Assessment Report and Updated Project Design for HER21:6003 Historic Buildings of Worcestershire

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As a Registered Archaeological Organisation of the Institute of Field Archaeologists we deliver a quality service to our clients, users and partners. We have a commitment to providing clients with projects to a high standard and which are on time and within budget. Through information and education we provide the present and future communities of Worcestershire with a well managed archaeological heritage. To the Service's partners we will initiate ideas and seek their implementation in areas such as research.

Assessment Report and Updated Project Design for HER21:6003 Historic Buildings of Worcestershire

Emma Hancox

1 Background

> *"English Heritage is committed to Heritage Protection Reform (HPR). A critical element of this reform is ensuring that useful, appropriate and accurate information is readily available to those making planning decisions about the character and components of the historic environment.*
>
> *Government recognises the central part which Historic Environment Records (HERs) play in providing access to this vital knowledge. English Heritage recognises its own responsibility in assisting local authorities to develop HERs which comply with HPR approaches and which enhance the evidence base for effective planning.*
>
> *English Heritage in partnership with the Institute of Historic Building Conservation and the Association of Local Government Archaeological Officers is developing a strategy for HPR compliant HERs. It is envisaged that implementation of this strategy will take place between 2010 and 2015, subject to funding being available."* English Heritage 2010.

As part of the strategy for HPR compliant HERs, English Heritage funded Worcestershire County Council to develop a methodology for recording historic buildings into HERs rapidly and in a consistent manner. The HER21 Historic Buildings of Worcestershire (HBW) project is managed by Worcestershire County Council's Historic Environment and Archaeology Service (WHEAS) in partnership with historic environment professionals (Archaeological Officers and Conservation Officers) in Bromsgrove District Council, Redditch Borough Council, Wyre Forest District Council, Wychavon District Council and Worcester City Council. The project follows the format described in *Management of Research Projects in the Historic Environment: the MoRPHE project manager's guide* (EH 2006).

1.1 Reasons for the project

Our understanding of Worcestershire's historic buildings is neither consistent nor comprehensive. There are around 6500 Listed Buildings (LBs) in the County (6348 separate Listings, but some List descriptions relate to more than one building). These buildings are recognised as being of national importance and are given statutory protection, but there are probably around 40,000 buildings that date to the 19th century or earlier. It is these unlisted and unprotected buildings that define local distinctiveness. They are an integral part of the landscape, define the character of settlements and create a sense of place for the people living in them.

Records of some of these historic buildings are held by Worcestershire's Historic Environment Records (HERs) in a Geographical Information System (GIS). Currently Worcestershire has two HERs, one for Worcester City maintained by the City Council and one for the rest of the County, maintained by the County Council (WCC). It is proposed that the two HERs will share the same software platform shortly and further references to 'the HER' in this document should be taken to refer to both City and County.

The HER contains a GIS theme called 'Historic and Listed Buildings'. This theme contains buildings in Worcestershire that are deemed to be of local, regional or national historic importance, both Listed and unlisted. An 'historic' building within the HER is considered to be any building that appears on the 1st Edition Ordnance Survey (OS) map that still survives today. Later buildings are also included if they are of significant interest or unique, such as Romsley Sanatorium (1911-13), or if they characterise a particular historical event that affected the landscape of Worcestershire; for example, World War II defences.

The 'Historic and Listed Buildings' theme can, at best, be described as patchy. Some 10,000 buildings have been recorded in an *ad hoc* manner over the past 30 years, some with detailed information, but most with very little. It is the aim of this project to improve this dataset and provide a comprehensive, consistent record of Worcestershire's historic built environment.

This HER21 Project carried out a comprehensive survey of all historic buildings within seven parishes in Worcestershire. A detailed updated methodology is included in Section 6.

2 Review of business case

One of the key strategic aims of the HER is to:

- Provide comprehensive and consistent information on all aspects of the historic environment including the historic built environment.

This strategic aim ties in with the objectives of English Heritage:

- "English Heritage's research into the historic built environment is aimed at raising awareness of the special character of our surroundings, at influencing decisions about the management of historic buildings and landscapes, and at promoting enjoyment of the heritage. ….The pre-requisite for good decision-making about the future of an historic building or place is knowledge. We need to know what it is we are dealing with; the values people attach to it; its vulnerability; and the solutions that have proved successful elsewhere." www.english-heritage.org.uk/server/show/nav.1148

- This business case aligns with English Heritage's SHAPE 41161.110. *"Systems research for Historic Environment Records 4A: Help local authority members and officers develop the skills, knowledge, advice and capacity to make the most of their historic environment".*

The HBW project is intended to address the problem of not having a consistent and comprehensive evidence base and "enable us to know what we are dealing with". Sections 3 and 5 details how this has been achieved.

3 Review of aims and objectives

3.1 The Aims and Objectives

The overall aims of the project were:

- To demonstrate that a rapid but consistent survey of all pre-1900 buildings creates an evidence base that enables historic environment professionals to more effectively manage the resource, and;

- To develop a considered methodology, with associated guidance, for other authorities to use, with examples of how the data can be used to meet the objectives laid out below.

The project has achieved its aims. The considered methodology and the guidance for other authorities have been produced (Sections 5 and 6 and Appendix B). An analysis of how the project has demonstrated *"that a rapid but consistent survey of all pre-1900 buildings creates an evidence base that enables historic environment professionals to more effectively manage the resource"* is laid out below in Section 3.2. This demonstrates how the project's objectives can be achieved in the future.

The objectives were:

- To enhance the scope of archaeological input to strategic planning and Local Development Frameworks (LDFs);

- To provide consistent information on the condition and significance of the County's historic buildings and assess the risks and sensitivities to them;

- To inform the production and enhancement of Local Lists (currently only Wyre Forest District, Redditch Borough Council and Worcester City have a register of locally listed buildings);

- To use the data when producing Conservation Area management plans and appraisals and Environmental Impact Assessments and Statements undertaken in support of planning applications;

- To contribute to the Historic Farmsteads Characterisation Project carried out by WHEAS for English Heritage and other research projects into the historic built environment;

- To improve the quality of information underpinning decision making, thereby reducing the risk both to prospective developers and the archaeological resource, and to help alert prospective developers to archaeological considerations;

- To support the early identification of the potential impacts of proposed developments on the archaeological resource;

- To support the provision of reasonable and informed pre-determination advice (good practice);

- To determine mitigation for individual planning applications, Conservation Area applications and Higher Level Stewardship applications;

- To provide a robust evidence base which can be used with non-archaeological data to enhance strategic approaches to, for example, climate change agendas;

- To inform the Worcestershire Villages Historic Environment Resource Assessment Pilot;

- To provide online guidance on the project methodology for other Historic Environment Records.

- To provide an opportunity to feed into the revisions to the Informing the Future of the Past online guidance (www.ifp-plus.info). Information on creating and enhancing building records in HERs is currently identified as being weak within the existing IFP2 guidance. The project could also serve as a useful case study within the online guidance.

3.2 Examples of how the objectives can be achieved

The data has been used both to flag up historic buildings in planning applications and more broadly at a strategic level. Below are three examples where the Pilot Study data has been used to enhance other projects.

3.2.1 Strategic Stone Study

The Strategic Stone Study (SSS) is an English Heritage funded Country-wide project, in conjunction with the British Geological Survey (BGS), local geologists and historic building specialists. The aim of the project is to identify the most important building stones used, representative buildings and historic quarries.

"*In conservation work, it is vital to obtain stone which matches the original in its mineral composition, density and porosity. If not, the new stone could hasten the decay of the original and is unlikely to weather in the same, therefore looking very different. Local authorities are now encouraged by government to safeguard important sources of building and roofing stone*" (http://www.englishstone.org.uk/documents/SSS.pdf)

Data from the Historic Buildings of Worcester Project and the Worcestershire Historic Environment Record has provided information on important historic buildings and help the SSS target their resources more efficiently. The HER has provided the Herefordshire and Worcestershire Earth Heritage Trust information on numerous unlisted stone buildings, that would otherwise have been missed out of the project. Higher status, Listed buildings are more likely to have been made of imported stone, so a more complete picture of the entire historic building stock should allow the SSS to gain a clear picture of the use of stone across Worcestershire.

