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# THE ENGLISH HERITAGE COUNTRYSIDE SURVEY PILOT PROJECT: 2002-03 THE COLLECTED PAPERS

Peter Topping, Paul Barnwell, David Graty, Robert Bewley and Duncan McCallum

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# THE COLLECTED PAPERS OF THE ENGLISH HERITAGE COUNTRYSIDE SURVEY PILOT PROJECT: 2002-3

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*Cover image: Whatley limestone quarry in the East Mendip hills © English Heritage (ST 7348/10 24-MAR-*

# COUNTRYSIDE SURVEY: THE ENGLISH HERITAGE PILOT PROJECT 2002-3

**Introduction**

Between September 2002 and March 2003, English Heritage's (EH) archaeological, aerial and buildings survey and investigation teams from the Research Department, together with staff from the National Monuments Record Centre (NMRC), carried out a trial survey project to test the feasibility of creating a heritage layer for the quinquennial Countryside Survey (CS), scheduled to take place during 2006-7. This Pilot Project sought to parallel the CS and design a methodology to monitor change in the rural Historic Environment and develop a series of robust and testable 'indicators' which could inform Government policymakers and stand alongside those created for the natural environment.

The EH Pilot Project undertook the field assessment of 26 of the designated CS square kilometre transects (a 10% sample), chosen to record a range of habitats and provide a geographical spread. The emergent methodology included plough damage and risk assessments for all sites and monuments, thus keying the collected CS Pilot Project field data into wider EH monitoring and management strategies (e.g. the DEFRA Plough Zone Monitoring Project and the 'Scheduled Monuments @ Risk' initiative) and particularly the needs of the SHER (State of the Historic Environment Report) process. All teams involved delivered their work programmes ahead of schedule, demonstrating that the rapid survey methodology was workable and cost-effective. The throughflow of CS Pilot Project field data to the NMR helped to update the national record, fill gaps and provided a useful check of the quality and accuracy of existing holdings.

The successful completion of the Pilot Project confirmed that EH had the necessary in-house expertise and resources to undertake the full Countryside Survey and create a baseline heritage dataset. Such data could also usefully inform the separate EH SHER process by identifying headline trends based upon the national indicators of change as recorded by expert field assessment. Unfortunately, the organisers of the CS decided, for various reasons, not to include a heritage layer in the next survey despite their own recognition of the value of such additional data and its potential to add far greater time depth. Consequently, the papers collected here are presented as a record of the rationale behind the EH Pilot Project methodology, alongside the definitions which underpinned the choice of indicators of change. The results of the Pilot Project, a record of the logistics and resources used, together with a sketch of the *then* potential estimated costs for participation in the full CS complete the collection. The legacy of the EH Pilot Project has been the creation of a rapid, holistic survey methodology which can provide a national overview of rural change, headline trends and threats to the Historic Environment.

*Peter Topping, Head of Archaeological Survey and Investigation*
*Cambridge, Monday 22 May 2006*

# OPERATIONAL GUIDELINES FOR A PILOT PROJECT TO MONITOR CHANGE IN THE HISTORIC ENVIRONMENT

*Peter Topping, Paul Barnwell and David Graty*

## 1. Purpose of the Pilot Project

The purpose of this EH Pilot Project is to test the feasibility of creating a heritage layer for the quinquennial Countryside Survey (CS). The Pilot Project will test methodologies and monitor time and resource impacts upon the various survey and archival teams within EH to inform future planning. Ultimately the decision upon the appropriate level of EH participation in the CS will be informed by the experiences of the Pilot Project.

The core objective of the Pilot Project is to create a series of indicators which will monitor changes in the Historic Environment that are robust and testable, which might also form a part of the future SHER process and underpin other corporate agendas such as HLC. The incorporation of a heritage layer into the CS will introduce both 'historic' and 'real' time depth into the study of the *'drivers'* of change in the Historic Environment and help contextualise the evolution of the natural environment. Overall, future EH participation in the CS will directly provide the organisation with further influence upon rural policy making at Government level.

The Pilot Project, to be conducted in 2002-3, needs to establish six basics:

- The indicators of change which will be used in all future surveys following the initial Pilot Project.
- A method for compiling the data required to produce the indicators.
- A method and flowline for creating, checking and curating the base-line data generated in the initial Pilot Project.
- Confirm the players in the multi-disciplinary team.
- Establish a Project Board.
- The Pilot Project must also identify in detail the resources required to conduct both the full base-line survey and the cyclical re-surveys.

Following completion of the Pilot Project, a report will be drafted to review the project and to inform the framing of the next stages and the appropriate level for full participation in the Countryside Survey.

At this stage it is not the intention to produce records to enhance the NMR, HERs or other heritage archives. The database will stand alone for the purposes of analysis by the CS and to protect landowner confidentiality in line with current CS procedures.

## 2. The scale of the Pilot Project

The full CS currently monitors change in 263 square kilometre sample areas scattered throughout England and covering a range of rural habitat types and topographic settings. For the purposes of this Pilot Project it is suggested that a sample of roughly 10%, or 26 $km^2$, should be surveyed in the field. The sample areas chosen for the Pilot Project cover a variety of habitats and are scattered over the country to both monitor the various timescales for different landscape settings and also spread the fieldwork load across the teams. The HLC Programme, NMP, MPP and MARS have heavily influenced the choice of sample squares.

## 3. Survey product

The CS is a rapid survey and as such does not generate any field drawn or digitised survey information. All CS survey documentation, including the Land Cover Map, is derived from remote sensing and enhanced in the field. Consequently, to adhere to the principles of the survey, the proposed EH 'heritage layer' should be text-driven, using only existing archives, but with field photography as an option for recording damaged or endangered sites. The latter can then inform the normal EH management procedures, as necessary, as a follow-up to the Pilot Project.

## 4. The role of the NMR teams

The NMR Teams will contribute to the Pilot Project by: (1) collecting the km sample square data sets for field survey, and (2) cleaning, formatting and curating the field enhanced CS data sets into an appropriate database to facilitate future analysis.

Each of the 26 Pilot Project km squares will require a robust data set derived from various existing archives (NMR/HERs) to provide the field teams with an up to date overview of the sample area and the necessary documentation. Ideally, in the full survey, this data set might also include the Environment Agency's LIDAR digital imagery for both information and interpretation in the field alongside an NMP plot, thus again (see (2) above) allowing this fieldwork to have a direct relevance to another current EH project.

4.1 The following are the essential elements required by the field teams:

- Enhanced HSIS / HER data (including Listed Buildings information)
- OS mapping (both modern and historic)
- First Edition 1:2500 OS Maps
- Second Edition 1:2500 OS Maps
- Modern 1:2500 OS Maps
- Buildings shown on the Second Edition map which appear also to be depicted on the Modern map should be circled in pencil by the NMR Team.
- The number of circled buildings to be noted on the back of the modern map by the NMR Team.
- If there appear to be more than twenty circled buildings, the 100 metre grid lines

to be highlighted on the modern map.

- Relevant aerial photography (both oblique and vertical)

4.2 Pilot Project Database

The field survey teams will use a paper standard recording form to log their data during survey. An appropriate electronic database will be established to curate the Pilot Project field data, which will be held and managed by the NMR teams. This data set will form the foundation for the future EH CS database.

4.3 Completed field data

Following post-fieldwork analysis, the completed field data sets will be passed to the NMR teams to clean and input to a free standing database to allow analysis by the CS teams but with strict adherence, at this stage, to maintaining landowner confidentiality.

The NMR teams will process the field data for the purposes of the Pilot Project, but for participation in the full CS other provision must be found if the NMR programmes are not to be severely disrupted.

4.4 Timetable for NMR support

To meet the overall deadline for completion by the end of March 2003, the following broad timescale will be necessary:

| ***Activity*** | *Deadline* |
|---|---|
| (1) Collection of data sets for all 26 km$^2$ and delivery to appropriate Archaeological and Architectural Investigation teams | 31 August 02 |
| (2) Return of field-enhanced records to NMR teams for input to appropriate database | 30 April 03 |
| (3) Cleaning and input of field data to EH/NMR CS database | 31 May 03 |

## 5. Fieldwork

Teams will be drawn from both Archaeological and Architectural Investigation, and from all office locations. The field teams will carefully monitor their time inputs to the project for assessment and analysis.

5.1 Timescales for the fieldwork

The CS environmentalists record their 1km sample squares in 2-6 days. If this is used as a yardstick, then for a 10% sample comprising 26 squares and allowing a maximum of 5 days for fieldwork per survey square, such a timescale should take EH field teams no more than 26 working weeks in each of the specialisms. Considering the present team resource in both Archaeological and Architectural Investigation, and if this project were to be spread across all teams equally, it should

take a maximum of 2-3 weeks to complete (allowing for some interruptions and follow-up work in the office). If any sample square should take longer than this, then adjustments will be needed to the survey methodology.

| *Activity* | *Deadline* |
|---|---|
| (1) Field teams receive NMR data sets | 31 August 02 |
| (2) Architectural Investigation teams begin fieldwork | 1 September 02 |
| (3) Archaeological Survey and Investigation teams begin fieldwork | 1 September 02 |
| (4) Architectural Investigation teams complete fieldwork | 31 December 02 |
| (5) Archaeological Survey and Investigation teams complete fieldwork | 28 February 03 |
| (6) All field data collated and analysed | 31 March 03 |
| (7) All field records passed to NMR Teams for cleaning and input to the appropriate HSIS database | 30 April 03 |

## 6. Survey and NMR teams: post-fieldwork phase

Field-enhanced data generated by the Pilot Project will be collated by each contributing team and combined with the records of each team's time inputs to the project. These two sets of data will be passed on for analysis to a working party nominated by the Project Board. For the purposes of the Pilot Project this analysis will focus upon the effectiveness of the proposed project methodologies, flowlines and timescales to inform recommendations regarding participation in the full CS.

## 7. Pilot Project Assessment and Report

The Project Manager, with assistance from members of the Project Board, will draft a review of the Pilot Project to assess its effectiveness in both operational terms and in monitoring change in the countryside. Where necessary the report will present recommendations for alterations to procedures and/or flowlines and assess the effectiveness of the choice of indicators of rural change. The report will also model the necessary resources to undertake participation in the full CS. The report will be completed by 31 May 03.

