Recording Past and Present Land Use in Birmingham – the Historic Landscape Characterisation (HLC)

Part 1 – Project Overview

Adrian Axinte, HLC Officer, Birmingham City Council August 2015

Historic England



HLC Method Overview

"HLC looks beyond individual buildings, ornamental landscapes or archaeological sites, to establish a generalised, but comprehensive, historic view of the whole landscape." (Graham Fairclough)

In HLC, the present-day landscape is 'cut up' into areas (polygons) – using digital mapping (GIS) software (MapInfo in Birmingham's case) – each polygon being based around a predominant past and present land use type, as gleaned from modern and historic maps and aerial photos.

Once drawn, each polygon is then 'characterised', using HBSMR (Historic Buildings, Sites & Monuments Record) software, and becomes an HLC record – its land use changes are dated and described using a set of broad and 'individual' land use types; specific attributes, sources and linked monuments are also recorded.

• HLC records are stored in the HBSMR database alongside the rest of the Historic Environment Record (HER) and cross-referenced against it.

HLC Method Overview (cont'd)

Once the characterisation of an entire area has been completed, the HLC records can also be 'aggregated' into character areas, which are much larger in size and broader in scope – i.e. their predominant land use character and evolution.

The boundaries of the character areas are determined by their historic landscape character, and therefore they may not follow existing historic, geographical or administrative boundaries e.g. parishes, wards, estates.

Caveat: "It is important, however, to regard HLC as an interpretation of landscape, not as hard data." (Graham Fairclough)

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HLC as the 'Broader Picture'

 Like a stained glass window (or a mosaic), the output of a HLC project is best analysed and 'appreciated' from a certain distance.

 Any spatial patterns and historical evolutions observed in an area's HLC types, become obvious – and comparisons with other investigated areas, become possible.

While one can 'zoom in' on an individual or a small group of HLC records (covering e.g. a neighbourhood) and examine its recorded data alone, an HLC is not meant to replace an extensive urban survey or any other such detailed investigation of a smaller area, but rather complement it.

Project Overview

The main project phase of the Birmingham HLC was carried out between Nov 2011 and Dec 2014, when the database was completed and the final report written. By Sept 2015, a descriptive brochure and a mapping website about the Birmingham HLC have also been produced.

A useful 'by-product' of this project was the creation of a database containing almost all the relevant historic maps and aerial photos of the Birmingham area; many of them are now viewable on the public HLC mapping webpages.

The Birmingham HLC was a collaborative project between Historic England (previously English Heritage) who provided financial support as part of its countrywide characterisation programme started in the early 1990s, and Birmingham City Council (BCC) who provided extensive technical, management and administrative support, and in particular its Planning and Regeneration Department where the project was based.

Area Covered and Timeline

The 'polygonisation' work started in Jan 2012 with Yardley and Bordesley pilot areas; by Dec 2012 it extended northwards to include the future HS2 (High Speed 2) railway route corridor.

The work then continued clockwise, until the entire Birmingham area was characterised by Jun 2014, including the North-Eastern fields ('re-worked' by Aug 2014).

 The HLC records were then combined into much larger character areas by Nov 2014 and the final report written by Dec 2014.



HLC Records and Character Areas

The Birmingham HLC covers a total area of 26,798 ha (66,219 ac), which includes the farmland in northern and eastern Sutton Coldfield originally characterised as part of the Warwickshire HLC.

Its database contains 6,974 HLC records and also 111 character areas of significantly larger size and broader land use character, created from combining HLC records as part of a two-tier landscape characterisation process.

The average HLC record size is 3.8 ha (9.5 acres), but 18% of them are smaller than 1 ha (2.47 ac). Aiming to describe as accurately as possible any land use 'realities' encountered 'on the ground', meant that the size of HLC record was guided to a significant extent by what the maps were showing, or what could be inferred from them.

• On average, each character area is made up from 63 HLC records and its size is 241 ha (595 ac).

Polygons and Records – and their Dating

 'Multi-polygon' records were also used where appropriate, each containing two or more polygons with (near-)identical land use 'histories' and located nearby (but not sharing a common boundary).

This was done in order to avoid excessive record fragmentation while preserving the accuracy of land use characterisation, and resulted in the Birmingham HLC containing c. 2,000 more polygons than actual records, which represents an average of 1.3 polygons per record.

A 'period of origin' – represented by a 'from...to' year range – was used to date the land use changes of every individual record or character area. This range can vary from an exact year (or pair of years) up to dates several decades or even centuries apart, as the accuracy of dating varied significantly, depending on the sources available.

Land Use Types and Sub-Types

38 'broad' land use types and 432 'individual' types (sub-types) were used to describe the HLC records, plus an additional 18 broad types and 124 sub-types for the character areas.

An average of 2.3 past land use types were captured for each HLC record, and 2.1 for the character areas (in addition to their current type).

The set of land use types and sub-types 'inherited' originally from the Black Country HLC, was significantly enlarged by dividing and/or (re-) combining them. E.g. half of the 'broad' types used by the Birmingham HLC to describe its records are 'split' types, while more than a quarter are 'mixed' types, created from combining two (or more) existing types.