3.2.2 The Historic Farmsteads Characterisation

The Historic Farmstead Characterisation Project aims to develop a better understanding of farmstead character, survival and current use. The project does not involve detailed recording of individual buildings, but is trying to improve our understanding of farmstead distribution and scale, the arrangement and function of buildings, the landscape setting of the farmstead and the degree of change between the early 20th century and the present. The project is being funded by English Heritage and the Rural Development Agency (Advantage West Midlands) in partnership with local councils across England.

Farmstead Mapping has been completed throughout the West Midlands Region. In Worcestershire we have approximately 5000 farmsteads, outfarms, small holdings and field barns.

Historic farmsteads and their buildings contribute to local distinctiveness and the varied character of our countryside by reflecting local geology, building traditions and farming practices. The future of the majority of historic farm buildings is increasingly dependent on a new role outside mainstream agricultural use. Consequently the project aims to develop conservation guidance that can be used to advise local planning authorities and conservationists. The mapping also provides a baseline for future research.

The HBW data has allowed the characterisation mapping to be checked against photographic evidence to confirm the decision making process. The data has also allowed farm buildings to be added that could not be recognised from the 2nd Edition Ordnance Survey, for example, the building pictured below (Figure 1). The historic mapping gave no clue that this building was originally agricultural and it was initially missed in the characterisation project. The photograph clearly shows that it is a converted threshing barn.

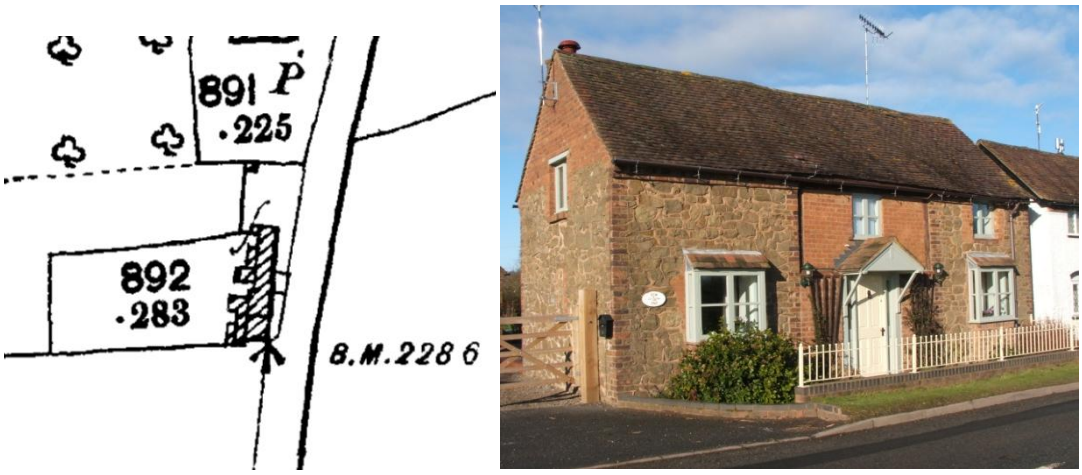

Figure 1. A converted threshing barn shown on the 2nd Edition Ordnance Survey and photographed during the HBW project. © Crown Copyright, WCC 100015914. LM000371

3.2.3 Warmer Worcestershire

The Warmer Worcestershire project, funded with a grant from Improvement and Efficiency West Midlands, is "helping deliver fuel poverty and climate change targets in Worcestershire's Local Area Agreement". (www.warmerworcestershire.com)

From November 2008 to March 2009, an aerial thermal imaging survey of Worcestershire was carried out. The data captured by the survey has been used to produce a thermal map of the entire county, enabling residents and businesses to see the amount of heat lost through the roofs of their properties.

This project is not concerned with historic buildings, but it is possible to use the data to look at the energy efficiency of older properties against newer ones. In those parishes where HBW has been completed, the buildings can be dated with relative accuracy. Comparison of buildings in the pilot study parishes with the thermal imaging data showed that there is no difference, on average, in the heat lost from historic and 20th

century buildings. Certain types of buildings do perform poorly, for example listed buildings lose more heat than unlisted buildings of the same date and type. This data is allowing the Warmer Worcestershire project team to target poorly performing historic buildings with information and advice specifically targeted at those buildings.

3.2.4 Links with other HER21 Projects

Worcester City and Worcestershire County Historic Environment Records (HERs) are in the process of developing a new joint software platform on which the two HERs will sit side by side. This will provide the public with a single point of entry to all the historic environment data for the County. The new HERs will be publicly accessible together with the City Library, the University Library and the County Records' Office, allowing access to a vast range of data in one building. The benefits of working together in this way go beyond just providing a seamless service to the public. The HERs will be able to draw on a greater range of specialist skills and have the ability to cross-reference data.

EH funded Worcester City HER to digitise pre-1948 Building Applications held in the County Record Office and link them to the HER building records (HER21:6004). This project will link well with the Worcestershire County HER21:6003 project. In the future, the modern photographs can provide validation that the Building Applications which received permission were carried out as applied for. Conversely, the Building Applications can provide dates of changes to historic buildings and help with the interpretation of a building's development.

4 Review of risk management

4.1 The Risk Log

The Risk Log compiled at the start of the project is included in Appendix A. Six risks were identified initially and no new risks were added during the project.

Risk 1: Data loss in the field: There was no data loss due to camera failure or corruption during data downloads. This loss would have been mitigated to a maximum of one day by photographs being uploaded at the end of each day.
Risk 2: Rate of photography: The rate of photography was slower than expected due to a higher number of buildings than expected. This did not become a major issue as all four HER assistants had been trained in the project methodology and two of them were drafted in to help complete this stage. This did not affect the budget too much as an extra few days had been built into the PD on the assumption that there would be an issue of one sort or another with Stage 2.
Risk 3: Extended period of sickness absence, HERA: We did not experience an extended period of sickness absence, but this risk was mitigated by training all four HERAs in the project methodology.
Risk 4: Extended period of sickness absence, Project Leader: The project leader did not experience a period of extended sickness absence, but this risk was mitigated by keeping the HER Officer fully briefed on the progress of the project and the location of all documentation should the need arise.
Risk 5: Resignation of the HERA: The HERA did not resign, but this would not have presented an issue as all four HERAs were trained in the project methodology
Risk 6: Resignation of the Project Leader: The Project leader did not resign, but this would not have presented an issue as the HER Officer could have taken over the running of the project.

4.2 Issues

Two issues did occur during the project:

Issue 1: Stages 1 and 2 resulted in more historic buildings than anticipated. This issue did not cause a delay in the project as all four HER Assistants had been trained in the methodology and extra staff could be drafted in to complete Stages 3 and 4. It did not cause an issue with the budget as extra staff time had been budgeted into the project design, as it was expected that there would be at least one issue during the life of the project.
Recommendation: Now that we have complete Stage 1 coverage for the County, it will be much easier to calculate how long Stages 2 - 4 should take. Once Stage 2 has been completed for a parish, then the predicted costs of Stages 3 and 4 should be very accurate.

Issue 2: We had not anticipated requiring the extra input from the Buildings' Archaeologist (BA) to check the Stage 3 reports, which resulted from the higher number of buildings and longer descriptions in some cases than initially anticipated. By the time it became apparent that we would require more of her time, her diary had been filled with commercial projects and time-tabling problems resulted in a one week delay on the completion of Stages 3 and 4. This was followed by the BA having a period of sickness absence, which pushed the project back by another two weeks. This also coincided with the Bromsgrove District Council Conservation Officer (CO) experiencing an extended period of absence from work. The CO returned to work before project completion and was able to check the Stage 3 reports and input into project documentation, but we were delayed in sending the Stage 3 reports to her, which didn't allow her as much time as we'd originally hoped.