## 8. Overall timetable for the Pilot Project

At present it is anticipated that the next CS will begin in 2006. Consequently, to allow the Pilot Project to run its course and then open negotiations with the CS Partnership for admission to the project, arguably the Pilot Project should be completed no later than 31 August 2003. This will leave some 2+ years to define and empower the EH resources needed to engage with the CS before the next survey begins.

| ***Activity*** | ***Deadline*** |
|---|---|
| (1) Brief report to HSLAC as part of the State of the Historic Environment (SHER) Report | 28 June 02 |
| (2) Project Design compiled by PT and signed off | 5 July 02 |

| | |
|---|---|
| (3) Training of all staff involved | By start of relevant phase of Pilot Project |
| (4) Collection of data sets for all 26 km$^2$ and delivery to appropriate Archaeological and Architectural Investigation teams | 31 August 02 |
| (5) Field teams receive NMR data sets | 31 August 02 |
| (6) Field teams receive ID cards and information leaflets | 31 August 02 |
| (7) Architectural Investigation teams begin fieldwork | 1 September 02 |
| (8) Archaeological Survey and Investigation teams begin fieldwork | 1 September 02 |
| (9) Architectural Investigation teams complete fieldwork | 31 December 02 |
| (10) Archaeological Survey and Investigation teams complete fieldwork | 28 February 03 |
| (11) All field data collated and analysed | 31 March 03 |
| (12) Debrief of staff involved | 31 March 03 |
| (13) All field records passed to NMR Teams for cleaning and input to the appropriate database | 30 April 03 |
| (14) Cleaning and input of field data to EH/NMR CS database | 31 May 03 |
| (15) Project Board discusses results of Pilot Project, make adjustments to procedures and flowlines, and ratifies revised guidelines. Examples of enhanced data sets will be chosen for illustrative purposes for the subsequent negotiations with the CS Partnership | 31 May 03 |
| (16) Final analysis and Report on Pilot Project drafted by Project Manager | 31 May 03 |
| (17) Pilot Project report is assessed by Project Board. Nominees of the Project Board and/or Senior Managers open discussions with the CS Partnership regarding entry to the full survey | 31 August 03 |
| ***The next full Countryside Survey*** | ***2006*** |

**9. Health and Safety/Risk Assessment**

In the wake of Foot and Mouth Disease, and against the general background of pressures on the rural economy, as well as of issues of public concern recently raised in relation to the 'Images of England' project, staff may expect to encounter some hostility. In order to reduce the risk, it is recommended that staff are supplied with:

- a well-produced Information Sheet which can be distributed upon demand or used by way of introduction to private property; it should bear the *imprimatur* of both English Heritage and *ideally* the Countryside Agency, to make clear both the specific affiliation of staff and the wider framework within which the project sits (which will be familiar to a high proportion of property owners and occupants).
- a proper English Heritage Identity Card.

All other Risk factors are as covered in the generic Archaeological and Architectural Investigation fieldwork Risk Assessments kept by the Operations Managers.

# APPENDIX 1: HISTORIC ENVIRONMENT INDICATORS

**Aim**: To measure and quantify '*change*' in the Historic Environment against a series of robust and testable indicators with the intention of creating a heritage 'layer' within the Countryside Survey. This heritage layer will add both 'historic' and 'real' time depth to the CS, assess and monitor levels of preservation against previous records, and identify and quantify (where possible) real and potential threats to the heritage stock with a view to informing rural policymaking decisions at Government level. The proposed range of indicators of change in the Historic Environment - set against their CS equivalent Broad Habitats - are as follows:

| **Indicators of change in the Historic Environment** | **Countryside Survey Broad Habitats** |
|---|---|
| 1. Sites in permanent cultivation | Enclosed farmland – Arable and Horticultural, Improved and Neutral Grasslands<br><br>*Arable and Horticultural* |
| 2. Sites in established pasture / set aside / woodland / derelict or brown field areas | Enclosed farmland – Arable and Horticultural, Improved and Neutral Grasslands<br><br>*Arable and Horticultural*<br>*Improved Grassland*<br>*Neutral Grassland*<br>Woodlands<br>Developed Land in Rural Areas<br>*Built-up and Gardens* |
| 3. Fabric of the Historic Environment: field systems / linear boundaries | Boundary and Linear Features |
| 4. Fabric of the Historic Environment: linear routeways | Developed Land in Rural Areas<br>*Built-up and Gardens* |
| 5. Fabric of the Historic Environment: settlements | Developed Land in Rural Areas<br>*Built-up and Gardens* |
| 6. Fabric of the Historic Environment: woodland | Woodlands |
| 7. Fabric of the Historic Environment: gardens and parklands | Developed Land in Rural Areas<br>*Built-up and Gardens* |
| 8. Fabric of the Historic Environment: military installations | Developed Land in Rural Areas<br>*Built-up and Gardens* |

| | |
|---|---|
| 9. Fabric of the Historic Environment: industrial sites | Developed Land in Rural Areas<br>*Built-up and Gardens*<br>Mountain, Moor, Heath and Down<br>*Inland Rock*<br>Rivers, Streams, and Standing Waters<br>*Standing Waters and Canals* |
| 10. Fabric of the Historic Environment: water supply (ponds / wells / reservoirs / troughs / fountains / cisterns) | Rivers, Streams, and Standing Waters<br>*Standing Waters and Canals* |
| 11. Fabric of the Historic Environment: marshes, saltings, fens | Mountain, Moor, Heath and Down<br>*Fen, Marsh and Swamp*<br>*Bog*<br>Rivers, Streams, and Standing Waters<br>*Standing Waters and Canals*<br>*Rivers and Streams* |
| 12. Fabric of the Historic Environment: buildings | Developed Land in Rural Areas<br>*Built-up and Gardens* |

**CATEGORY 1**

**Sites in permanent cultivation**

- Known/unknown cropmark or residual earthwork
- Classification
- Present condition:
  - earthwork survival ?
  - substantially damaged
  - destroyed
  - presence/absence of artefact scatter
- Level of change from last record
- Past land use (where known)
- Present land use:
  - permanent pasture
  - improved, in rotational pasture regime
  - under long-term cultivation regimes
  - depth of ploughing
  - set aside
  - woodland
  - derelict or 'brown field' sites
- Topographic '*drivers*' of change:
  - slope erosion effects
  - water inundation (for ponds/reservoirs, canalisation, etc); susceptibility to

wind erosion

- Vulnerability to unsympathetic land-use (i.e. dumping, quarrying, etc)
- Site requires further action from EH

**CATEGORY 2**

**Sites in established pasture / set aside / woodland / derelict or brown field areas**

- Known/unknown earthwork or structure
- Classification
- Present condition:
  - Stable, as depicted on current OS map
  - damaged
  - substantially damaged
  - destroyed
  - presence/absence of artefact scatter
- Level of change from last record
- Past land use (where known)
- Present land use:
  - permanent pasture
  - improved, in rotational pasture regime
  - set aside
  - woodland
  - derelict or 'brown field' sites
- Topographic '*drivers*' of change:
  - slope erosion effects
  - water inundation (for ponds/reservoirs, canalisation, etc); susceptibility to wind erosion
  - de-watered by under-draining
  - un-grazed, shrub encroachment etc
  - overgrazed
  - marginal encroachment
- Vulnerability to unsympathetic land-use (i.e. dumping, quarrying, etc)
- Site requires further action from EH

**CATEGORY 3**

**Fabric of the Historic Environment: field systems / linear boundaries**

- Known/unknown field system / linear boundaries
- Classification

Prehistoric linear boundaries
Prehistoric field systems
Roman field systems
Roman linear boundaries
Saxon field systems
'Dark Age' linear boundaries
Reused pre-medieval enclosed systems
Medieval enclosed systems
Medieval unenclosed systems, ridge-&-furrow
Medieval linear boundaries
Early enclosure of medieval unenclosed systems
Parliamentary enclosure of unenclosed systems
Parliamentary and other modern enclosure
Water meadows
Not classifiable: form not characteristic / date unknown

- Structural elements: earthen banks; tumbled walls; maintained drystone walls; other wall types; fences; dykes; a combination of boundaries
- Earthwork survival of cultivation remains
- Presence/absence of associated buildings
- Present condition:
  - Stable, as depicted on current OS map
  - damaged
  - substantially damaged
  - destroyed
  - presence/absence of artefact scatter
- Level of change from last record
- Past land use (where known)
- Present land use:
  - permanent pasture
  - improved, in rotational pasture regime
  - new to cultivation
  - under long-term cultivation regimes
  - depth of ploughing
  - set aside
  - woodland
  - derelict or 'brown field' sites
- Topographic '*drivers*' of change:
  - slope erosion effects
  - water inundation (for ponds/reservoirs, canalisation, etc); susceptibility

to wind erosion

de-watered by under-draining

un-grazed, shrub encroachment etc

overgrazed

marginal encroachment

- Vulnerability to unsympathetic land-use (i.e. dumping, quarrying, etc)
- Site requires further action from EH

**CATEGORY 4**

**Fabric of the Historic Environment: linear routeways**

- Known/unknown road

  Classification

  Roman roads

  Medieval roads

  Green roads

  Enclosure roads

  Parliamentary enclosure roads

  Trunk roads

  Turnpikes

  Droveways

  Bridleways

  Canals

- Present condition:

  Stable, as depicted on current OS map

  earthworks present

  structures/buildings survive

  damaged

  substantially damaged

  destroyed

  presence/absence of artefact scatter

- Level of change from last record
- Past use (where known)
- Present use:

  stable, in use

  fossilised piecemeal, e.g. by realignment of road

  closed off and fossilised

  degraded, by loss of characteristic features

  egraded, by superficial impact, scrub invasion, dumping and surface clutter

  destroyed

- Topographic '*drivers*' of change:
    - slope erosion effects
    - water inundation (for ponds/reservoirs, canalisation, etc); susceptibility to wind erosion
    - marginal encroachment
- Vulnerability to unsympathetic land-use (i.e. dumping, quarrying, etc)
- Site requires further action from EH

**CATEGORY 5**

**Fabric of the Historic Environment: settlements**

- Known/unknown settlement
- Classification
- Present condition:
    - earthworks
    - structures
    - stable, as depicted on current OS map
    - damaged
    - substantially damaged
    - destroyed
    - presence/absence of artefact scatter
    - improved, e.g. by by-pass
    - degraded, e.g. by encroachment, modern development or industrial impacts
- Level of change from last record
- Past land use (where known)
- Present land use:
    - permanent pasture
    - improved, in rotational pasture regime
    - set aside
    - woodland
    - derelict or 'brown field' sites
    - Conservation Area or National Park
- Topographic '*drivers*' of change:
    - slope erosion effects
    - water inundation (for ponds/reservoirs, canalisation, etc); susceptibility to wind erosion
    - de-watered by under-draining
    - un-grazed, shrub encroachment etc
    - overgrazed
    - marginal encroachment

- Vulnerability to unsympathetic land-use (i.e. dumping, quarrying, etc)
- Site requires further action from EH

