Humphrey Southall, and since 2001 the project has been hosted by the Department of Geography at the University of Portsmouth. *A Vision of Britain Through Time* [6]

(hereafter *Vision of Britain*) is a web-based portal of the GBH-GIS Project. It is important to be clear that this portal is not a GIS in itself; rather, the GBH-GIS is what runs underneath it.(3) In July 2009 *Vision of Britain* was re-launched as a 'second edition' of the original site which first appeared in 2004, and it is this new edition that is the subject of the present review (the older version now having been replaced entirely).

The resources on hand are impressive. The site's header proclaims it to be 'a vision of Britain between 1801 and 2001. Including maps, statistical trends and historical descriptions' [*sic*]. The designers boast further that the site 'draws on and connects over 12 million historical facts, maps, observations and images to show how life has changed in some 15,000 British towns and villages over the past 250+ years'.(4) There is a boggling range of information at first arrival, and this is arranged under several headings: A 'places' search facility, and sections featuring historical maps, a statistical Atlas, census reports, travel writing, and 'learning resources'. Reviewing a website opens a number of possible avenues of approach, and what follows will narrate a clutch of illustrative interactions with *Vision of Britain*, chiefly through these headings. In this way, I think it is worth pointing out even comparatively minor issues of concern because evolving online resources such as these, unlike printed books, may still be works in progress. My intention is to offer constructive criticism.

Places are understood in a complicated way by this website, and an example will help to illustrate. Type the postcode HS3 3BG into the 'places' search facility on the home page and you will be taken to the associated point location on the Isle of Harris. However, this location is not identified as within the village of Tarbert. Instead you will be informed that it falls within the modern Scottish district of Eilean Siar. Now, type 'Tarbert' in to the same search facility and you will be disappointed: no such place is found. The problem is that the system is based not on a list of places, but on administrative units. The results display explains that searchable places from the home page are confined to a short-list 'of the main towns, villages and localities of Britain which we have kept as simple as possible'.(5) This simplified list, in turn, is derived from the underlying GIS of administrative units (hereafter AUs). Thus, for someone searching for Tarbert, Harris, the closest place findable from the home page search is in fact Stornoway, Lewis. This will seem a rather counterintuitive and roundabout approach for those users more familiar with searching in various online street map programmes. However, that said, for more populous regions, smaller places are findable in this simplified search: Bradfield, Essex, or Castle Rising, Norfolk, by way of example.

Conceptually, the GBH-GIS is based on an 'administrative unit ontology' which is restricted by its own definition: the system is a virtual construction of the geographical entities which are legally defined as units of governmental administration, both current and historical. The major source used for these units in England at least is Youngs' *Guide to the Local Administrative Units of England* (Royal Historical Society, 1979 and 1991). A great advantage of working with AUs is that it allows relevant governmental and social data and statistics to be linked to the geographical entity in question, such as a county or parish. A great disadvantage is the cumbersome place search mechanism just described. Moreover, there is no ability to go beyond the scaffolding of governmental AUs, to look at less-clearly defined entities, for instance regions like the Midlands, the Home Counties, the West Country, or Scotland's Central Belt. What is more, there is no real explanation or discussion of what *Vision of Britain* means by 'place', as a type of geographical entity. Places seem to be defined by the AU ontology, but it would be helpful to find comment on how the underlying GIS understands and identifies places (and locations), for instance to compile the simplified short-list just mentioned.(6)

The results display for a failed search offers a clear explanation of alternative options: a search for 'Bermondsey', for instance, will suggest a direct search of the site's gazetteer of AUs, noting the existence of the rural deanery of Bermondsey (within the archdeaconry of Southwark), and the sanitary district of the same name (within London). It will also suggest a direct search of the digitised text of three nineteenth-century descriptive gazetteers. These are Wilson's *Imperial Gazetteer of England & Wales* (1872), Bartholomew's *Gazetteer of the British Isles* (1887), and Groome's *The Ordnance Gazetteer of Scotland* (1885). I believe the first two of these are digitised by *Vision of Britain* for the first time, but the latter – still a standard reference work – has previously been digitised by the online Gazetteer for Scotland (<http://www.geo.ed.ac.uk/scotgaz> [7]). These historical gazetteers are a major source of information on the

site, yet they seem to be an add-on feature; not part of the AU ontology, but linked to it. Their inclusion is indicative of the designers' need to provide some basis for detailed place-name searching. Not many visitors will automatically think to look for the name of an urban sanitary district. Yet even the links between these historical gazetteers and the AU ontology can prove cumbersome: Whereas a search for 'Cardiff' (in head words, anywhere in Britain), returns two hits both linked to the corresponding AU of Glamorgan, the term 'Wetheral' returns a further pair of hits, but only one correctly puts this place in the AU of the pre-1889 ancient county of Cumberland, the other puts it in Northumberland. It seems that this confusion is due to the limitations of the textual mark-up which has misinterpreted part of the entry in Wilson's *Imperial Gazetteer*.