We are now more aware of the time needed for the specialist input of the BA and the CO and this would be better planned in the future. It is clear, however, that this could have been a major risk to the project. The HER Assistants were given training before they commenced the project, but this is a specialist skill and they could not always be sure that their descriptions were accurate. None of the HER staff has the necessary skills to check the building reports prepared by the HER Assistants and with the extended absence of the CO and no other BA within WHEAS, we could have encountered a serious delay had the BA had a long period of sickness, resigned from post or not been able to allocate the extra time needed.
Recommendation: Always find a second person with the necessary specialist skills, who can be kept in reserve for such emergencies.

5 Review of progress

This section looks at the progress of each stage, whether it was on schedule, on budget and how it fits in with the aims and objectives of the project. Please refer to Table 1 for the time taken to complete each stage.

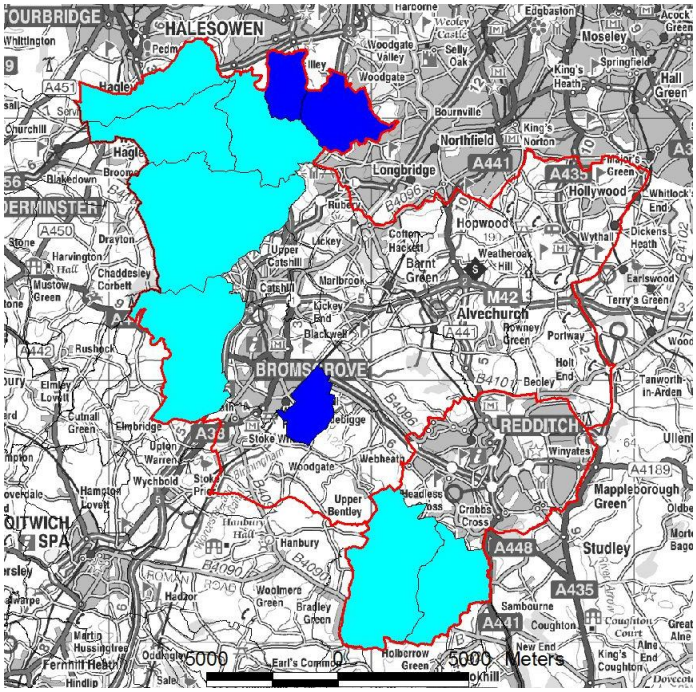

Figure 2. Bromsgrove and Redditch Districts (outlined in red), with the previously completed parishes (in 2008) marked in dark blue. Stages 1 to 4 were covered for the area shown in light blue during the life of this project. Stage 1 was covered for the entire County. © Crown Copyright, WCC 100015914

5.1 Stage 1: GIS mapping

As part of the project English Heritage agreed to fund the Stage 1 GIS mapping for the seven parishes of Astwood Bank, Belbroughton, Clent, Dodford with Grafton, Feckenham, Hagley and Romsley. Worcestershire County Council agreed to complete the Stage 1 mapping for the rest of the County as match funding.

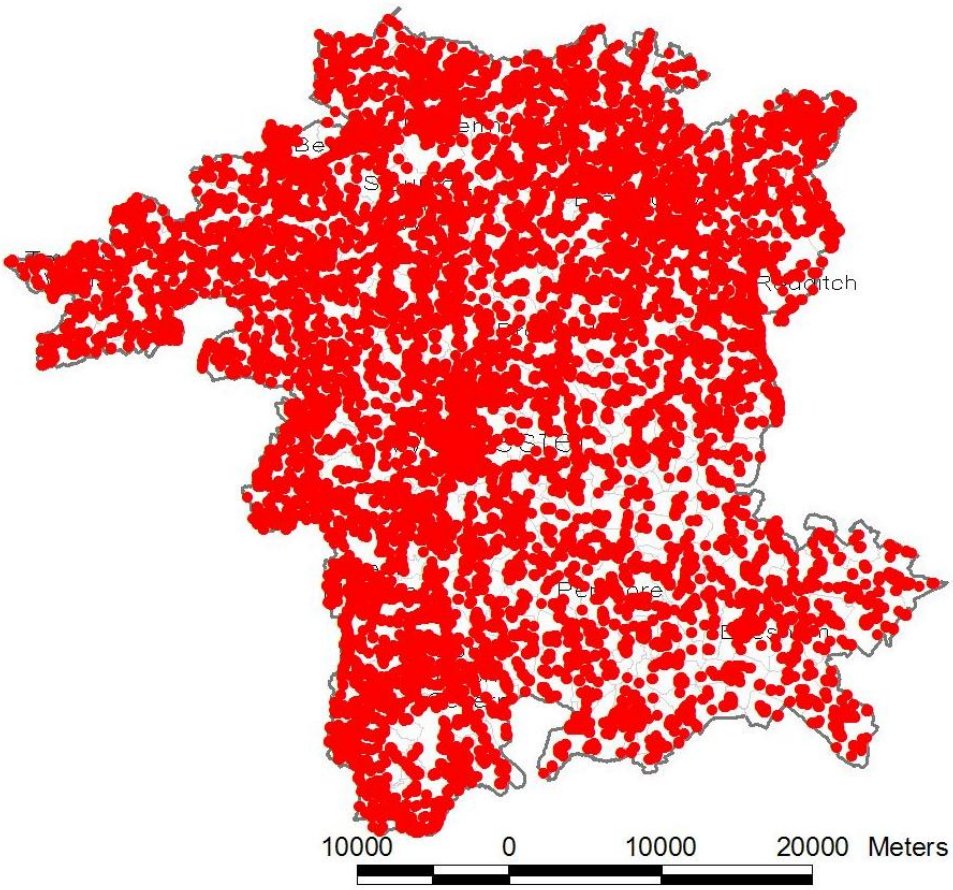

Figure 3. The Stage 1 mapping for Worcestershire County. © Crown Copyright, WCC 100015914

It took 1.5 days to complete the Stage 1 mapping for the seven parishes (referred to as the Pilot Study Area below) and a further three days to print out all the maps ready for Stage 2. It took 12 days to complete the Stage 1 mapping for the rest of the County.

Whether buildings could be photographed has been identified in the GIS shape file for the Pilot Study Area. It was originally intended not to add this data, but the project has shown that it is quite helpful to have the photo UID, or an explanation of why there isn't one, within the GIS. It was felt that this would be a help to the Conservation Officers, who will not have direct access to the HER, as they will be able to tell instantly if there is a photograph of a particular building within the associated parish report. It took an extra 3 days to add this data into the GIS. The GIS also contains information on whether the building is Listed and/or in a Conservation Area for the whole County. These fields were populated automatically by querying the County .shp file for Conservation Areas and the Listed Building .shp file supplied by English Heritage.

The Stage 1 GIS .shp file has identified 43,105 'points' in Worcestershire that are potentially buildings over 120 years old. Some of these will be new properties on the footprint of old buildings and many will have been substantially altered over the 20th and 21st centuries, however, the vast majority of these buildings will be of historic significance. It is these buildings that create the varying historic character of Worcestershire. In the Pilot Study Area we initially identified 2611 potential buildings.

This resulted in 1330 HER building records being created or updated in the HER, around half the initial number of points.