**CATEGORY 6**

**Fabric of the Historic Environment: woodland**

- Known/unknown woodland
- Classification
  - ancient managed woodland
  - modern managed woodland
  - copse
  - covert
  - ornamental woodland
  - woodland belt
- Present condition:
  - stable, as depicted on current OS map
  - earthworks
  - structures
  - evidence of coppicing
  - evidence of pollarding
  - damaged
  - substantially damaged
  - destroyed
  - presence/absence of artefact scatter
  - improved, e.g. by by-pass
  - degraded, e.g. by encroachment, modern development or industrial impacts
- Level of change from last record
- Past land use (where known)
- Present land use:
  - permanent pasture
  - improved, in rotational pasture regime
  - set aside
  - woodland
  - derelict or 'brown field' sites
  - Conservation Area or National Park
- Topographic '*drivers*' of change:
  - slope erosion effects
  - water inundation (for ponds/reservoirs, canalisation, etc); susceptibility to wind erosion
  - de-watered by under-draining

un-grazed, shrub encroachment etc

overgrazed

marginal encroachment

- Vulnerability to unsympathetic land-use (i.e. dumping, quarrying, etc)
- Site requires further action from EH

**CATEGORY 7**

**Fabric of the Historic Environment: gardens and parklands**

- Known/unknown garden/park
- Classification
- Present condition:

  stable, as depicted on current OS map

  earthworks

  ornamental structures

  evidence of coppicing

  evidence of pollarding

  damaged

  substantially damaged

  destroyed

  presence/absence of artefact scatter

  improved, e.g. by by-pass

  degraded, e.g. by encroachment, modern development or industrial impacts
- Level of change from last record
- Past land use (where known)
- Present land use:

  as a public park/garden

  privately owned park/garden

  permanent pasture

  improved, in rotational pasture regime

  set aside

  woodland

  derelict or 'brown field' sites

  Conservation Area or National Park
- Topographic '*drivers*' of change:

  slope erosion effects

  water inundation (for ponds/reservoirs, canalisation, etc); susceptibility to wind erosion

  de-watered by under-draining

  un-grazed, shrub encroachment etc

overgrazed

marginal encroachment

- Vulnerability to unsympathetic land-use (i.e. dumping, quarrying, etc)
- Site requires further action from EH

CATEGORY 8

**Fabric of the Historic Environment: military installations**

- Known/unknown military site
- Classification
- Present condition:

  stable, as depicted on current OS map

  earthworks

  structures

  damaged

  substantially damaged

  destroyed

  presence/absence of artefact scatter

  improved, e.g. by by-pass

  degraded, e.g. by encroachment, modern development or industrial impacts
- Level of change from last record
- Previous land use (where known)
- Present land use:

  site remains in military use

  site abandoned, no longer having a military use

  site under redevelopment

  site returned to farmland

  derelict or 'brown field' sites

  Conservation Area or National Park
- Topographic '*drivers*' of change:

  slope erosion effects

  water inundation (for ponds/reservoirs, canalisation, etc); susceptibility to wind erosion

  de-watered by under-draining

  un-grazed, shrub encroachment etc

  overgrazed

  marginal encroachment
- Vulnerability to unsympathetic land-use (i.e. dumping, quarrying, etc)
- Site requires further action from EH

**CATEGORY 9**

**Fabric of the Historic Environment: industrial sites**

- Known/unknown industrial site
- Classification
- Present condition:
    - stable, as depicted on current OS map
    - earthworks
    - buildings and/or structures
    - presence/absence of power source (water/steam/electric)
    - presence/absence of waste dumps
    - damaged
    - substantially damaged
    - destroyed
    - presence/absence of artefact scatter
    - improved, e.g. by by-pass
    - degraded, e.g. by encroachment, modern development or industrial impacts
- Level of change from last record
- Past land use (where known)
- Present land use:
    - site continues in an industrial capacity
    - derelict or 'brown field' site
    - Conservation Area or National Park
    - permanent pasture
    - improved, in rotational pasture regime
    - set aside
    - as a public park/garden
    - privately owned park/garden
    - woodland
- Topographic '*drivers*' of change:
    - slope erosion effects
    - water inundation (for ponds/reservoirs, canalisation, etc); susceptibility to wind erosion
    - de-watered by under-draining
    - un-grazed, shrub encroachment etc
    - overgrazed
    - marginal encroachment
- Vulnerability to unsympathetic land-use (i.e. dumping, quarrying, etc)
- Site requires further action from EH

CATEGORY 10

**Fabric of the Historic Environment: water supply (ponds / wells / reservoirs / troughs / fountains / cisterns)**

- Known/unknown water holding site
- Classification
- Present condition:
  - stable, as depicted on current OS map
  - earthworks
  - buildings and/or structures
  - presence/absence of power source (water/steam/electric)
  - damaged
  - substantially damaged
  - destroyed
  - presence/absence of artefact scatter
  - improved, e.g. by by-pass
  - degraded, e.g. by encroachment, modern development or industrial impacts
- Level of change from last record
- Past land use (where known)
- Present land use:
  - site continues in use
  - site abandoned
  - Conservation Area or National Park
  - permanent pasture
  - improved, in rotational pasture regime
  - set aside
  - as a public park/garden
  - privately owned park/garden
  - woodland
- Topographic '*drivers*' of change:
  - slope erosion effects
  - water inundation (for ponds/reservoirs, canalisation, etc); susceptibility to wind erosion
  - de-watered by under-draining
  - un-grazed, shrub encroachment etc
  - overgrazed
  - marginal encroachment
- Vulnerability to unsympathetic land-use (i.e. dumping, quarrying, etc)
- Site requires further action from EH

**CATEGORY 11**

**Fabric of the Historic Environment: marshes, saltings, fens**

- Known/unknown site
- Classification
- Present condition:
    - stable, as depicted on current OS map
    - earthworks
    - buildings and/or structures
    - presence/absence of power source (water/steam/electric)
    - damaged
    - substantially damaged
    - destroyed
    - presence/absence of artefact scatter
    - improved, e.g. by by-pass
    - degraded, e.g. by encroachment, modern development or industrial impacts
- Level of change from last record
- Past land use (where known)
- Present land use:
    - site continues in traditional use
    - site abandoned (e.g. 'managed retreat')
    - Conservation Area or National Park
    - permanent pasture
    - improved, in rotational pasture regime
    - set aside
    - as a public park/garden
    - privately owned park/garden
    - woodland
- Topographic '*drivers*' of change:
    - slope erosion effects
    - water inundation (for ponds/reservoirs, canalisation, etc); susceptibility to wind erosion
    - de-watered by under-draining
    - un-grazed, shrub encroachment etc
    - overgrazed
    - marginal encroachment
- Vulnerability to unsympathetic land-use (i.e. dumping, quarrying, etc)
- Site requires further action from EH

**CATEGORY 12**

**Fabric of the Historic Environment: buildings**

Some changes to the built environment are drastic and readily able to be measured. The most obvious is the total demolition of a building; others include substantial demolition and extension. At a slightly lower level is conversion, reflecting change not only to the fabric, but also to function; the latter provides some index of economic and social change as well as of change to the built environment itself. Beyond such major changes, there are, however, a host of other kinds of alteration which may be made to buildings – including some types of restoration – which can have a substantial impact on the survival of historic fabric and on the historical and aesthetic character of both individual structures and of the landscapes of which they form part. Such changes can be reflected many different ways, and it would be impossible to seek to measure them all. It is therefore proposed that data should be gathered to provide information concerning three main types of change.

- Radical change to the shape or condition of the envelope. This category is largely self-explanatory and relates to demolition of the historic building (in whole or in part), or extension to it (ranging from a porch to a new wing), or its falling into ruin or being restored.

- Change of use. Changes of use often involve significant alteration to historic buildings, even while falling short of Radical change to the shape or condition of the envelope, and may affect the historical, aesthetic and landscape character and value of the building and the area in which it stands.

- Restoration, renewal and repair. Both the restoration and repair of historic buildings can have a major impact upon their historical, aesthetic and landscape character, particularly by using materials that differ from those employed in the

  original structure. Changes of this nature may be influenced by various factors: the replacement of windows may reflect a concern with comfort and energy saving as much as the need for repair *per se*, and the materials used for the replacement frames may relate to cost and to the availability of both traditional materials and appropriately skilled labour; changes to roofing materials may relate particularly closely to questions of cost and availability of materials and labour. Indicators of change relating to these aspects of the built environment may, therefore, not only provide data concerning change itself, but also clues as to the causes of (and therefore possible remedies for) deleterious change.

Data

In order to assess the changes outlined above, it is proposed that data should be gathered under the following headings. In order that statistics can be extracted consistently, data must be gathered within a restricted range of possibilities (listed in brackets).

- Current Use (One or more of: Agricultural, Domestic, Industrial, Institutional/ Public, Religious, Vacant/None [includes ruins], Other, Uncertain/Unknown)
- Physical Status (To be measured against the extent noted in the initial, base-line, survey. One or more of: Complete, Partially Demolished, Fully Demolished, Extended, Ruined, Uncertain/Unknown. In addition: Number of Storeys [storeys visible when viewing main elevation; attics are counted as half storeys])
- Walling Material of Main Elevation (One of more of: Brick, Concrete, Metal, Mock stone, Mock timber-framing, Mud, Pebbledash or other textured render, Smooth render, Slate-hung, Stone, Surface-treated brick [e.g. painted; limewashed], Surface-treated stone [e.g. painted, limewashed], Tile-hung, Timber Clad, Timber-framed, Other, Uncertain/Unknown)
- Material of Roof covering visible when viewing Main Elevation (One or more of: Concrete, Felt [including felt and gravel], Metal, Slate, Stone, Thatch, Tile – traditional (vernacular), Tile – modern, Other, Uncertain/Unknown)
- Windows in Main Elevation (Total number of openings, and number with frames of each of the following materials: Metal, Plastic, Wood, Other, Uncertain/ Unknown)
- Roof Lights visible when viewing Main Elevation (Number of roof lights)
- Aerials and Antennae visible when viewing Main Elevation (Numbers of traditional antennae and of dish-type aerials)

Additional Data required for the Base-line Survey only
In order to ensure consistency between Surveys, the first, base-line, survey needs to record a few additional items of data, primarily connected with the identification of the buildings selected.

- Extent of unit of record
- Original use (One of: Agricultural, Domestic, Industrial, Institutional/Public, Religious, Other, Uncertain/Unknown)
- Elevation treated as Main Elevation

**Scope of Survey**
There is no universally accepted definition of the scope of the historic environment. It is therefore intended to take a pragmatic view, and to include in the definition all surviving buildings shown on the Second Edition of the 1:2500 Ordnance Survey Maps (produced between the 1890s and 1914) covering the relevant kilometre squares.