A final point on places in *Vision of Britain*: the website hardly confines its AU ontology to Great Britain. Rather, a search for 'Tarbert' in the historical gazetteers returns four hits, one of which is for Tarbert in Kerry, Ireland. Pursuing the AU hierarchy into which this place is tied through the unit history link, reveals not only that some statistical material (more on this below) is incorporated for Ireland before 1922, but that Ireland and the UK are both AUs within 'The Isles', which is within 'Europe', which in turn is within 'The World' – the system's ultimate root unit. Europe is then broken down into 9 continental organisation AUs, 6 sub-continent AUs (including The Isles), and 107 state-level AUs. All of these break down further: The future ambitions and possibilities for the GBH-GIS Project seem global in scale. Yet all this, and its rationale, is not made plain to the visitor. It would seem that this is indicative of a more fundamental haziness of purpose and coherence in the scope of this resource, a point to which I shall return.

*Vision of Britain* presents plenty of historical maps. These are furnished in two ways. Oddly prominent on the home page is a link to another website produced by the GBH-GIS Project, entitled the 'Land of Britain'. That external site assembles land use surveys from the 1930s to the 1990s and presents layer-able maps of these surveys along with other maps for the Brighton and Hove area as an exemplar. This is certainly an interesting enterprise, but it remains an unfinished aside, 'just a demonstration of what could be done' (7), and it is not clear why this link should be given such prominence on the main site. The other (and more significant) way is the historical mapping section of *Vision of Britain* itself. This offers a selection of map series supplied by repositories like the British Library, the National Library of Scotland, and the Environment Agency. Included are three land use surveys (from the 1920s to the 1940s), thirteen British boundary series (Ordnance Survey and Boundary Commission Reports from 1803 to 1949), and ten topographical series (certain Ordnance Survey series from 1805 to 1948, and British War Office Maps covering Europe from the 1940s and 1950s). Again, a rationale for the European maps is not given, but nevertheless the cartographical feast is wonderful. Individual sheets covering particular areas can be visually selected from a simple 'index' map (provided by *OpenStreetMap*), and then opened in a new viewing window which is very useable. All maps are 'slippy', that is, with the ability to pan just by grabbing and sliding the image. It is all too easy to get distracted for hours on end simply browsing this visual collection.

Census reports, dating from 1801 to 1961, are another main feature of the site. These are not the census data for individuals, but the information published in the aggregate reports. The full text of selected abstracts, preliminary reports, and general reports for England and Wales is made available and searchable. Helpfully, the text of *The Guide to Census Reports: Great Britain 1801–1966* (1977) is also presented. The real substance of this part of the site is in the selected tables supplying data from these reports, typically covering population and households. This is a potentially valuable single-stop collection of empirical data for a social science researcher. Unfortunately, it is not very clear exactly what is actually available. Tables in a number of reports appear to be listed, but without any data supplied (for example, 'Population Tables I' from the 1851 Census (8), Table 3 'Population, Acreage, Private Families and Dwellings' for Berkshire from the 1921 Census (9), or any data at all for the 1939 national registration reports (10), to name just a few lacunae). Yet a user may learn from filled tables that there were 47,341 private households in Flintshire in 1961 (11), or read the report on the occupations of the blind in 1891.(12)

*Vision of Britain* uses the census data as a major component of its statistical Atlas. It is these statistics, pinned to different AUs which are really the original core of the GBH-GIS, so the authors explain.(13) Statistical information across ten themes is projected on to a standard map of Britain, which colour-codes (but does not label) the different AUs for which data is reported. Other sources here include measures like

surveys of schools, and censuses of religion and agriculture, but it is not clear exactly from where the data for particular statistical maps are drawn, a major limitation for academic and other research users. The information is very much about historical human geography: Themes cover population, industry, social structure, language and learning, agriculture and land use, births and deaths, employment and poverty, housing, roots and religion, and political life. One can call up a projection for different years of sheep per acre by Scottish county (14), or of male unemployment.(15) It is here that comparisons can be drawn with *Vision of Britain's* American cousin, *Social Explorer* (16), a demographics website presenting aggregated U.S. census data through online map projections. The free edition of *Social Explorer* compares favourably in terms of its usability (for example, its labelled base map does not change with each projection, unlike the maps in *Vision of Britain* which may frequently include blank areas in the map where no data exist, which tends to distort). In its favour, *Vision of Britain* provides analytical discussions of varying length (never more than a few paragraphs) appended to most statistical maps, which offer helpful context and explanation.