Using a larger than average number of HLC types and sub-types, including 'split' and 'mixed' ones, was deemed necessary in order to ensure that any land use realities – especially past ones – encountered 'on the ground' were described as accurately as possible.

'Broad' Land Use Types Used

Residential - Other/Non-Estate/Mixed Housing
Residential - Detached, Semi-Detached Houses
Residential - Flats, Terraced Houses
Residential - Mixed Detached, Semis, Terraces, Flats
Farms
Commercial (incl. Offices, Retail, Wholesale)
Industrial - Metal Working (incl. Related Manufacturing)
Industrial - Engineering (incl. Vehicle Manufacturing)
Industrial - Other/Mixed/Unknown Type
Enclosed Fields
Horticultural
Open Commons, Waste, Strip Fields
Outdoor Recreation/Leisure/Sport
Indoor Entertainment/Leisure/Culture/Sport
Educational
Medical/Social Care/Internment
Public/Social Institutions/Services/Utilities
Vacant/(Semi-)Derelict/Disused Land/Buildings
Roads (incl. Road Transport)

Railways (incl. Rail Transport)
Canals, Artificial Pools/Ponds (incl. Canal Transport)
Natural Inland Waters
Religious
Woodland
Military
Extractive
Residential and Other/Mixed/Unknown Type Industry
Residential and Metal Working (incl. Related Manufacturing)
Residential and Engineering (incl. Vehicle Manufacturing)
Residential and Commercial
Residential and Social/Public/Services/Religious
Residential and Enclosed/Open Land (incl. Allotments)
Commercial/Industrial/Social and Enclosed Fields
Residential/Other and Outdoor Recreation
Industrial and Commercial
Residential/Other and Vacant/(Semi-)Derelict/Disused Land
Transport and Industrial/Commercial/Other
Enclosed/Open Fields and Outdoor Recreation

'Individual' Land Use Sub-Types Used (Examples) Residential Industrial

Historic core (inc. shops, workshops, houses, amenities) Small nucleated settlement (hamlet) **Detached houses/bungalows Detached houses & semis Detached houses & terraces Detached houses & maisonettes** Semi-detached houses Semis & short terraces Semis & flats/maisonettes **Terraces (short rows) Terraces** (tunnel-back) Terraces (street-facing/courtyard) Terraces (short rows) & low-rise flats Flats/maisonettes (low-rise) Flats (high-rise) Flats (high- & low-rise) Prefabricated houses **Cottages (singular/terrace)** Country/manor house, suburban villa Squatter settlement Farm (buildings, farmyard, paddocks)

Business/trading/industrial estate Industrial (mixed/generic/unspecified 'works/warehouse') Metal works (mixed/generic/unknown type) Engineering (mixed/generic/unknown type) **Rolling mill, sheet metal works** Brass/bronze/nickel works, foundry, forge Iron works, foundry, forge Car/bus/truck manufacturing/repair Automotive/cycle components/accessories Railway engine/carriage manufacturing/repair Aviation/aerospace (inc. parts/components) **Plastics** Haulage, logistics, distribution centre Paper/cardboard manufacturing/recycling Metal recycling site, scrapyard **Brick works** Chemicals (inc. paints, glue, metal coatings)

Beer/vinegar brewery, maltings, cider maker

Timber yard, saw mill, joinery works

Rubber/tyre factory

Water mill (inc. millpond)

Using Birmingham HLC Data

Planning, regeneration and development: The eastern Birmingham sector characterised first, included on purpose the projected route of the HS2 (High Speed Two) railway through the city, as well as the area of the Bordesley Park Area Action Plan (AAP): its Preferred Options Report explicitly describes the historic landscape character of Bordesley Park.

Historic/landscape research: Describing and mapping the land uses of an entire area is a useful investigation tool in its own right. Customised Birmingham HLC data was supplied in 2015 to a Historic England national project researching the history of the development of residential suburbs. Other examples can be found in the Birmingham HLC mapping webpages, the printed brochure and in this presentation.

Educational: As HLC data is very 'visualisation-friendly', it represents an engaging and accessible way to promote wider interest in, and understanding of, the area's past, and also as a resource supporting the statutory curricular requirement to teach local history in schools.

Disseminating Birmingham HLC Data

The forthcoming Birmingham HLC webpages will attempt to bring this rich data about the landscape history of our city to within everyone's reach, in a format both flexible and user friendly. They will include:

A 'generic' HLC webpage (on the main Birmingham City Council site), containing a short description of the Birmingham HLC project, links to the HLC mapping webpages and several downloadable attachments, such as the final project report and a couple of presentations.

Three HLC mapping webpages. The first will contain a large number of modern and historic maps, aerial photos and map layers of the area, viewable alongside HLC and HER data, while the second and third will aim to 'tell the story' of Birmingham's landscape through a series of 'thematic timeslice' maps, created from broad land use type data for the HLC records and character areas. Site users will be able to turn each individual map layer and/or layer group on or off, as desired.