In order to maintain a sense of proportion, it is further intended that a maximum of twenty such 'buildings' should be included for any one kilometre square (subject to the provision discussed under *Unit of Record*, below, where the relationship between 'buildings' and Units of Record is also

established). Many such squares will contain fewer than twenty 'historic buildings', and in such cases all will be assessed. Where there are more than twenty such 'buildings', a selection will be made according to the following broad method:

- The number of extant 'historic buildings' will be assessed by comparing the Second Edition with the latest available 1:2500 map, upon which candidate 'buildings' will be circled in pencil.
- The total number of such 'buildings' for each kilometre square will be noted.
- If there are between twenty and twenty-nine candidate 'buildings', the selection of twenty will be made on pragmatic grounds by the fieldworkers.
- If there are thirty or more candidate 'buildings', 100-metre wide North-South strips will be high-lighted on the modern map:
  - 'Buildings' will be selected by counting them from the North of the West strip, from the South of the second strip, the North of the third, and so on, and applying the relevant proportionate formula: for example, if there are forty candidate 'buildings', alternate ones will be selected; there are thirty, every third one is omitted; and so on. Where the numbers are less neat, the simple statistical method breaks down, but application of the same broad principles tempered by pragmatism will yield the necessary sample.
  - A 'building' is deemed to fall into the square (or strip) in which its North-West corner lies.

This process of selection will only form part of the initial, base-line survey. Once a 'building' has been finally selected by the fieldworkers during the course of the base-line survey, its precise outline must be shaded in red on the modern map, and accorded a number within the kilometre square, against which data is recorded. This will not only allow those conducting the period re-surveys to identify the 'building' with certainty, but will also allow them to assess whether there has been *radical change to the shape of the envelope.*

Unit of Record

This section falls into two categories, relating to the definition of the primary Unit of Record and to that of the Main Elevation.

Primary Unit of Record. There is no universally-applicable method whereby the primary Unit of Record can be established. For example, in relation to domestic buildings, it could be an individual house, a semi-detached pair, or a complete terrace, while in relation to an agricultural or industrial complex, it could be a detached building, a functional unit, or an agglomeration of attached or detached buildings. There is also the question of whether the associated house is part of the same unit of record as the other buildings.

In order to ensure consistency of approach across the country and between fieldworkers, the following rules should be observed.

- In respect of *domestic buildings*, the unit of record is a single habitation – a detached house, one dwelling in a semi-detached pair or in a terrace.
- In respect of *agricultural or industrial complexes*, the unit of record is the complex, whether or not the buildings are attached, provided that they are in reasonable proximity to each other (in other words, detached barn, granary and stable related to the same yard or set of contiguous yards form a single unit of record, while separated complexes do not).
- For *other categories* of building similar principles can apply: for example, most *religious buildings* can be treated in a similar fashion to domestic ones, while *institutional buildings* can be assessed by whichever method suits their individual form.

A particular set of issues surrounds sites where a house is associated with an agricultural or industrial complex, of which it may either form an attached or contiguous element. Strict application of the conventions outlined above would have the potential

- for either the house or the rest of the complex to be ignored (if there were more than twenty 'historic buildings' in the kilometre square), which does violence to historical intelligence; or
- for the two to be subsumed into a single Unit of Record, even though experience shows that they may be subject to radically different patterns of activity in relation to all the Indicators of Change.

In order to overcome these issues, the house and the complex should be treated as separate Units of Record, BUT, wherever one is selected, its associated element should also be included. In such circumstances, and where there are more than twenty 'historic buildings' in a kilometre square, the total number of Units of Record should be increased by one for each associated pair included in the survey: for example, if there are thirty 'historic buildings' in a given square, and three of the twenty selected have a closely associated element, the number of Units of Record would be increased from twenty to twenty-three.

Main elevation. Definition of the Main Elevation of a single building is not usually problematic, as it will be the elevation that contains the principal entrance - the front door of a house, the main (usually south) elevation of a parish church. For complexes, definition is more difficult, and should be conducted according to the following rules.

- For complexes of *attached vernacular buildings*, such as a Georgian-type U-

shaped farm, where the main approach is to the 'outside' of the linking range, the Main Elevation is considered to be the 'outside' of the three (or more) bounding ranges: it would therefore typically consist of three elements, which would be treated as one, but with the possibility of entering multiple indications of *Current Use, Walling Material* and *Material of Roof Covering.*

- For complexes of *attached vernacular buildings*, where the main approach is to the 'inside' of the complex, such as an L-shaped Cheshire farm, the Main Elevation is considered to consist of the 'inside' faces of the bounding ranges: it would therefore typically consist of two or three elements, which would be treated as one, but with the possibility of entering multiple indications of *Current Use, Walling Material* and *Material of Roof Covering.*
- For complexes of *detached vernacular buildings*, the same system is to be applied. Where the individual structures do not form a regular plan, fieldworkers will take a pragmatic view on what constitutes the 'front' of each building, and will aggregate those fronts into a single Main Elevation, and will be able to enter multiple indications of *Current Use*, *Walling Material* and *Material of Roof Covering*, as above.
- For complexes of 'polite' buildings, the main elevation of the principal building should be selected. There are likely to be very few of these in the kilometre squares, and each can be treated on its own merits.

This process of selection will only form part of the initial, base-line survey. Once the Main Elevation has been selected by the fieldworkers during the course of the base-line survey, its precise outline must be marked on the modern map by a green line parallel to the relevant wall(s). This will allow those conducting the period re-surveys to identify the Main Elevation with certainty.

# APPENDIX 2: LIST OF SAMPLE SQUARES FOR THE EH PILOT PROJECT 2002-3

| County | CS # | NGR Easting | NGR Northing |
|---|---|---|---|
| Avon | 179 | | |
| Cambridgeshire | 366 | | |
| Cleveland | 713 | | |
| Cornwall | 6 | | |
| | 13 | | |
| | 15 | | |
| Cumbria | 703 | | |
| | 705 | | |
| Derbyshire | 548 | | |
| Devon | 35 | | |
| Dorset | 55 | | |
| Essex | 279 | | |
| Hereford & Worcs | 385 | | |
| Kent | 195 | | |
| Lancashire | 617 | | |
| | 642 | | |
| Greater London | 189 | | |
| Norfolk | 480 | | |
| | 482 | | |
| | 513 | | |
| Northamptonshire | 391 | | |
| Nottinghamshire | 552 | | |
| Oxfordshire | 242 | | |
| Suffolk | 398 | | |
| West Sussex | 91 | | |
| North Yorkshire | 678 | | |

# APPENDIX 3: DRAFT ARCHAEOLOGICAL RECORD FORM

| | | | | |
|---|---|---|---|---|
| Event name:<br>**COUNTRYSIDE SURVEY: EH Pilot Project 2002-3** | | | CS square #:<br>Record sheet #: | |
| Event UID: | NAR #: | | Monument name: | |
| NGR: | | | | |
| County: | District: | | Parish: | |
| Event type: Archaeological Field Investigation [Level 1] | Start date: | | End date: | |
| Category(ies) | | | | |
| Site classification & date(s) | Date: | | | |
| | Type: | | | |
| Present condition | | | | |
| Level of change from last record | OS Map Edn: | | Other: | |
| Past land-use | | | | |
| Present land-use | | | | |
| Topographic 'drivers' of change | | | | |
| Identify current threat(s) | | | | |
| Quantify level of threat | High | | Medium | Low |

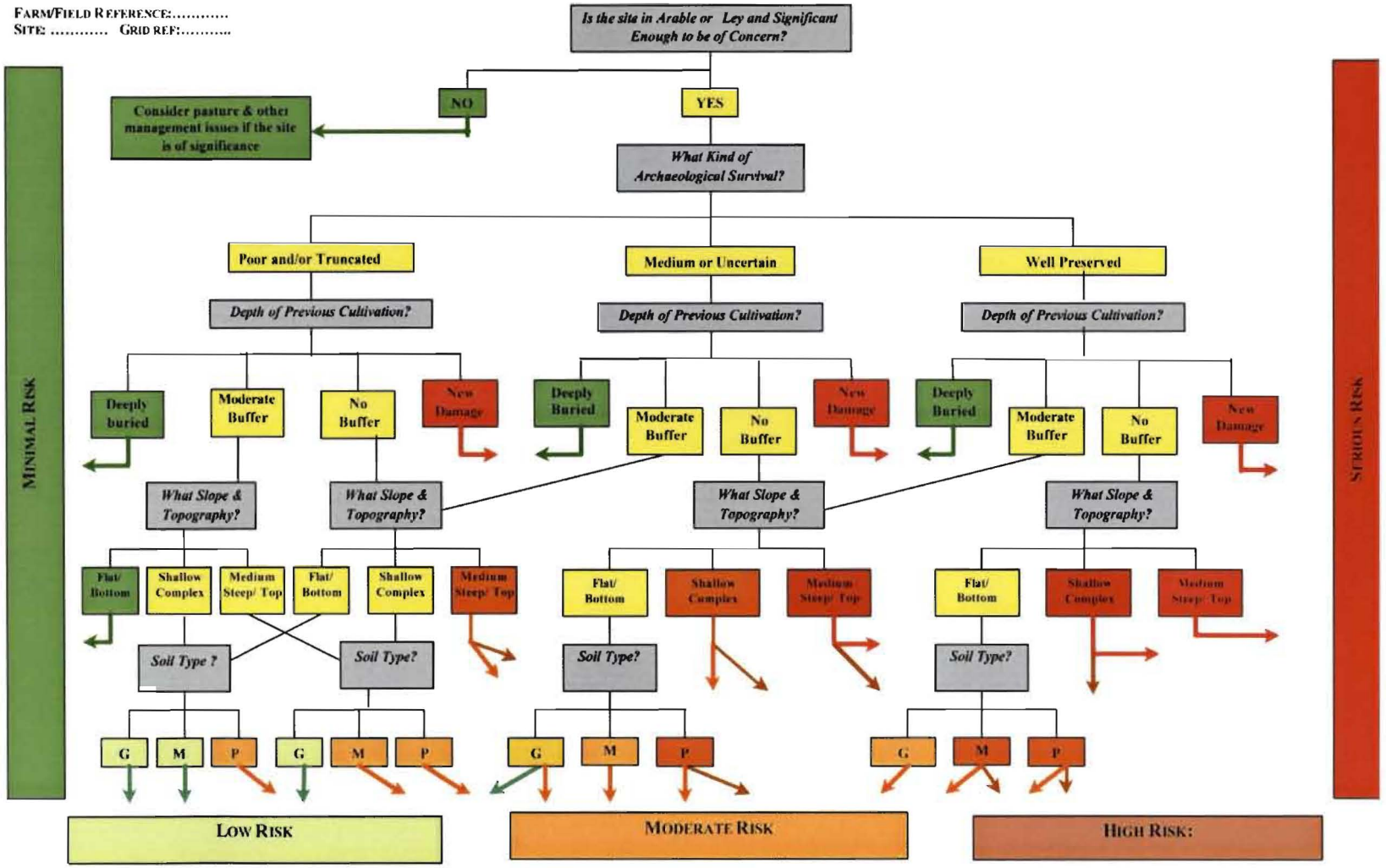
| | |
|---|---|
| Potential threats | |
| | |
| | |
| | |
| Site requires further action from EH (tick box) | |
| Local caseworker/Inspector notified | Y N |

## APPENDIX 4: THE FLOW DIAGRAM METHOD

This Method is based on a decision-making tree, presented as a flow diagram (see following page). The outcomes of the diagram (boxes on the left, right or bottom of the diagram) are in effect a range of degrees of risk posed to the site from cultivation. Conclusions can be drawn at various stages: those sites where the evidence is less clear-cut, need the greatest number of assessment stages.