Perhaps the most interesting aspect of the statistical Atlas is the inclusion of election results and voter turnout data under the 'political life' theme. This is a major new addition to the re-launched site. These data are for all general elections and by-elections to the UK Parliament since 1833. A brief synopsis of each election and pie charts for votes and seats are provided. Elections data is linked to particular AUs representing parliamentary constituencies, and can be approached in two ways: either from the main elections page for a national overview (projecting voting patterns just as on the statistical maps), or through the historical statistics linked to a particular constituency. The first way will clearly be a useful tool for teaching. There are pie charts of aggregate data for votes and seats won by each party, and the map projections are a ready means of illustrating voting patterns across Great Britain as, for example, with the general elections of 1979, 1983, 1987 and 1992, when Scotland's Central Belt maintained a strong Labour vote, by contrast with fluctuating Tory success elsewhere in Scotland. Equally, a strongly Liberal vote in eastern Scotland throughout the 19th century is readily visualised. In the second approach to this data, charts can be displayed for a given constituency, for instance to show the percentage of the vote going to nationalist parties in Aberdeen North since the 1940s, compared with the rest of Great Britain. These charts are clear and usable, with the major exception that the colour contrast between the trend-lines is a very subtle difference between two shades of red. Two distinct primary colours would make things much more readable. Of more significant concern is that, for the 19th-century elections data, it is unclear whether Ireland is included in the aggregate results.

Quite unrelated to the rest of the website's largely statistical focus is a significant section on travel writing. The text of publications by 16 well-known travellers (including William Camden, Celia Fiennes, Charles Wesley, and William Cobbett), accompanied by a selection of six 19th-century 'artisans and agitators' (Feargus O'Connor the best known among them) is presented. It is a collection that continues to grow – four of the former writers were added only in December 2009. The journals of James Boswell and Samuel Johnson are indications of the wide geographical coverage achieved here but, in terms of temporal depth, the only medieval traveller to be included is Gerald of Wales. In total, thirteen of these travellers date from the eighteenth century or earlier, and so a question may be asked about the extent to which this content really suits the heading 'a vision of Britain between 1801 and 2001'. What has been done with these travel accounts is no small piece of work. They have been marked-up so that place-names appearing in the text are (in most cases) linked to existing places or AUs within the system. A small map beside the text highlights unlabelled places that are mentioned (a click takes you to the occurrence in the text). A click on the place-name takes you to the relevant page for the place or AU elsewhere in *Vision of Britain*. Certainly this makes reading travel accounts a potentially rich visual experience, and a distracting one, and it demonstrates what the site is capable of. One wonders about the possibility in future incarnations for a facility by which users might import their own text, and have this automatically marked-up and linked into the system?

The final content link from the home page is to a section called 'learning resources', which is a collection of four animated tutorials to introduce the topics of travel writing, land use surveys, franchise reform and changing constituencies, and a history of census taking. These are helpful overviews of aspects of the site's contents, directed at a non-specialist audience.

Whom the designers intend as their audience is a good question, and this speaks to wider issues. The site's FAQ states that it is 'intended mainly for a very wide non-academic audience, whose immediate interest is mostly in local history'.<sup>(17)</sup> I suspect that *Vision of Britain* has a much more diverse pool of potential users than this, and by conceiving its audience in this way it is limiting its own utility to others. Dr Southall claims an astonishing unique user hit-rate of between 70 and 80,000 per month.<sup>(18)</sup> If all these are local history enthusiasts, would I be remiss to speculate that they will be most interested in the historical maps, and leave the statistical and census data aside for social science, geography and history researchers, or policy makers? Perhaps it is political pundits, or the parties themselves, who are making most use of the electoral data, and I have already alluded to the immediate potential of this material for teaching. There is a very wide potential audience indeed, but it is perhaps also one with more diverse expectations and interests than what the designers have so far envisioned.