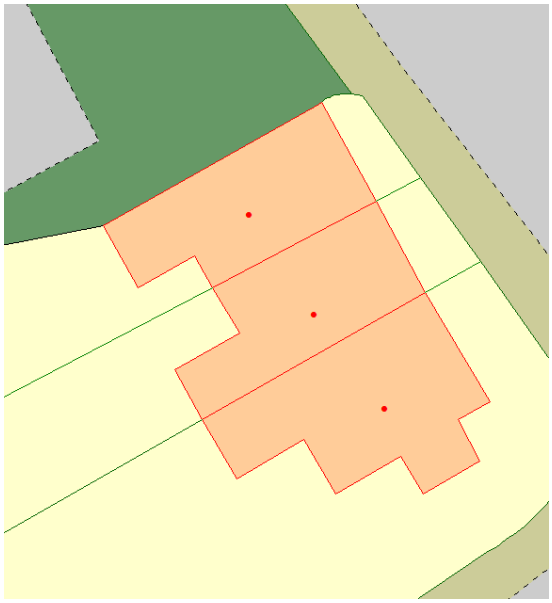

Figure 4. The Stage 1 mapping. One 'point' is given to each Mastermap polygon. Following photography, these properties could have one HER record if they are a terrace of cottages, or three records if they are adjoined properties built at different times. © Crown Copyright, WCC 100015914

It seems likely that the 43,105 potential buildings will result in fewer actual historic buildings. Given that there are already over 10,000 buildings in the HER (including 20th century buildings) and we have only covered around 15% of the County with HBW, we would expect that substantially more than half the 'points' will result in new historic building records. In the rural parish of Hanley, for example, 113 initial 'points' resulted in 116 historic building records. In areas with large numbers of 19th century terraced housing, the final number of HER records is much less than the initial number of points. Conversely, in rural areas, particularly in the Northwest where there has been little 20th century development, most ‘points’ result in HER building records and sometimes one point turns out to be two separate, but adjoined, properties/barns. It would seem likely, based on the number of points and the known variations in historic building character across the county, that there will be around 35,000 – 40,000 historic buildings over 120 years old in Worcestershire.

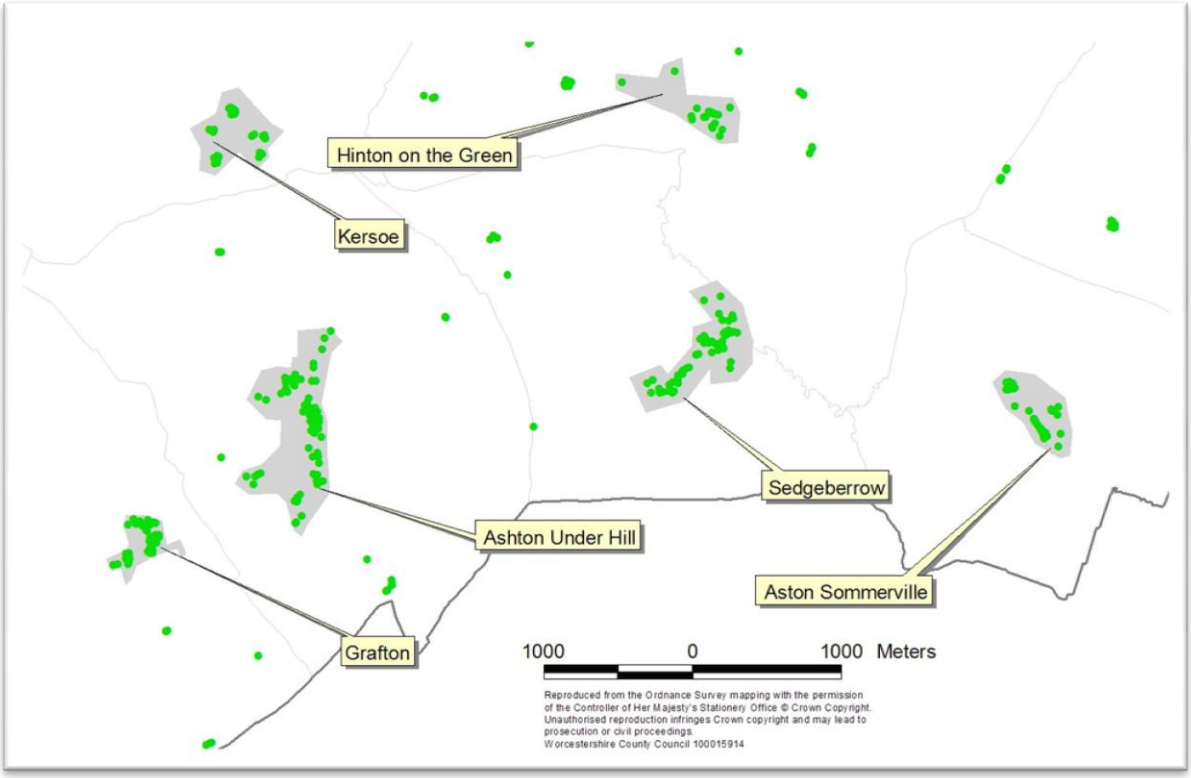

Figure 5. Stage 1 mapping in the South of the County. Distinctive nucleated settlements

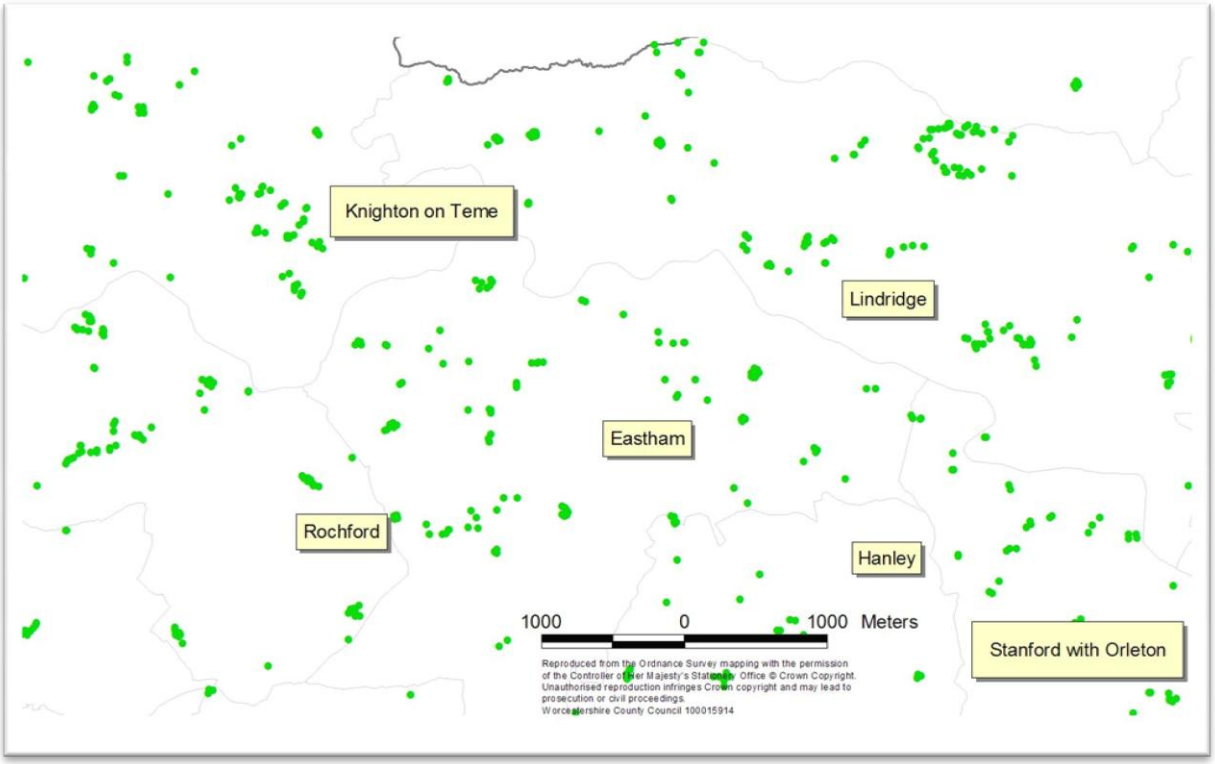

Figure 6. Stage 1 mapping in the Northwest of the County at the same scale. Dispersed settlement with no clearly defined villages.