**Flow Diagram Method for Predicting Risk to Archaeological Sites Through Cultivation**

FARM/FIELD REFERENCE:.....
SITE: ..... GRID REF:.....



**Stage by stage guide to using the Flow Diagram Method**

**Stage A: Is the site in arable or temporary ley and significant enough to be of concern?**

This stage determines whether the assessment process is applied at all. If the answer is "No" (e.g. if it is under permanent grass or the archaeology is not considered sufficiently significant) the site (or this part of it) is not appropriate for this assessment. If the answer is "Yes": the site (or this part of it) is appropriate for this assessment therefore move onto ***Stage B.***

**Stage B: What is the likely quality of archaeological survival?**

**The likely state of survival and preservation is a key factor in determining likely vulnerability to damage. The definitions of these choices are:**

- **Poor/Truncated** - (Low/Moderate Risk)
  - where only deep, truncated negative features survive
  - or where surface scatters are unlikely to contain significant evidence which would not be available from underlying archaeology
- **Medium or uncertain** - (Moderate/High Risk)
  - where very incomplete and damaged upstanding archaeology or incomplete layers of vertical stratigraphy, e.g. occupation horizons/ surfaces survive
  - where shallow negative features are present (as well as deeper ones), or where surface scatters are likely to represent evidence not reflected in underlying archaeology
  - where survival or preservation is unknown
- **Well preserved** - (High Risk)
  - where there is upstanding archaeology
  - where there is survival of structural remains
  - where 'soft' layers of vertical stratigraphy exist (occupation horizons/ surfaces etc) and/or where there are shallow negative features with important contents (e.g. graves)

**In reality, if little is known about the site, then 'Medium or Uncertain' will usually have to be applied as a form of default score; however, if there are good reasons to suspect potential for good preservation then well-preserved should be used.**

**The following factors will be useful in making assumptions about possible or probable survival:**

- Whether the site is visible as an earthwork
- Intrinsic character of the site and its likely content
- Source evidence and topography (previous excavation, air photography, metal detecting, field walking or survey; e.g. sites known from cropmarks or well-spread soil-marks on flat or convex ground or on upper slopes, are likely to be truncated)
- Surface evidence of walls, flooring materials, dark artefact-rich spreads of soil or friable remains on the surface etc

**Stage C: What is the depth (or extent) of previous cultivation relative to the archaeology?**

*Issues*

**This factor is critical to the assessment process because of the two extremes. A site that is deeply buried beneath alluvium or colluvium, and not subject to disturbance through subsoiling and drainage, may be quite safe from damage. At the other end of the spectrum, a previously undisturbed site being damaged for the first time, or uncultivated parts being encroached upon by new damage, is unlikely to be capable of sustaining further arable use without the occurrence of significant further damage. Both current threats from agriculture and future threats should be assessed if relevant.**

**Between these two extremes there are conditions where sites may or may not be relatively protected from damage, depending on the presence or absence of a "buffer" between the undisturbed archaeology and the present ploughsoil. Spatially, this could be an uncultivated area round the perimeter of an earthwork, but is more likely to occur as a vertical buffer zone of previously disturbed soil separating the base of the present cultivation horizon from the top of undisturbed archaeology. The latter is difficult to judge without direct evidence.**

**The definitions of these choices are:**

- **Deeply buried** - Significant undisturbed buffer of old colluvium or alluvium (*c* 0.20-0.75m) is likely to be present between the base of modern ploughsoil and the top of archaeology, *and* there is no danger of damage through subsoiling or drainage (Minimal Risk)
- **Moderate buffer** - To be used where a buffer (*c 0.*10-0.20m) may reasonably be expected but where you would not be confident enough to assign the site to the deeply buried category– e.g. this could apply at the base of a slope or where old ploughsoil may be expected or where alluvium is likely to be present (Moderate Risk)
- **No Buffer/Limited Buffer** - Present cultivation likely to be at interface with archaeology but with no obvious evidence of new disturbance (Medium Risk)
- **No Buffer/New damage** - Clear evidence of new disturbance from nature of

surface finds/freshly disturbed subsoil, or other evidence of new disturbance. Also includes sites which are being cultivated for the first time or where there is new encroachment onto edges of an archaeological monument, or inducing erosion from it (High Risk).

**Key factors that need to be considered are:**

- Whether there is clear evidence of recent new ploughing of a previously unploughed site, or on-going encroachment onto unploughed areas (e.g. "step" lynchetting effects; erosion or gullying of material from within unploughed areas).
- Where surface indications suggest ongoing disturbance, implied by relatively fresh material being ploughed up - especially evidence of fresh subsoil, plaster or other artefacts that cannot survive long in the ploughsoil. Unabraded or freshly broken pottery/metalwork or the presence of sizeable pieces of low-fired pottery may also suggest ongoing damage. Lumps of freshly disturbed subsoil may also indicate recent disturbance
- Geomorphology (alluvium, colluvium deposits and their likely age)
- Topographical position (e.g. tops of slopes are less likely to have a buffer zone, whilst the bottom of slopes are more likely to have one - possibly to the extent of being deeply buried)
- Evidence from previous fieldwork (especially if recent)
- Evidence of previous and current cultivation/cropping practice e.g. a major switch from traditional ploughing to minimum cultivation techniques, or abandonment of previously grown crops that require deep cultivation may both indicate the likely existence of a buffer zone. The continued practice of deep cultivation for root crops, continued use of traditional mouldboard ploughing, subsoiling etc would suggest that a significant buffer zone is rather unlikely.

*Outcomes for possible management prescriptions*

**Sites considered sufficiently deeply buried to be safe from damage can be assigned to the *No Prescriptive Management* category at this stage. Those subject to new damage and thus at severe risk can be assigned to the High Risk category requiring management considerations reflecting the appropriate circumstances.**

**Other cases need to go forward to *Stage C* within the relevant category of whether there is likely to be a 'moderate buffer' or 'no buffer/limited buffer' between the top of the archaeology and the base of current cultivation soils.**

**Stage C: How are factors of slope likely to be influencing the likelihood of damage?**

*Issues*

**The position of archaeological sites in relation to slopes is a factor that can significantly effect the likelihood and rate of damage.**

**The definitions of these choices are:**

- **Medium/Steep/Top** – Sites that fall on the top of a slope or where the slope is steep or moderately steep (High Risk)
- **Shallow or Complex** – Variable but moderate or shallow slopes (Medium Risk)
- **Flat/Bottom** – Flat ground or at the bottom or lower extent of a slope (this could also be the lower part of a field where it meets a field boundary, i.e. anywhere where soil has a chance to build up) (Low Risk)

*Assessment considerations*

**Damage is especially likely to occur at the top end of fields on slopes and/or where soil is moved away from negative lynchets. It is least likely to occur where soil is accumulating, at the foot of fields on slopes (or at the foot of the slopes themselves).**

**It may be difficult to precisely judge what constitutes a steep/moderate/shallow slope. Rates of erosion differ quite significantly, depending on a range of factors, of which key considerations are usually soil type as well as the degree of slope involved. In general however, if a slope is less than 4 degrees (this should be obvious from a 1: 10,000 map) then it should be classified as a shallow slope.**

**Key factors that need to be considered are:**

- Movement of soil down slope tends gradually to thin the topsoil at the top or mid slope, thereby tending to allow cultivation to bite into the subsoil (and any archaeology which may be present) even though the relative depth of cultivation below the soil surface remains the same.
- With compound slopes, archaeological sites on convex ground are likely to be more at risk than sites in concave locations.
- Most cultivation equipment has a planing effect, tending to flatten off undulations in the ground. Where these are small-scale, as with ploughed-over archaeological earthworks, the effect may be particularly damaging.
- The flat/bottom category factor should also be used for the lower regions of any slopes

**For sites not leaving the loop at this stage go onto to the 'soil type' categories** – *Stage D.*

**Stage D: How are factors of soil type likely to influence the likelihood of damage?**

surface finds/freshly disturbed subsoil, or other evidence of new disturbance. Also includes sites which are being cultivated for the first time or where there is new encroachment onto edges of an archaeological monument, or inducing erosion from it (High Risk).

**Key factors that need to be considered are:**

- Whether there is clear evidence of recent new ploughing of a previously unploughed site, or on-going encroachment onto unploughed areas (e.g. "step" lynchetting effects; erosion or gullying of material from within unploughed areas).
- Where surface indications suggest ongoing disturbance, implied by relatively fresh material being ploughed up - especially evidence of fresh subsoil, plaster or other artefacts that cannot survive long in the ploughsoil. Unabraded or freshly broken pottery/metalwork or the presence of sizeable pieces of low-fired pottery may also suggest ongoing damage. Lumps of freshly disturbed subsoil may also indicate recent disturbance
- Geomorphology (alluvium, colluvium deposits and their likely age)
- Topographical position (e.g. tops of slopes are less likely to have a buffer zone, whilst the bottom of slopes are more likely to have one - possibly to the extent of being deeply buried)
- Evidence from previous fieldwork (especially if recent)
- Evidence of previous and current cultivation/cropping practice e.g. a major switch from traditional ploughing to minimum cultivation techniques, or abandonment of previously grown crops that require deep cultivation may both indicate the likely existence of a buffer zone. The continued practice of deep cultivation for root crops, continued use of traditional mouldboard ploughing, subsoiling etc would suggest that a significant buffer zone is rather unlikely.