A related point, important to bear in mind, is that this site is entirely free-access. The original site was funded by a major grant from the National Lottery's Big Lottery Fund, and the re-launched *Vision of Britain* has been funded by the Joint Information Systems Committee (JISC), with enough support to keep it running until 2014. These are huge awards, the National Lottery alone supplying three-quarters of a million pounds.<sup>(19)</sup> Income is also generated by a modest amount of advertising, most visibly in the form of an Ads by Google banner at the bottom of the screen, usually featuring two or three discreet links to sites of related interest, including an ad taken out by the Liberal Democrats in the run-up to the next general election.<sup>(20)</sup> I would not rush to condemn this mild commercial intrusion if it means that free access for a wide audience can be maintained. Even *Social Explorer* in the US exists in two-tiers, with both a free and a subscription edition. It is paradoxical that, while online databases of all types have potentially democratised scholarship, or at least access to information and source materials, they have also tended to be so expensive that only wealthy academic institutions can afford subscription fees. There is a balance to be struck here and I think *Vision of Britain* is proceeding creditably.

With a huge audience and real commercial capacity, one wonders what the UK higher education funding bodies will make of a 'research output' like *Vision of Britain* in the next national research census upon which state funding for university research depends. This seems to tick many boxes of the proposed 'Impact' category which seeks to reward scholarship that shows a wide relevance beyond academia to economy, society, public policy and culture, and other areas.<sup>(21)</sup> Perhaps more to the point, how would *Vision of Britain* stand up to actual scrutiny by research assessment panels? If this is not a clear example of the proposed category of 'Impact', then what is? Yet even so, the problems with potential assessment criteria for this category are clear: beyond total user numbers alone, how can the way this resource is used be demonstrated? To what extent is the 'Impact' of *Vision of Britain* spontaneous, or actually intended by the design team? It remains to be seen whether this website will bring its host institution its virtual weight in gold, or whether this is the sort of 'output' that university research committees across the land will be keen to foster. William Rede was, after all, not just an isolated medieval scholar: He was a bishop, a doctor of theology, a pioneering astronomer, a parliamentarian, and a creditor to the king.<sup>(22)</sup>

By way of drawing this together, I am left uncertain of whether *Vision of Britain* is a scholarly digital source edition (and a collection of divergent types of sources at that), or a virtual reference library built upon its own catalogue. This is an impressive array of material, for the greater part attractively presented, and there is analysis, although it is scattered. Undeniably *Vision of Britain* is a stunning illustration of the major technical achievement of the GBH-GIS Project team in linking a number of visual and textual sources into an overarching database, and presenting it all in an accessible way. Yet, this user is left with uncertainty about what pulls all the diverse information here together. Election results, travel writing, land use maps, demographical statistics, and more; despite the claim that this is 'a national resource for local history' <sup>(23)</sup>,

there is a lack of overall coherence and purpose – I think the hidden hierarchy of European states and sub-units highlights the grounds for this more fundamental hesitation most clearly. Yet as I said above, this is not a review of a book, and a book might more fairly be subjected to such criticisms about coherence. Perhaps the real limitation is the extent to which users are allowed to define their own data selections, rather than pull from an off-the-shelf range. If the statistics and maps supplied by the site are to be used in a really meaningful way by academic researchers, students, or policy makers, for example, then there should be scope to manipulate the AUs from which particular data are derived. In this way, custom regions could be defined by users to conduct their own analyses. If a web-based resource like *Vision of Britain*'s strength is in its ability to escape the constraints of coherence, then it will really come into its own is when it allows its users to define their own terms of coherence, and make of it what they will. It is in such unintended and difficult-to-measure impacts where the value of scholarship is always found.