Even with this level of data, a huge amount can be gleaned about the buildings of Worcestershire without looking at the individual properties. At a landscape scale, the

settlement character can clearly be seen. Figure 3, showing the whole County, appears to show fewer buildings in the south east at this scale. In fact, the buildings are clumped into nucleated settlements. Building densities vary across the County. The highest densities are concentrated, unsurprisingly, around Worcester, Malvern, Evesham, Kidderminster, Bromsgrove and some of the parishes covered in the Pilot Study (Dodford with Grafton, Belbroughton and Clent).

Figures 5 and 6, which are at the same scale, show the diverse nature of settlement in Worcestershire. In the south of the County (Figure 5), settlement is nucleated, with few buildings outside the village envelope. Farmsteads are located within villages and there are few outfarms or isolated barns. The parish of Sedgeberrow in Figure 5 was surveyed in 2008 and the five buildings outside the village are late 19th century in date. The 1776 map drawn by Snape shows no buildings outside the village at all. The Northwest of the County (Figure 6) is the exact opposite, with very few areas of nucleated settlement. These broad trends are not new information, but the GIS data allows us to clearly map the local differences and spot anomalies in the trends. Links with Historic Landscape Characterisation are starting to appear, looking at land use, particularly the distribution of heathland and drove ways, and how this correlates with the changing settlement patterns. The HLC for Worcestershire is not yet finished and this analysis is at a very early stage, but it promises to be interesting.

Around a quarter of the HBW points are within Conservation Areas (10,779). In the Southeast this percentage rises to almost half, where historic buildings are mostly confined to nucleated settlements. In the far Northwest very few historic buildings are within Conservation Areas. It is easier to define Conservation Areas and write management plans for nucleated settlements, where most of the historic buildings are clustered together. A different approach is required in areas where the buildings are widely dispersed and it is hard to define a 'village core'. The Villages Characterisation project is intending to tackle this issue and the HBW Stage 1 GIS .shp file will aid in this, as it will clearly pick out the historic settlement patterns. This is particularly important in areas where 20th century infill has created nucleated settlements in historically dispersed landscapes, masking that dispersed nature and changing the character of the landscape.

5.2 Stage 2: Fieldwork

It took 18 days for the HER Assistants to complete the fieldwork for Stage 2 in the Pilot Study Area. The time allocated for the fieldwork was roughly accurate in the Project Design. The amount of money allocated for mileage and expenses claims was also more than adequate. The reason that the mileage came in under budget was because we had two members of staff out together sharing a car. Car sharing is a good tip for others. The two members of staff made the best use of sharing one car to cover the Pilot Study Area. Without doing this, the mileage claims would have been around £400-£425, so we saved c.20% this way.

90% of the potential historic buildings identified in Stage 1 could be photographed from PRoW. The remaining 10% were identified as best as possible using aerial photographic evidence (including oblique prints held in the HER), EH Listed building descriptions, Google Streetview, map data and occasionally estate agents' sale particulars. The Google images and sale particulars were not retained due to copyright issues, they were just used to compile descriptions of the buildings and create HER records either where buildings could not be seen from PRoW or, in the case of schools

for example, where kids were outside at the time the photographer surveyed the area. This has resulted in comprehensive (over 98%) coverage of the Pilot Study Area.

Stage 2 resulted in 2172 photographs of the 1330 historic buildings ultimately identified in the HER. The main reason for the fewer buildings than 'points' (2611) is that there is a high number of terraces in this area and they required only one HER record, but were originally given one point per Mastermap polygon in the HER. The main reason for the much higher number of photographs than HER records is that there has been quite a lot of modern rebuilding on the footprint of historic buildings in the area. Many of the 2172 photographs show modern buildings (although some are duplicate photographs of historic buildings from other angles). The Pilot Study Area is almost entirely Green Belt and it is easier to gain planning permission for demolition and rebuilding on the same footprint, than to build an extra or much larger property. Whether a similar level of demolition and rebuild is present outside Green Belt areas is unknown, but it will be interesting to see if the trend continues as we complete more of the County in the future.

It was expected that there would be more buildings in the Northeast, as this part of the County was more densely populated in the 19th century, but this is around a third higher than expected in these parishes. If we had completed the Stage 1 mapping before we had started planning Stage 2, then we would have known this in advance and we would have been able to plan better. Now that we have complete County coverage, we can more accurately estimate Stages 2 to 4 across the County.

The length of time that it takes to complete Stage 2 varies depending on the level of dispersed settlement. In Sedgeberrow, for example, all but five historic buildings lie within the village core and it took just 35 minutes to photograph the parish. In the Northwest, the parish of Hanley took two days to photograph. This is a slightly larger parish, but had roughly the same number of potential buildings identified in Stage 1. Due to the dispersed nature of the settlement, Stage 2 here involved a lot of walking.

The photographs will take up a significant amount of server space. Each original high resolution image was between 1.5MB and 1.8MB, with the entire pilot study archive totalling 8.5GB. Lower resolution versions of the images should be used in the reports, but the originals should be kept.

5.3 Stages 3 and 4: Report creation and integration

It is impossible to separate the time taken on these two stages as they were undertaken in tandem, with the building data being entered into the Stage 3 report at the same time as the polygon was added to the HER. The data was added to the HER record following the check by the Buildings' Archaeologist.

It took longer to complete Stages 3 and 4 than anticipated. The project came in under budget for Stage 1, Stage 2, transport and equipment. This meant that the project as a whole came in only 4% over budget.

The main reason for the slight overspend was the under-estimation of the time taken for the Buildings' Archaeologist to check the Stage 3 reports. Partially this was due to a higher number of buildings than originally estimated.

The idea of the Stage 3 building description is that it is a brief pointer on the type and date of building. The description is not meant to be a full description, as might be

expected in a List description. The HER Assistants and the Buildings' Archaeologist were asked to keep the descriptions to a maximum of three lines. Some over-enthusiastic describing of more interesting buildings meant that this did not always happen and this contributed to the additional time required for Stage 3.

As the project progressed, it was decided to change the format of the Word document to include a table with the photograph number and the HER reference (LB number if applicable). It was felt that it would be much harder to miss out these essential numbers if they were in a separate field and much easier to search on them afterwards. Originally we intended to number each photograph sequentially from 1 onwards as this looks neater. It was decided, on reflection, to leave the original photograph numbers. Although this does not look as neat, it is far quicker than re-numbering and it allows one to go back to the original field notes and cross-reference the numbers if there is any confusion.

Project Stage or Expense	**Time Taken (in days)**	**Time originally allocated**
Stage 1 mapping (for Pilot Study Area)	4.5 days	5 days
Stage 1 mapping (for rest of County)	12 days	15 days
Stage 2 (Field work)	18 days	20 days
Stages 3 and 4 (report creation and integration into the HER)	77 days	50 days
Checking of reports by Buildings' Archaeologist	8 days	2.5 days
Checking of reports by Bromsgrove CO	2 days	2 days
Stage 5 – Production of guidance for other HERs (*including revisions and dissemination still to come).	4 days	6 days*
Transport/mileage	686 miles (£321.73)	£400
Camera/PPE	£259.28	£500

Table 1. Breakdown of Stages.

5.4 Stage 5: Guidance for other HERs

The guidance documentation for other HERs is attached as Appendix B. This document is intended to help local authorities conduct a similar project in their local area.

6 Updated Methodology

The methodology set out in the Project Design has evolved slightly during the project. Below is an updated Methodology. This methodology relates specifically to Worcestershire and doesn't contain detailed information on image sizes etc. The

guidance for other HERs (Appendix B) contains a more detailed methodology that is suitable for any HER.

The project is set up in four stages:

- **Stage 1**: The 1st Edition Ordnance Survey (OS) mapping 1882-89 25" (1:2500) is overlaid on the modern OS Mastermap mapping. The HER holds both modern OS Mastermap mapping and a [1]georeferenced raster theme of the 1st Edition OS of 1882-89. It is possible to make the 1st Edition OS map transparent and overlay it on the modern map (Figure 7). All buildings that appear to exist on both maps are identified. A GIS point data .shp file is produced in Arcview. No attribute data is added initially.