*Outcomes for possible management prescriptions*

**Sites considered sufficiently deeply buried to be safe from damage can be assigned to the *No Prescriptive Management* category at this stage. Those subject to new damage and thus at severe risk can be assigned to the High Risk category requiring management considerations reflecting the appropriate circumstances.**

**Other cases need to go forward to *Stage C* within the relevant category of whether there is likely to be a 'moderate buffer' or 'no buffer/limited buffer' between the top of the archaeology and the base of current cultivation soils.**

**Stage C: How are factors of slope likely to be influencing the likelihood of damage?**

*Issues*

**The position of archaeological sites in relation to slopes is a factor that can significantly effect the likelihood and rate of damage.**

**The definitions of these choices are:**

- **Medium/Steep/Top** – Sites that fall on the top of a slope or where the slope is steep or moderately steep (High Risk)
- **Shallow or Complex** – Variable but moderate or shallow slopes (Medium Risk)
- **Flat/Bottom** – Flat ground or at the bottom or lower extent of a slope (this could also be the lower part of a field where it meets a field boundary, i.e. anywhere where soil has a chance to build up) (Low Risk)

*Assessment considerations*

**Damage is especially likely to occur at the top end of fields on slopes and/or where soil is moved away from negative lynchets. It is least likely to occur where soil is accumulating, at the foot of fields on slopes (or at the foot of the slopes themselves).**

**It may be difficult to precisely judge what constitutes a steep/moderate/shallow slope. Rates of erosion differ quite significantly, depending on a range of factors, of which key considerations are usually soil type as well as the degree of slope involved. In general however, if a slope is less than 4 degrees (this should be obvious from a 1: 10,000 map) then it should be classified as a shallow slope.**

**Key factors that need to be considered are:**

- Movement of soil down slope tends gradually to thin the topsoil at the top or mid slope, thereby tending to allow cultivation to bite into the subsoil (and any archaeology which may be present) even though the relative depth of cultivation below the soil surface remains the same.
- With compound slopes, archaeological sites on convex ground are likely to be more at risk than sites in concave locations.
- Most cultivation equipment has a planing effect, tending to flatten off undulations in the ground. Where these are small-scale, as with ploughed-over archaeological earthworks, the effect may be particularly damaging.
- The flat/bottom category factor should also be used for the lower regions of any slopes

**For sites not leaving the loop at this stage go onto to the 'soil type' categories** – *Stage D.*

**Stage D: How are factors of soil type likely to influence the likelihood of damage?**

*Issues*

**Soil type is a significant factor in influencing erosion, cropping potential and drainage needs, including the risk from panning (which may lead to subsoiling or other forms of pan-busting).**

**The definitions of these choices are:**

- **G = Good** - Medium, well drained, well structured soils where deep cultivation is not necessary (Low Risk)
- **M= Medium** - Medium soils with some difficulties (e.g. some tendency to panning, requiring drainage etc) (Moderate Risk)
- **P = Poor** - Light soils subject to rapid wind or water erosion; peat soil subject to shrinkage; heavy clay soils where drainage is necessary and deep cultivation is common (Moderate to High Risk)

*Assessment considerations*

**The main considerations which need to be assessed here relate to the light and heavy soils where the risk of damage is greatest.**

**Key factors that need to be considered are:**

- Archaeological sites on light soils tend to be at a moderate to high risk of damage because of the effects of water and wind erosion (or both combined), especially where coupled with deep cultivation and/or autumn sowing.
- Archaeological sites on heavy soils requiring drainage, pan-busting and deep cultivation, can also be considered to be at a moderate to high risk of damage.

*Outcomes for possible management prescriptions*

**This stage is the final stage of assessment – the results of this will indicate the level of Risk which may be most appropriate for those sites still within the loop. This is not prescriptive but indicates a position from which to discuss options to suit the farmer's circumstances (type of business, cropping and rotations, technical cultivation capabilities).**

# BUILDINGS AND RUINED BUILDINGS: PROPOSALS FOR PILOT (SAMPLE) PROJECT, 2002-3 *DRAFT 1*

*Paul Barnwell*

**Purpose of the Pilot Project**

The purpose of the Pilot Project is to test the feasibility of creating a heritage layer for the quinquennial Countryside Survey. The central objective is to create a series of indicators for changes to the historic environment as they occur between surveys. The Pilot Project, to be conducted in 2002-3, needs to establish three things:

- The indicators of change which will be used in all future surveys after the initial one (which will establish a baseline against which that change will be measured).
- A method for compiling the data required to produce the indicators.
- A method for creating the base-line data in the initial survey.

The Pilot Project must also ensure not only that the indicators and methods identified are robust and meaningful, but also that they are proportionate and feasible; a significant element is therefore to establish the resources required to conduct both the full base-line survey and the periodic re-surveys.

**Background**

The Countryside Survey has been established for over two decades, and has evolved various methods of sampling and of procedure, some of which must be followed by the heritage layer. Chief amongst them is the fact that the unit of record is a pre-determined set of 273 one-kilometre grid squares distributed across the country in such a way as to reflect different kinds of landscape and habitat.

The Pilot Project will be conducted on a representative 10% sample of the designated squares, which will be agreed between Architectural Investigation, Archaeological Survey and Investigation and other relevant sections of English Heritage.

The Indicators of Change must be selected in order to facilitate the measurement of significant changes to the built environment. They are not intended to provide a record of that environment or its condition *per se*, and will be used to produce high-level statistics, not records to enhance the NMR, HERs or other heritage archives. Since the methodology and the nature of the base-line data flow exclusively from the desired Indicators of Change, the Indicators and types of data to be collected are discussed first.

**Indicators of Change**

Some changes to the built environment are drastic and readily able to be measured. The most obvious is the total demolition of a building; others include substantial demolition and extension. At a slightly lower level is conversion, reflecting change not only to the fabric, but also to function; the latter provides some index of economic and social change as well as of change to the built environment itself. Beyond such major changes, there are, however, a host of other kinds of alteration which may be made to buildings – including some types of restoration – which can have a substantial impact on the survival of historic fabric and on the historical and aesthetic character of both individual structures and of the landscapes of which they form part. Such changes can be reflected many different ways, and it would be impossible to seek to measure them all. It is therefore proposed that data should be gathered to provide information concerning three main types of change.

- **Radical change to the shape or condition of the envelope. This category is largely self-explanatory and relates to demolition of the historic building (in whole or in part), or extension to it (ranging from a porch to a new wing), or its falling into ruin or being restored.**

- Change of use. Changes of use often involve significant alteration to historic buildings, even while falling short of Radical change to the shape or condition of the envelope, and may affect the historical, aesthetic and landscape character and value of the building and the area in which it stands.

- Restoration, renewal and repair. Both the restoration and repair of historic buildings can have a major impact upon their historical, aesthetic and landscape character, particularly by using materials which differ from those employed in the original structure. Changes of this nature may be influenced by various factors: the replacement of windows may reflect a concern with comfort and energy saving as much as the need for repair *per se*, and the materials used for the replacement frames may relate to cost and to the availability of both traditional materials and appropriately skilled labour; changes to roofing materials may relate particularly closely to questions of cost and availability of materials and labour. Indicators of change relating to these aspects of the built environment may, therefore, not only provide data concerning change itself, but also clues as to the causes of (and therefore possible remedies for) deleterious change.

**Data**

In order to assess the changes outlined above, it is proposed that data should be gathered under the following headings. In order that statistics can be extracted consistently, data must be gathered within a restricted range of possibilities (listed in brackets).

- Current Use (One or more of: Agricultural, Domestic, Industrial, Institutional/ Public, Religious, Vacant/None [includes ruins], Other, Uncertain/Unknown)
- Physical Status (To be measured against the extent noted in the initial, base-line, survey. One or more of: Complete, Partially Demolished, Fully Demolished, Extended, Ruined, Uncertain/Unknown. In addition: Number of Storeys [storeys visible when viewing main elevation; attics are counted as half storeys])
- Walling Material of Main Elevation (One of more of: Brick, Concrete, Metal, Mock stone, Mock timber-framing, Mud, Pebbledash or other textured render, Smooth render, Slate-hung, Stone, Surface-treated brick [e.g. painted; limewashed], Surface-treated stone [e.g. painted, limewashed], Tile-hung, Timber Clad, Timber-framed, Other, Uncertain/Unknown)
- Material of Roof covering visible when viewing Main Elevation (One or more of: Concrete, Felt [including felt and gravel], Metal, Slate, Stone, Thatch, Tile – traditional (vernacular), Tile – modern, Other, Uncertain/Unknown)
- **Windows in Main Elevation (Total number of openings, and number with frames of each of the following materials: Metal, Plastic, Wood, Other, Uncertain/Unknown)**
- Roof Lights visible when viewing Main Elevation (Number of roof lights)
- Aerials and Antennae visible when viewing Main Elevation (Numbers of traditional antennae and of dish-type aerials)

**Additional Data required for the Base-line Survey only**

In order to ensure consistency between Surveys, the first, base-line, survey needs to record a few additional items of data, primarily connected with the identification of the buildings selected.

- Extent of unit of record
- Original use (One of: Agricultural, Domestic, Industrial, Institutional/Public, Religious, Other, Uncertain/Unknown)
- Elevation treated as Main Elevation

**Scope of Survey**

There is no universally accepted definition of the scope of the historic environment. It is therefore intended to take a pragmatic view, and to include in the definition all surviving buildings shown on the Second Edition of the 1:2500 Ordnance Survey Maps (produced between the 1890s and 1914) covering the relevant kilometre squares.

In order to maintain a sense of proportion, it is further intended that a maximum of twenty such 'buildings' should be included for any one kilometre square (subject to the provision discussed under *Unit of Record*, below, where the relationship between 'buildings' and Units of Record is also established). Many such squares will contain fewer than twenty 'historic buildings', and in such cases all will be assessed. Where there are more than twenty such 'buildings', a selection will be

made according to the following broad method:

- The number of extant 'historic buildings' will be assessed by comparing the Second Edition with the latest available 1:2500 map, upon which candidate 'buildings' will be circled in pencil.
- The total number of such 'buildings' for each kilometre square will be noted.
- If there are between twenty and twenty-nine candidate 'buildings', the selection of twenty will be made on pragmatic grounds by the fieldworkers.
- If there are thirty or more candidate 'buildings', 100-metre wide North-South strips will be high-lighted on the modern map:
  - 'Buildings' will be selected by counting them from the North of the West strip, from the South of the second strip, the North of the third, and so on, and applying the relevant proportionate formula: for example, if there are forty candidate 'buildings', alternate ones will be selected; if there are thirty, every third one is omitted; and so on. Where the numbers are less neat, the simple statistical method breaks down, but application of the same broad principles tempered by pragmatism will yield the necessary sample.
  - A 'building' is deemed to fall into the square (or strip) in which its North-West corner lies.

This process of selection will only form part of the initial, base-line survey. Once a 'building' has been finally selected by the fieldworkers during the course of the base-line survey, its precise outline must be shaded in red on the modern map, and accorded a number within the kilometre square, against which data is recorded. This will not only allow those conducting the period re-surveys to identify the 'building' with certainty, but will also allow them to assess whether there has been *Radical change to the shape of the envelope*.

***Unit of Record***

This section falls into two categories, relating to the definition of the primary Unit of Record and to that of the Main Elevation.