## Notes

1. Nick Millea, 'Britain's first road map', *Oxford Today*, 18 (2006) <<http://www.oxfordtoday.ox.ac.uk/2005-06/v18n2/08.shtml> [8]> [accessed 10 March 2010].[Back to \(1\)](#)
2. See *Social Science History*, 24, 3 (2000), special issue on 'Historical GIS: the Spatial Turn in Social Science History'.[Back to \(2\)](#)
3. See also I. N. Gregory, C. Bennett, V. L. Gilham and H. R. Southall, 'The Great Britain Historical GIS Project: from maps to changing human geography', *The Cartographic Journal*, 39, 1 (2002), 37–49; H. R. Southall, 'A vision of Britain through time: making sense of 200 years of census reports', *Local Population Studies*, 76 (2006), 76–84.[Back to \(3\)](#)
4. Media Resources area <<http://www.gbhgis.org> [9]> [accessed 10 March 2010].[Back to \(4\)](#)
5. <[http://vision.port.ac.uk/place/place\\_not\\_found\\_page.jsp?st=tarbert&from=match\\_page](http://vision.port.ac.uk/place/place_not_found_page.jsp?st=tarbert&from=match_page) [10]> [accessed 10 March 2010].[Back to \(5\)](#)
6. For example, see the off-site comment by Dr Southall about these matters at: <<https://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0909&L=GBHGIS&T=0&F=&S=&P=53> [11]> [accessed 10 March 2010].[Back to \(6\)](#)
7. <[http://riga.iso.port.ac.uk/django\\_projects/home](http://riga.iso.port.ac.uk/django_projects/home) [12]> [accessed 10 March 2010].[Back to \(7\)](#)
8. <[http://visionofbritain.org.uk/census/pub\\_page.jsp?pub\\_id=GB1851POP2\\_1&show=DB](http://visionofbritain.org.uk/census/pub_page.jsp?pub_id=GB1851POP2_1&show=DB) [13]> [accessed 10 March 2010].[Back to \(8\)](#)
9. <[http://visionofbritain.org.uk/census/pub\\_page.jsp?pub\\_id=EW1921COU\\_BERK&show=DB](http://visionofbritain.org.uk/census/pub_page.jsp?pub_id=EW1921COU_BERK&show=DB) [14]> [accessed 10 March 2010].[Back to \(9\)](#)
10. <[http://www.visionofbritain.org.uk/census/census\\_page.jsp?yr=1939&show=DB](http://www.visionofbritain.org.uk/census/census_page.jsp?yr=1939&show=DB) [15]> [accessed 10 March 2010].[Back to \(10\)](#)
11. <[http://www.visionofbritain.org.uk/census/table\\_page.jsp?tab\\_id=EW1961COU\\_M3&u\\_id=10001195&show=I](http://www.visionofbritain.org.uk/census/table_page.jsp?tab_id=EW1961COU_M3&u_id=10001195&show=I) [16]> [accessed 10 March 2010].[Back to \(11\)](#)
12. <[http://www.visionofbritain.org.uk/text/chap\\_page.jsp?t\\_id=SRC\\_P&c\\_id=9&cpub\\_id=EW1891GEN&show=I](http://www.visionofbritain.org.uk/text/chap_page.jsp?t_id=SRC_P&c_id=9&cpub_id=EW1891GEN&show=I) [17]> [accessed 10 March 2010].[Back to \(12\)](#)
13. <[http://visionofbritain.org.uk/footer/doc\\_text\\_for\\_title.jsp?topic=sources&seq=3](http://visionofbritain.org.uk/footer/doc_text_for_title.jsp?topic=sources&seq=3) [18]> [accessed 10 March 2010].[Back to \(13\)](#)
14. <[http://www.visionofbritain.org.uk/atlas/nat\\_data\\_theme\\_page.jsp?data\\_theme=T\\_LAND](http://www.visionofbritain.org.uk/atlas/nat_data_theme_page.jsp?data_theme=T_LAND) [19]> [accessed 10 March 2010].[Back to \(14\)](#)
15. <[http://www.visionofbritain.org.uk/atlas/nat\\_data\\_theme\\_page.jsp?data\\_theme=T\\_WK](http://www.visionofbritain.org.uk/atlas/nat_data_theme_page.jsp?data_theme=T_WK) [20]> [accessed 10 March 2010].[Back to \(15\)](#)
16. <<http://www.sociaexplorer.com> [21]> [accessed 10 March 2010].[Back to \(16\)](#)
17. <[http://www.visionofbritain.org.uk/footer/doc\\_text\\_for\\_title.jsp?topic=faq\\_system&seq=5](http://www.visionofbritain.org.uk/footer/doc_text_for_title.jsp?topic=faq_system&seq=5) [21]> [accessed 10 March 2010].[Back to \(17\)](#)
18. Personal conversation November 2009.[Back to \(18\)](#)
19. About the Project > History <<http://www.gbhgis.org> [9]> [accessed 10 March 2010].[Back to \(19\)](#)

20. For comment see <[http://www.visionofbritain.org.uk/footer/doc\\_text\\_for\\_title.jsp?topic=news&seq=6](http://www.visionofbritain.org.uk/footer/doc_text_for_title.jsp?topic=news&seq=6) [22]> [accessed 10 March 2010].[Back to \(20\)](#)
21. UK higher education funding bodies, *The Research Excellence Framework: A brief guide to the proposals* (October 2009), pp. 2, 4 <<http://www.hefce.ac.uk/research/ref/resources/REFguide.pdf> [23]> [accessed 10 March 2010].[Back to \(21\)](#)
22. J. D. North, 'Rede, William (c.1315–1385)', Oxford Dictionary of National Biography (Oxford, 2004); online edn., May 2006, <<http://www.oxforddnb.com/view/article/23248> [24]> [accessed 10 March 2010].[Back to \(22\)](#)
23. <<http://www.visionofbritain.org.uk/learning/elearning.jsp?module=franchise> [25]> [accessed 10 March 2010].[Back to \(23\)](#)