  Following the Stage 2 fieldwork the following attribute data is added: whether the building is Listed or in a Conservation Area and the photograph number if the building has been photographed or a reason why there is no number e.g. Building not visible from a PRoW. Production of this GIS theme is very rapid and offers a baseline evidence base, as shown in Section 5.1. It will allow buildings of historic potential to be identified at an early stage. This theme can be added to the HER and District planning GIS software.

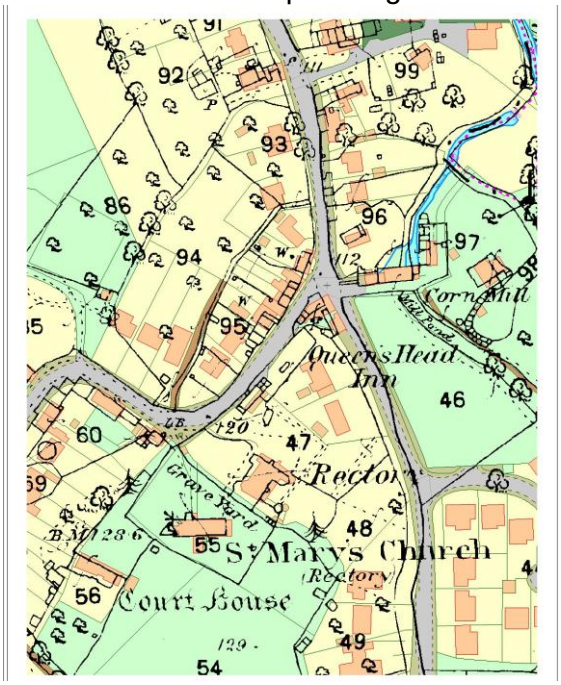

Figure 7. The 1st Edition Ordnance Survey overlain on the modern map.

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- **Stage 2**: Those buildings that are visible from the public roads or footpaths are photographed. Sometimes, modern buildings are built on the footprint of earlier structures. It is equally important to photograph these buildings as well, as this provides evidence to anyone conducting research into the area in future that the building that they can see on the map is not historic.

[1] Georeference- A method of connecting mapped information held in an image file with its location on the earth, i.e. associating each object on a map with a latitude and longitude so that they can be plotted and displayed against other maps/data in the same geographical location.

Photographs are taken using a digital camera that is capable of taking high quality shots and has optical rather than digital zoom. A mid-range, fully adjustable compact would be appropriate, as a DSLR would be too large and expensive for the scope of this project. The images are stored within the project as JPEGs and then archived as TIFFs on the Worcestershire County Council server, which is backed up nightly. The photographs are archived by parish.

Each photograph should:

-show a view of two elevations of the building if possible.
-show the best view of the oldest part, if the building has been extended.
-not show personal items, such as children's toys or vehicles.
-be of high quality
-have the building fully in focus
-have adequate lighting (not to be taken fully towards the sun or in poor light)
-be taken using optical zoom, not digital as this causes pixilation.

It is inevitable that some vehicles will appear in photographs of the buildings, but their registration numbers should be obscured to avoid identification (this can be done easily in most photo editing software).

Figure 8. A photograph of an unlisted historic building taken during the Pilot Study. © WCC/EH

Above is an example of a typical photograph. Obviously it is not always possible to see two elevations of a building or to avoid photographing cars etc. Photographs are only taken from public roads and footpaths unless permission is given by the owners for them to be taken inside the property boundary. It is advisable to get written permission if someone offers to let you walk up their drive and photograph their home.

Where there is a group of contemporary terraced houses, it is expected that a single photograph of the terrace will be taken rather than one for each home. A single image for each house within the terrace would only be taken if substantial alterations had occurred, giving the houses distinctive and separate characters.

- **Stage 3**: A report for each parish is produced that contains a single photograph of each building and a short description, similar to those created for Listed buildings but much less detailed (see English Heritage's *'Images of England*' Website www.imagesofengland.org.uk). The Stage 3 reports are compiled by parish, of which there are 210 in Worcestershire.

- **Stage 4**: The data is added to the HER. Every building is mapped as a GIS polygon to its modern footprint as shown on OS Mastermap. A brief description is added to the HER record with digital links to the source report produced in Stage 3. This includes building materials and building dates (as far as can reasonably be determined from the external appearance). The HER is MIDAS Heritage compliant.

It is more efficient to complete Stages 3 and 4 in tandem. This may not be the case for other local authorities, but we found that creating the GIS polygon at the same time as writing the Stage 3 description made sense as it was necessary to check whether the building already existed in the HER, what the WSM number is (or allocate one fora new record), whether the building is subject to statutory designation and whether there is any pertinent information already in the HER that would inform the Stage 3 description. It is not an efficient use of time to copy the Stage 3 descriptions into the HER database immediately. The finished Stage 3 reports are sent to the WCC Buildings' Archaeologist and the District Council Conservation Officer. Once they have corrected any mistakes, then the descriptions are copied into the relevant HER records.

7 Ownership

7.1 Storage, conservation and archiving

All documentation and photographs associated with this project will be archived on the Worcestershire County Council servers. Worcestershire County Council's Information and Business Support have policies and procedures in place for ensuring that all material held on Council servers is backed up on a regular basis.

Copies of the Stage 3 reports will be distributed to Bromsgrove District Council, Redditch Borough Council and English Heritage. A copy of the Stage 1 GIS .shp file will be distributed to all the districts in Worcestershire. We are committed to updating this .shp file in the future and will resend the GIS .shp file to the districts at regular intervals.

Every building photographed during the project will have a corresponding record in the Worcestershire Historic Environment Record. Worcestershire County Council has a commitment to maintain and enhance this Record.

7.2 Copyright

Copyright of the data in the Pilot Study Area will be retained jointly by Worcestershire County Council and English Heritage. WCC will licence partners and others to use the information where this does not conflict with other copyrights (e.g. Ordnance Survey). All material copied from other sources will be fully acknowledged and relevant copyright conditions observed.

8 References

EH 2005. *English Heritage Research Agenda: An Introduction to English Heritage's Research Themes and Programmes.* English Heritage.

EH 2006. *Management of Research Projects in the Historic Environment: the MoRPHE Project Manager's Guide.* English Heritage.

Appendix A – HER21:6003 Risk Log

Appendix B – HER21:6003 Guidance for other Historic Environment Records

Worcestershire HBW, PD6003

Risk Log

DOCUMENT CONTROL	
Author(s):	Oliver Russell
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Appendix A

This table lists Risks identified during the planning of a project at the Initiation stage or Execution of a project. It should be prepared by the project manager and included with the Project Design document. The Risk Log should be reviewed at each Review Point. Refer to the Project Managers Guide for further guidance on the use of the Risk Log.

No.	Description	Probability	Impact	Countermeasures	Estimated time / cost	Owner	Date updated
1	Data loss due to camera failure or corruption during data downloads	Low	Medium	Photographs will be uploaded to WCC servers everyday which then ensures backup via WCC's existing procedures.	Maximum cost of 1 day's time in the field as photos backed up daily.	WHEAS	23-06-2010
2	Rate of stage 2 (photography) is slower than expected due to unfavourable weather, equipment failure or illness	Medium	Medium	Shortfalls in progress could made up by temporarily involvement of another HERA. The use of alternative WHEAS equipment in the case of failures could allow the project to continue on target.	Potential time delay, but this should be made up by the involvement of extra staff.	WHEAS	23-06-2010
3	Extended period of HERA sickness absence affecting delivery progress.	Low	Medium	The project has factored in 7 days sickness per annum based on the average across WCC. It would be possible to have another HERA available for short periods during the project to continue work.	Each day over 7 days per annum affecting project progress and incurring a cost to WCC.	WHEAS	23-06-2010
4	Extended period of Project	Low	Medium	The Project Leader does	Project will not		

	Leader sickness absence affecting delivery progress.			not carry out most of the project work and another member of WHEAS staff could cover in their absence as Project Leader.	enter a hiatus as another staff member would take up the project.		
5	Resignation of HERA .	Low	Medium	The HERA post would be advertised and filled, in the meantime another HERA could carry on the project work.	Project might enter a hiatus until the post is either seconded or backfilled. Recruitment cost to WCC	WHEAS	23-06-2010
6	Resignation of Project Leader	Low	Medium	The Project Leader is fully committed to completing this project as they have been the driving force from the beginning. In the unlikely event of resignation an existing member of staff would be seconded to the project until the post was filled.	Project will not enter a hiatus as another staff member would take up the project.	WHEAS	23-06-2010

HER21: Recording Historic Buildings Guidance for a rapid and consistent method of recording historic buildings into Historic Environment Records.