Primary Unit of Record. There is no universally-applicable method whereby the primary Unit of Record can be established. For example, in relation to domestic buildings, it could be an individual house, a semi-detached pair, or a complete terrace, while in relation to an agricultural or industrial complex, it could be a detached building, a functional unit, or an agglomeration of attached or detached buildings. There is also the question of whether the associated house is part of the same unit of record as the other buildings.

In order to ensure consistency of approach across the country and between fieldworkers, the following rules should be observed.

- In respect of *domestic buildings*, the unit of record is a single habitation – a detached house, one dwelling in a semi-detached pair or in a terrace.
- In respect of *agricultural or industrial complexes*, the unit of record is the complex, whether or not the buildings are attached, provided that they are in reasonable proximity to each other (in other words, detached barn, granary and stable related to the same yard or set of contiguous yards form a single unit of record, while separated complexes do not).
- For *other categories* of building similar principles can apply: for example, most *religious buildings* can be treated in a similar fashion to domestic ones, while *institutional buildings* can be assessed by whichever method suits their individual form.

A particular set of issues surrounds sites where a house is associated with an agricultural or industrial complex, of which it may either form an attached or contiguous element. Strict application of the conventions outlined above would have the potential

- for either the house or the rest of the complex to be ignored (if there were more than twenty 'historic buildings' in the kilometre square), which does violence to historical intelligence; or
- for the two to be subsumed into a single Unit of Record, even though experience shows that they may be subject to radically different patterns of activity in relation to all the Indicators of Change.

In order to overcome these issues, the house and the complex should be treated as separate Units of Record, BUT, wherever one is selected, its associated element should also be included. In such circumstances, and where there are more than twenty 'historic buildings' in a kilometre square, the total number of Units of Record should be increased by one for each associated pair included in the survey: for example, if there are thirty 'historic buildings' in a given square, and three of the twenty selected have a closely associated element, the number of Units of Record would be increased from twenty to twenty-three.

Main elevation. Definition of the Main Elevation of a single building is not usually problematic, as it will be the elevation which contains the principal entrance - the front door of a house, the main (usually south) elevation of a parish church. For complexes, definition is more difficult, and should be conducted according to the following rules.

- For complexes of *attached vernacular buildings*, such as a Georgian-type U-shaped farm, where the main approach is to the 'outside' of the linking range, the Main Elevation is considered to be the 'outside' of the

three (or more) bounding ranges: it would therefore typically consist of three elements, which would be treated as one, but with the possibility of entering multiple indications of *Current Use, Walling Material* and *Material of Roof Covering*. **Insert diagram**

- For complexes of *attached vernacular buildings*, where the main approach is to the 'inside' of the complex, such as an L-shaped Cheshire farm, the Main Elevation is considered to consist of the 'inside' faces of the bounding ranges: it would therefore typically consist of two or three elements, which would be treated as one, but with the possibility of entering multiple indications of *Current Use, Walling Material* and *Material of Roof Covering*. **Insert diagram**
- For complexes of *detached vernacular buildings*, the same system is to be applied. Where the individual structures do not form a regular plan, fieldworkers will take a pragmatic view on what constitutes the 'front' of each building, and will aggregate those fronts into a single Main Elevation, and will be able to enter multiple indications of *Current Use, Walling Material* and *Material of Roof Covering*, as above. **Insert two or three diagrams**
- For complexes of 'polite' buildings, the main elevation of the principal building should be selected. There are likely to be very few of these in the kilometre squares, and each can be treated on its own merits. **Insert diagram**

This process of selection will only form part of the initial, base-line survey. Once the Main Elevation has been selected by the fieldworkers during the course of the base-line survey, its precise outline must be marked on the modern map by a green line parallel to the relevant wall(s). This will allow those conducting the period re-surveys to identify the Main Elevation with certainty.

*Data Entry*

In the ideal world – and certainly before the full base-line survey is undertaken – a database should be created so that data can be entered directly in the field, and so that the necessary number-crunching can be done expeditiously once the fieldwork is complete. If that is not possible in time for the Pilot Project (see below for the timetable), Architectural Investigation will create a paper form, from which others can enter (manually or by scanning) data into an electronic system at a later date (see further under *Support from Other Sections of English Heritage*).

*Timetable*

The Project Board has already agreed that fieldwork for the Pilot Project should be completed by the end of December 2002. Those who have so far been approached with a view to undertaking the field work have been unanimous in their desire to complete it before the clocks change at the end of October, and that is the deadline which is being inserted into Forward Job Plans (see further

under *Support from Other Sections of English Heritage*).

*Personnel*

The Architectural Investigation element of the Pilot Project will be managed by the Operations Manager with some assistance from the Investigation Casework Manager, reporting to the Project Board. Fieldwork will be conducted in pairs, largely by Investigators (rather than Senior Investigators), reporting direct to the Operations Manager. Two Investigators will be nominated from the Section's staff in each of Cambridge, London, Swindon and York. Some additional input may be needed in respect of London where neither of the Investigators can drive.

*Equipment*

All equipment can be supplied from normal team kit.

*Health and Safety/Risk Assessment*

In the wake of Foot and Mouth Disease, and against the general background of pressures on the rural economy, as well as of issues of public concern recently raised in relation to the Images of England project, staff may expect to encounter some hostility. In order to reduce the risk, it is vital that staff are supplied with

- a well-produced Information Sheet which can be distributed upon demand or used by way of introduction to private property; it should bear the *imprimatur* of both English Heritage and the Countryside Agency, to make clear both the specific affiliation of staff and the wider framework within which the project sits (which will be familiar to a high proportion of property owners and occupants).
- a proper English Heritage Identity Card (it is only 38 months since the wheels were set in motion to replace the old RCHME one).

**Failure to supply these two pieces of documentation in time for fieldwork to begin in August will severely jeopardise the viability of the Pilot Project. English Heritage could be deemed to be failing in its duties of care to staff if it sends fieldworkers out lacking this documentation.**

All other Risk factors are as covered in the generic Architectural Investigation fieldwork Risk Assessment kept by the Operations Manager.

*Support from Other Sections of English Heritage/Dependencies*

Input from Architectural Investigation is limited to fieldwork. It therefore follows that resources from outside the Section must be applied to both the initial work and follow-up analysis. The following are the crucial elements.

Preparatory Work

**Maps**

- Second Edition 1:2500 OS Maps to be supplied for all kilometre squares selected for the Pilot Project.
- Modern 1:2500 OS Maps to be supplied for all kilometre squares selected for the Pilot Project.
- Buildings shown on the Second Edition map which appear also to be depicted on the Modern map should be circled in pencil.
- The number of circled buildings to be noted on the back of the Modern map.
- If there appear to be more than twenty circled buildings, the 100 metre grid lines to be highlighted on the Modern map.

**Database**

Architectural Investigation will abstract from this document a list of headings and controlled terms for the database. From that, *either* Architectural Investigation will construct a paper form upon which data can be entered by the fieldworkers, *or* a third party needs to construct a simple database into which data can be entered directly by the fieldworkers.

Follow-up work

Data analysis

No matter whether fieldworkers provide data on paper or in electronic form, collation and analysis must be supplied by a third party.

**Failure to supply all the preparatory work to Architectural Investigation by the end of August 2002 will mean that fieldwork cannot be conducted in September and October, and will jeopardise the Pilot Project. The data must be collated and analysed between December 2002 and March 2003 if English Heritage is to adhere to the agreed timetable for review of the Pilot Project and Recommendations for the Full Survey.**

*Paul Barnwell*
*25 March 2002*

# ENGLISH HERITAGE: THE HISTORIC SETTLEMENTS AND LANDSCAPES ADVISORY COMMITTEE

*Duncan McCallum*

**Agenda item**

**MEETING: 10 JULY 2002**

**STATE OF THE HISTORIC ENVIRONMENT REPORT HSLAC 2002/-**

**EXECUTIVE SUMMARY**

The publication by English Heritage of the first State of the Historic Environment Report (SHER) in late November 2002 will begin an annual reporting cycle on change in England's historic environment. The SHER 2002 will be a pilot, pulling together information that already exists, identifying areas where there is poor data, suggesting possible key indicators and requesting feedback on the future direction of the project.

Although a large amount of information about specific parts of the historic environment is already available, this tends to be total numbers of designations rather than their condition or change. There remain significant areas where little or no data exists, such as condition and change in the countryside, in historic landscapes or in conservation areas. These will require specific research projects to be initiated to identify what can and should be measured in order to have a clearer understanding of how these parts of the historic environment are changing.

There is strong support for SHER from our partners and many have already provided very useful information for inclusion in the first report. The longer-term success of SHER will, however, depend upon the development of a straightforward yet representative series of key indicators that reflect wider change in the historic environment.

**RECOMMENDATIONS**

**The Committee is invited to:**

a) **NOTE progress to date; and**

b) **DISCUSS and SUPPORT the approach being taken; and**

c) **SUGGEST areas that need further investigation as well as possible PRIORITIES for the selection of key indicators.**

## BACKGROUND

One of the recommendations made by the *Power of Place* Steering Group was that English Heritage should initiate a regular report on the condition of the historic environment in England and develop ways of measuring the sector's cultural, economic and social impact through the development of appropriate indicators.

The Government supported this course of action in *The Historic Environment: A Force for Our Future* and asked English Heritage to produce a pilot state of the historic environment report in 2002. SHER will be produced annually and it will take over and greatly expand the work that the English Tourism Council's *Heritage Monitor* had been carrying out for the past 25 years until its final edition in 2001.

## CURRENT PROGRESS ON THE STATE OF THE HISTORIC ENVIRONMENT REPORT

SHER will be launched at the end of November 2002, thus the text will need to be virtually complete by the middle of September. This very tight timescale means that it has not been possible to commission new survey work or develop the full range of indicators. Consultants are being used to help gather and analyse some of the information. The first SHER will therefore be a pilot that sets out what information exists, what will need to be collected in future and identifies areas of work that need further research for future SHERs to develop data sets that provide a meaningful long-term analysis of the historic environment. SHER 2002 will also suggest a series of key indicators that will act as 'headlines' for the changes that are taking place in the historic environment as a whole could be used and this consultation process will be an important part of the document. Other agencies, most notably the Countryside Agency and the Environment Agency, have been successfully producing state of the environment reports for several years.

The document will attempt to cover the changes within the historic environment sector in England in 2001 and the first part of 2002 but will supplement this with information collected outside this period where appropriate. The tight timescale for the Pilot SHER will regrettably limit the degree of external involvement in the first document but for it to be a success in the longer term, it is essential that it becomes a collective effort. Although English Heritage will be responsible for producing SHER each year, the intention is to set up a steering group to involve partners across the whole of the historic environment sector as well as Government Departments, Agencies and other historic environment bodies.