## Other reviews:

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**Source URL:** <http://www.history.ac.uk/reviews/review/934#comment-0>

## Links

[1] <http://www.history.ac.uk/reviews/item/4853>

[2] <http://digitalhumanities.org/>

[3] <http://www.arts-humanities.net/>

[4] <http://www.hgis.org.uk/>

[5] <http://www.gbhgis.org/>

[6] <http://www.visionofbritain.org.uk/>

[7] <http://www.geo.ed.ac.uk/scotgaz>

[8] <http://www.oxfordtoday.ox.ac.uk/2005-06/v18n2/08.shtml>

[9] <http://www.gbhgis.org>

[10] [http://vision.port.ac.uk/place/place\\_not\\_found\\_page.jsp?st=tarbert&from=match\\_page](http://vision.port.ac.uk/place/place_not_found_page.jsp?st=tarbert&from=match_page)

[11] <https://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=ind0909&L=GBHGIS&T=0&F=&S=&P=53>

[12] [http://riga.iso.port.ac.uk/django\\_projects/home](http://riga.iso.port.ac.uk/django_projects/home)

[13] [http://visionofbritain.org.uk/census/pub\\_page.jsp?pub\\_id=GB1851POP2\\_1&show=DB](http://visionofbritain.org.uk/census/pub_page.jsp?pub_id=GB1851POP2_1&show=DB)

[14] [http://visionofbritain.org.uk/census/pub\\_page.jsp?pub\\_id=EW1921COU\\_BERK&show=DB](http://visionofbritain.org.uk/census/pub_page.jsp?pub_id=EW1921COU_BERK&show=DB)

[15] [http://www.visionofbritain.org.uk/census/census\\_page.jsp?yr=1939&show=DB](http://www.visionofbritain.org.uk/census/census_page.jsp?yr=1939&show=DB)

[16]

[http://www.visionofbritain.org.uk/census/table\\_page.jsp?tab\\_id=EW1961COU\\_M3&u\\_id=10001195&show](http://www.visionofbritain.org.uk/census/table_page.jsp?tab_id=EW1961COU_M3&u_id=10001195&show)

[17]

[http://www.visionofbritain.org.uk/text/chap\\_page.jsp?t\\_id=SRC\\_P&c\\_id=9&cpub\\_id=EW1891GEN&show](http://www.visionofbritain.org.uk/text/chap_page.jsp?t_id=SRC_P&c_id=9&cpub_id=EW1891GEN&show)

[18] [http://visionofbritain.org.uk/footer/doc\\_text\\_for\\_title.jsp?topic=sources&seq=3](http://visionofbritain.org.uk/footer/doc_text_for_title.jsp?topic=sources&seq=3)

[19] [http://www.visionofbritain.org.uk/atlas/nat\\_data\\_theme\\_page.jsp?data\\_theme=T\\_LAND](http://www.visionofbritain.org.uk/atlas/nat_data_theme_page.jsp?data_theme=T_LAND)

[20] [http://www.visionofbritain.org.uk/atlas/nat\\_data\\_theme\\_page.jsp?data\\_theme=T\\_WK](http://www.visionofbritain.org.uk/atlas/nat_data_theme_page.jsp?data_theme=T_WK)

[21] [http://www.visionofbritain.org.uk/footer/doc\\_text\\_for\\_title.jsp?topic=faq\\_system&seq=5](http://www.visionofbritain.org.uk/footer/doc_text_for_title.jsp?topic=faq_system&seq=5)

[22] [http://www.visionofbritain.org.uk/footer/doc\\_text\\_for\\_title.jsp?topic=news&seq=6](http://www.visionofbritain.org.uk/footer/doc_text_for_title.jsp?topic=news&seq=6)

[23] <http://www.hefce.ac.uk/research/ref/resources/REFguide.pdf>

[24] <http://www.oxforddnb.com/view/article/23248>

[25] <http://www.visionofbritain.org.uk/learning/elearning.jsp?module=franchise>

[26] <http://www.history.ac.uk/reviews>