Our understanding of historic buildings is neither consistent nor comprehensive. There are around 375,000 Listed Building entries (LBs) in the country. These buildings are recognised as being of national importance and are given statutory protection, but there are probably at least 10 times as many buildings that date to the 19th century or earlier. It is these unlisted and unprotected buildings that define local distinctiveness. They are an integral part of the landscape, define the character of settlements and create a sense of place for the people living in them.

The methodology set out below suggests a way of consistently and rapidly recording these buildings into an Historic Environment Record. It is based on a pilot study carried out in Worcestershire and may need to be modified by other HERs to take account of, for example, differing GIS software. Recording of these buildings can never be quick, but it can be much faster than one might initially anticipate.

The project is set up in four stages (below). It is recommended that Stage 1 is completed for your entire area before Stages 2, 3 and 4 are planned. Completion of Stage 1 will allow you to assess reasonably accurately how long the other stages will take. Stage 1 is very rapid.

- **Stage 1**: The 1st Edition Ordnance Survey (OS) mapping of the late 1800s 25" (1:2500) is overlaid on the modern OS mapping (ideally Mastermap) at an equivalent scale. Most HERs hold both modern OS mapping and a [1]georeferenced raster theme of the 1st Edition OS of c.1880-1890 (varies across the country). It is possible to make the 1st Edition OS map transparent and overlay it on the modern map (Figure 1). All buildings that appear to exist on **both** maps are identified in a GIS point theme. If in doubt, place a point on a building, as the fieldwork stage will confirm whether it is the same building on both maps. For HERs without access to digital 1st Edition mapping, this process must be done by comparing paper maps and will take longer.

  No attribute data is added initially. Following Stage 2, the photograph number will be added to the theme, or a reason why there is no number e.g. Building not visible from a PRoW.

  The following attribute data can also be added if you think it will be useful and your GIS allows rapid querying of the data: whether the building is Listed (LB) or in a Conservation Area (CA). If you have LBs and CAs digitised as polygons in your HER, then it is a 5 minute job to populate the attribute table of the GIS

[1] Georeference- A method of locating mapped information geographically, i.e. associating each object on a map with a latitude and longitude so that they can be plotted and displayed against other maps/data in the same geographical location.

theme by selecting all points that fall within the polygons and inputting the data (using the 'calculate' button in ArcView 3.3). This is not essential, but if the theme is being sent to Conservation Officers who do not have direct access to the HER, then it can be helpful for them. If the relevant data is not available and the task has to be done manually, then it is probably not worth doing.

Production of this GIS theme is very rapid and offers a baseline evidence base. It will allow buildings of historic potential to be identified at an early stage. This theme can be added to the HER and District planning GIS software.

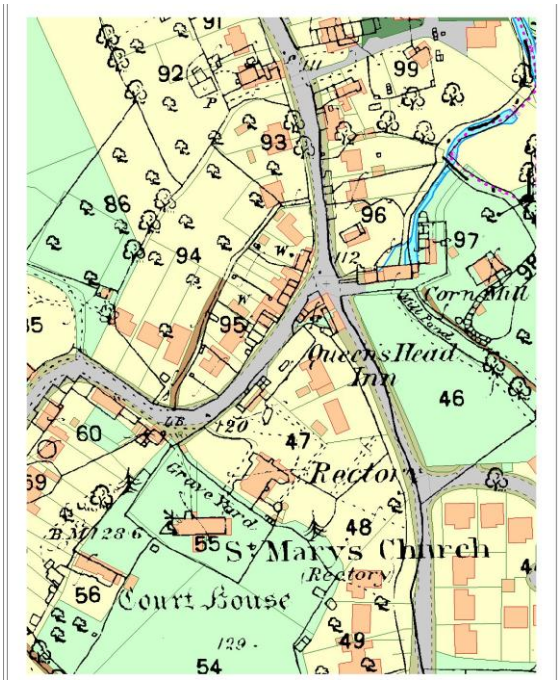

Figure 1. The 1st Edition Ordnance Survey overlain on the modern map.

It took around 15 days to cover the County of Worcestershire, which is around 17,000sq km. The resulting theme contained 43,000 'points' indicating the presence of potentially historic buildings.

Even with this level of data, a huge amount can be gleaned about the nature of the historic buildings without looking at the individual properties (see our HER21 report for project outcomes).

At a landscape scale, the settlement pattern can clearly be seen. A clearer picture of how long it will take to carry out Stage 2 can be estimated by looking at level of settlement nucleation. In parishes where all the potential historic buildings are confined to one village, it can take as little as 35 minutes to photograph the entire parish. In areas of dispersed settlement, where a lot of walking is required, it can take two days to photograph the same number of buildings.

The last part of Stage 1 is printing off the maps ready to take into the field for Stage 2. It takes a surprisingly long time to print out maps at the right scale. We used modern maps at 1:4000 or (1:2000 in densely populated areas). The modern maps also had the PRoW and the Stage 1 point theme overlain. In some instances, it is also helpful to take the historic mapping out as well.

It took 1.5 days to create the GIS theme for the area covered in the HER21 pilot study, but 3 days to print out all the maps and prepare routes to cover the area in the shortest time possible.

- **Stage 2**: Those buildings that are visible from the PRoW are photographed. Sometimes, modern buildings are built on the footprint of earlier structures. It is equally important to photograph these buildings as well, as this provides evidence to anyone conducting research into the area in future that the building that they can see on the map is not historic.

  We also photographed Listed buildings. These buildings already have descriptions and, in many cases, photographs, but this project will provide evidence of current condition, which can be particularly useful for buildings that haven't been revisited since inclusion on the List. This has already proved useful in the case of an enforcement notice on a Listed building.

  Photographs are taken using a digital camera that is capable of taking high quality shots and has optical rather than digital zoom. A mid-range, fully adjustable compact would be appropriate, although a DSLR would produce superior pictures as larger lenses give more light, which will result in a superior image capture and less distortion, and the faster shutter speeds will result in less camera shake. The lenses will generally also be of a higher quality, and the screens will probably allow a better assessment of the results.

  It is recommended that the images are stored within the project as small JPEGs and then archived elsewhere as TIFFs. 12 megapixels is equivalent to photographic film, and is probably the ideal resolution to aim for. Working on a parish by parish basis and storing the images in this way tends to produce manageable folder sizes.

  The resulting images will require a considerable amount of server space and it is advisable to consider this before starting Stage 2. Each original high resolution tiff image in the pilot study that Worcestershire carried out for the HER21 project was between 1.5MB and 1.8MB, with the entire pilot study archive totalling 8.5GB. Lower resolution versions of the images should be used in the reports, but the originals should be kept.

  An adequate amount of money should be set aside for mileage/train fares/travel. This will form a considerable expense during the lifetime of the project. A useful way of cutting down on mileage costs is to employ more than one member of staff at the same time and car-share. In Worcestershire car-sharing saved around 20% of the travel budget in the area covered in the HER21 pilot study.

  Each photograph should:

  -show a view of two elevations of the building if possible.
  -show the best view of the oldest part, if the building has been extended.
  -not show personal items, such as children's toys or vehicles.
  -be of high quality
  -have the building fully in focus

-have adequate lighting (not to be taken fully towards the sun or in poor light)
-be taken using optical zoom, not digital as this causes pixilation.

It is inevitable that some vehicles will appear in photographs of the buildings, but their registration numbers should be obscured to avoid identification (this can be done easily in most photo editing software with a pixelate or blur tool).

Figure 2. A photograph of an unlisted historic building taken during the Pilot Study. © WCC/EH

Above is an example of a typical photograph. Obviously it is not always possible to see two elevations of a building or to avoid photographing cars etc. Photographs are only taken from public roads and footpaths unless permission is given by the owners for them to be taken inside the property boundary. It is possible to ask permission to take photographs on private property, but written permission should be obtained and there is always the issue that the person living in the house might not own it. English Heritage produced guidelines on this for the Images of England project. Deciding to ask permission for properties not visible from PRoW will add a substantial amount of time to the project, although where a volunteer tried this in a parish (not part of the HER21 pilot study), he had a 100% success rate and was given a lot of extra useful information about the buildings.

Where there is a group of contemporary terraced houses, it is expected that a single photograph of the terrace will be taken rather than one for each home. A single image for each house within the terrace would only be taken if substantial alterations had occurred, giving the houses distinctive and separate character.

Where the owner does not want their building photographed, do not take a picture. Where the building is obscured by hedges or fencing take as much as is visible, where possible. Avoid taking pictures where children, or children's things (toys, garden play things etc.) are visible. If the building is not visible from close by and the camera has a good zoom facility, take pictures from a distance, where possible.

Record the photo number on the map, next to the dot or building or use a photo recording sheet if there are a lot of buildings in one area. Photo log fields could include: Map sheet/id, Building number, address, Photo number, time, date, file name. Be sure to use the file number not the internal camera number.

Where buildings are not visible, they can sometimes be identified using aerial photographic evidence (including oblique prints held in the HER), EH Listed building descriptions, Google Streetview, map data and occasionally estate agents' sale particulars. Third party images can be used to compile descriptions of buildings, but care should be taken about retaining images that are not your copyright.

In many cases, historic structures not identifiable from the map evidence will be encountered. These can be photographed as well and added in at Stage 3. Walls, sundials and milestones are examples of such structures. Often these will be made of local stone and will contribute significantly to the local character of an area.

- **Stage 3**: A report for each parish is produced that contains a single photograph of each building (or very occasionally two, if two elevations are very different) and a short description, similar to those created for Listed buildings but much less detailed (see English Heritage's *'Images of England*' Website www.imagesofengland.org.uk).

  The Stage 3 reports are compiled by parish. This might not be appropriate for all areas. When we come to look at the larger towns and Worcester City, the reports will need to be broken down into more manageable areas, perhaps wards or perhaps by a grid system.

  The idea of the Stage 3 building description is that it is a brief pointer on the type and date of the building. The description is not meant to be a full description, as might be expected in a List description. The HER Assistants and the Buildings' Archaeologist were asked to keep the descriptions to a maximum of three lines, otherwise the time taken to compile the reports can spiral.

  As the pilot study project progressed, it was decided to change the format of the Word document to include a table with the photograph number and the HER reference (LB number if applicable). It was felt that it would be much harder to miss out these essential numbers if they were in a separate field and much easier to search on them afterwards. Originally we intended to number each photograph sequentially from 1 onwards, e.g. Clent001, as this looks neater. It was decided, on reflection, to leave the original photograph numbers. Although this does not look as neat, it is far quicker than re-numbering and it allows one to go back to the original field notes and cross-reference the numbers if there is any confusion. Of course using the default image file numbers could cause problems as different cameras could potentially create images with the same number. Consideration should be given to these factors when deciding how to name the images. Also, metadata on the location and other photo info should ideally be included in the file, at least for the archive versions (image properties). The Archaeology Data Service has excellent guidelines on metadata.

Image No	Building Description	HER Ref
1 or camera file name e.g. P9170686	Description including brief address (house name/number, Road Name, Parish) for the title of the record in the HER. Description of the building in the following order (**no more than three sentences/three lines in the HER record**): whether listed (and grade) or unlisted, foundations (i.e. stone plinth), walls (i.e. red brick or timber framed with brick/rendered infill), roof (shape and description with any dormer windows and other features - ridge tiles etc), chimney (describe pots and decorations if any) and any other features (e.g. barge boards, gable ends, replacement/original windows) etc.. **For example**: Grade II listed two storey cottage, red brick walls (bond?) with sash windows, plain tile roof with two dormer windows and decorative bargeboards and plain brick chimney with terracotta chimney pots. N.B. A terrace of buildings, built at the same time, needs only one building record. Add any reference that may help create the record (e.g. tithe maps, old photographs on websites, history society publications, information from local residents etc.) Describe the building using consistent terms (to be agreed): ▪ Dentillated eaves (not dentilled - as in listed buildings description) ▪ More to be added as required...	**HER_Ref** and **LBreference** listed building reference (no spaces) if listed or **None** if no reference (where the photograph shows a modern building)

Table 1. An example of the Stage 3 report.

- **Stage 4**: The data is added to the HER. Every building is mapped as a GIS polygon to its **modern** footprint as shown on the modern OS map. A brief description is added to the HER record with digital links to the source report produced in Stage 3. This includes building materials and building dates (as far as can reasonably be determined from the external appearance).

  It is more efficient to complete Stages 3 and 4 in tandem. This may not be the case for other local authorities, but we found that creating the GIS polygon at the same time as writing the Stage 3 description made sense as it was necessary to check whether the building already existed in the HER, what the HER_REF number was (or allocate one for a new record), whether the building is subject to statutory designation and whether there was any pertinent information already in the HER that would inform the Stage 3 description. It is not an efficient use of time to copy the Stage 3 descriptions into the HER database immediately.

  The finished Stage 3 reports are sent to a Buildings' Archaeologist and the District Council Conservation Officer. Once they have corrected any mistakes, then the descriptions are copied into the relevant HER records. Exporting the reports as stand-alone products, rather than through the HER, is quite difficult as the reports tend to be quite large. The easiest way around this is to supply the

reports digitally on a CD as a PDF of the Word document with hyperlinks from the descriptions to the image numbers.

We found that, on average, it takes around four times as long to complete Stages 3 and 4 as it took to complete Stage 2. This varies depending on how dispersed the settlement in the parish is, but on average 20 buildings were described, checked and added to the HER per day during the HER21 project. This average increased sharply towards the end of the project as the HER Assistants became used to the methodology and better at describing buildings.

Below is a table to aid other Counties in estimating project cost. Worcestershire county is around 17,000 sq kilometres.

Project Stage or Expense	**Time Taken**
Stage 1 mapping for Pilot Study Area (including printing out maps for Stage 2).	1.5 days (3 days)
Stage 1 mapping for the rest of Worcestershire	12 days
Stage 2 Field work in the Pilot Study Area	18 days
Stages 3 and 4 in the Pilot Study Area (report creation and integration into the HER)	77 days
Checking of reports by Buildings' Archaeologist	8 days
Checking of reports by Bromsgrove CO	2 days
Transport/mileage	686 miles (£321.73)
Camera/PPE	£259.28

Table 1. Breakdown of Stages.

For guidance on management of projects see

Lee, E. 2006 Management of Research Projects in the Historic Environment The MoRPHE Project Managers Guide. English Heritage www.english-heritage.org.uk/morphe

For more in-depth coverage on building recording see

Menuge A. et al 2006 'Understanding Historic Buildings A guide to good recording practice' English Heritage www.english-heritage.org.uk/publications/understanding-historic-buildings. The surveys covered by the Historic Buildings recording guidance equate to extensive Level 1 surveys as set out in the English Heritage guidance.

For integration with development of Local Listing projects see

Wilson G. et al (forthcoming) Good Practice Guide for Local Listing. English Heritage http://www.english-heritage.org.uk/caring/listing/local/local-designations/

For more on digital archiving see

May K. 2006 MoRPHE Technical Guide 1 Digital Archiving and Digital Dissemination English Heritage www.english-heritage.org.uk/morphe