Any 'State of...' report is expected to fulfil many functions: it acts as a 'high-level' document that informs political and resource decisions at national and regional levels; it provides a useful scene-setting for those with an interest in, but no direct involvement in the sector; it offers a detailed audit of what exists where, and it sets a framework for monitoring and analysing change. To do

all this in a single document is a huge challenge and for SHER the intention is to provide the information in two ways. A printed A4 document will be produced that will summarise the most important information, comment on and analyse national and regional changes and trends and set out possible 'Key Indicators' for future SHER reports. The document will invite comment on form, content and future direction including what the 'Key Indicators' might be. The second part will be a section of the English Heritage Website which will contain an electronic version of the main report but also all the supporting data. Most information will be provided at a national and regional level but it will be provided down to local level where possible. This will allow others to carry out their own analysis of the information for their particular local authority or subject area. A limited amount of additional commentary text will be provided with the statistical information.

SHER 2002 will be based on the collection and manual analysis of available information sources. It will not be possible to cross-reference spatial data, for example, linking the geographical spread of historic environment features with areas of social deprivation will not be possible. In the longer term, the provision of GIS is critical to the successful development of SHER, as it will open up a whole new dimension in our understanding of the historic environment resource. However, the decision has been taken not to use a GIS base for the first SHER because it must be developed as an agreed approach with a wide range of partners. Work on progressing a GIS base for SHER continues and will be reported on in due course.

Work is ongoing to devise an appropriate structure for the report. The suggested broad content of the report is set out below, but it is still being developed and will undoubtedly change considerably over the next couple of months. Wherever possible and as space permits it is hoped to include individual cases studies of innovative or particularly interesting pieces of work, such as the Liverpool Project or initiatives involving working with groups of people who do not normally identify with the historic environment.

**PARTICULAR PROBLEM AREAS**

There is a lot of data on the number of the various types of designated sites, and the challenge is to select only the most useful pieces of information. In other areas there is little or no data and considerable difficulty in developing useful ways of measuring condition and change. Work is only just beginning on the measurement of change in the historic environment and it will take time to identify appropriate indicators in all areas, but there are a number of areas of work that pose particular challenges.

The contribution the historic environment makes to economic well-being is little understood and only then rarely measured in certain discrete areas. It seems likely that the true economic value of the historic environment is not appreciated and this is one of the areas that SHER needs to commission consultants to investigate.

The relevance of the historic environment in tackling issues of social exclusion, educational disadvantage, equal physical access and so on also needs to be addressed more fully than it is at present, so that the true contribution it makes to addressing some of the Government's key concerns can be highlighted.

In addition, changes that are taking place to the historic environment dimension of the countryside are currently not recorded but are an important and very current concern. This area is being addressed by the proposed **pilot project to monitor change in the countryside** which would link into the DEFRA-sponsored Countryside Survey (see 6 below).

The forces of change in Conservation Areas and historic urban areas are also poorly understood and investigation is needed to identify methods of measuring these in a reasonably comprehensive yet cost-efficient way.

## PILOT PROJECT TO MONITOR CHANGE IN THE COUNTRYSIDE

The purpose of the pilot project is to test the feasibility of creating a heritage layer for the next Countryside Survey which is likely to take place in 2006. The survey will trial methodologies and monitor time and resource impacts upon the various survey and archival teams within English Heritage to inform future planning. Ultimately the decision about the appropriate level of English Heritage participation in the Countryside Survey will be informed by the experiences of the Pilot Project.

The core objective of the Pilot Project is to create a series of indicators which will monitor changes in the historic environment that are robust and testable, which would underpin other corporate agendas such as Historic Landscape Characterisation, and would form part of SHER. In the longer term, the methodologies developed might also prove applicable to measuring change in the urban environment. The incorporation of a heritage layer in the Countryside Survey will introduce both time depth into the study of change and assist with the identification of its 'drivers'. Overall English Heritage participation in the Countryside Survey will directly provide further influence upon rural policy-making at Government level as well as forming the core of SHER's rural dimension.

The pilot project will survey 10% of the Countryside Survey's 263 kilometre squares that are scattered throughout England between September 2002 and February 2003. The rapid survey will look at such things as field systems, boundaries, routeways, water supplies and buildings and will be supplemented by existing data sets. The final report on the pilot and the potential for a full-scale survey to link into the Countryside Survey will be completed by mid 2003.

## REGIONAL IMPLICATIONS

Valuable work has already been done in Yorkshire by the regional office of English Heritage and Yorkshire Forward (the Regional Development Agency) in an initiative to consider what could be included in a regional SHER. Workshops were arranged with interested bodies to discuss what indicators should be used to monitor the historic environment at both the regional and national level. The consultants found that the availability of reliable time-series data for the indicators was, as expected, limited. In some cases there is scope to generate data at modest cost. Regional staff will be approaching those authorities who did not provide data for the original regional study so that the RDA and English Heritage Yorkshire Region will be able to publish a more comprehensive picture of the state of the region in October 2002.

The core indicators were; numbers of Buildings at Risk, numbers of historic environment staff, proportion of Conservation Areas with appraisals adopted, Scheduled Monuments at Risk, attitudes to the historic environment, funding of the historic environment, and the state of the countryside. Some supplementary indicators may also be used where data is already available.

Such work is valuable in broadening support for the historic environment and developing an understanding of its social and economic importance. The Yorkshire model could be usefully applied in other regions and although national SHER indicators have not yet been drawn up, there will be a considerable overlap.

The Countryside Agency's *State of the Countryside* report has 'daughter' versions for each of the Regions and in time this model with central collecting of information combined with pertinent regional analysis and interpretation could be a way forward.

## RESOURCES

An English Heritage budget of £155,000 has been made available for this financial year which will be sufficient to cover secondment and administrative costs, design, printing and publication costs, consultancy fees for the collection of data and a limited amount of research for future SHER indicators.

It will be possible to draw up a more accurate requirement for the future SHER budget requirements in November when most of the costs for the first report are known.

## SUMMARY AND CONCLUSION

SHER is on course for publication in late November 2002 and it will be the first step in creating an important long-term analysis of change in the historic environment. The first SHER, with its

emphasis on consultation, will stimulate discussion in the historic environment sector about how that change can best be measured. It will provide a better understanding of what it is possible to measure within the resources available. It will also provide another mechanism through which English Heritage can fulfil its lead body role by fulfilling the objectives set out in *Power of Place* and *Force for Our Future*.

HSLAC will be kept informed of progress and will be able to contribute to the shaping of SHER as it matures into an information resource that is valued across the historic environment sector.

**CROSS REFERENCE TABLE**

| **Implications:** | **Where raised within the report:** |
|---|---|
| Legal implications | Not relevant |
| Financial/staffing implications | Need to consider whether future SHERs should be on a secondment basis or as permanent staff |
| Health & Safety implications | None |
| PR Implications | Positive PR at publication launch |
| Risk Management implications | None |
| Other professional implications? | None |
| Relevant past decisions | None |
| Environmental Issues | None |
| Social Inclusion Issues | Need to ensure inclusion of access and social inclusion issues as mainstream component of frameworks |
| Issue to be considered by another meeting? | Consideration of what elements should form part of future SHER recording |

*Duncan McCallum*
*Head of Historic Environment Reporting*

*June 2002*

# APPENDIX: PROPOSED CONTENT FOR THE FIRST STATE OF THE HISTORIC ENVIRONMENT REPORT

## 1. INTRODUCTION

## 2. 2001 - A SUMMARY OF CHANGES IN THE HISTORIC ENVIRONMENT (HE)

National, international and EU activity, regional and local issues, significant changes to HE sector organisations.

## 3. IDENTIFYING AND PROTECTING THE HISTORIC ENVIRONMENT

Introduction - Summary of Positive, Negative and Uncertain Impacts.

**Indicator 1 - The number and type of HE assets that are formally protected**

World Heritage, Scheduled Monuments, Listed Buildings, Conservation Areas, Historic Parks and Gardens, Historic Battlefields, Protected Wrecks, other relevant designations including National Parks, AONBs and Heritage Coasts.

**Indicator 2 - Other historic environment assets whose value is recognised in other ways**

Number of entries in NMR, number of entries on HERs, locally listed buildings, known wrecks and marine war graves, Local Heritage Initiative, locally designated sites, community action to protect sites, work by local and national amenity societies etc.

**Indicator 3 - The level of research and other activity that identifies and ascribes value to the HE**

Historic Landscape Characterisation, recording work by NMR, Extensive Urban Surveys, Liverpool Project, Cornish Settlements etc, academic research and work by national amenity bodies etc.

## 4. OPTIMISING THE ECONOMIC POTENTIAL OF THE HISTORIC ENVIRONMENT

Introduction.-.Summary of Positive, Negative and Uncertain Impacts, concepts of sustainability.

**Indicator 4 - Visitor numbers to historic sites**

Estimated total visitor figures, estimated visits to historic parks, change in admission/free visits, types of historic property visited, distribution of Historic Property numbers and sites, ownership of sites, gross revenue at historic properties.

**Indicator 5 - The wider economic impacts of visits to historic sites**

Multiplier effect for income and employment of tourist visits, why visitors come to an area.

**Indicator 6 - Research on the impact of the HE in encouraging/discouraging investment**

Office rental values for listed and unlisted commercial office space.

**Indicator 7 - The value of conservation work in the construction sector as a whole**

Regeneration, re-use of buildings – refurbishment against new build,tonnes of natural slate delivered.

**Indicator 8 - Energy/ Use of natural resources**

Reuse of existing buildings, contribution historic environment makes to non renewable and renewable energy use.

**Indicator 9 - House Condition versus Age**

Information from English House Condition Survey.

**Indicator 10 - Fire Statistics**

English Heritage and National Trust figures, work being done on national figures.

## 5. BROADENING KNOWLEDGE OF AND ACCESS TO THE HISTORIC ENVIRONMENT

Introduction - Summary of Positive, Negative and Uncertain Impacts.

**Indicator 11 - The role of the Historic Environment in formal education**

Number of Secondary, Higher and Further Education Courses on Historic Environment topics, number of formal education visits to sites that normally charge.

**Indicator 12 - The role of the Historic Environment in informal education and Life Long Learning**

Membership of general Environmental Organisations, specialist HE organisations, sites open for Heritage Open Days, main awards for the HE.

**Indicator 13 - Developing areas of research on the Historic Environment**

Priorities for Government, EH and HE research.

**Indicator 14 - Broadening access to and public understanding of the HE**

MORI poll main themes, accessibility of main sources of information including NMR, HERs, Images of England, LBS online, Urban Archaeological Databases specialist amenity websites etc, Conservation Area and Architecture Advisory Panels run by Local Authorities (LAs), Key publications.

**Indicator 15 - Improving Physical Access to the HE**

Number of DDA audits carried out.

## 6. MANAGING THE HISTORIC ENVIRONMENT

Introduction - Summary of Positive, Negative and Uncertain Impacts.

**Indicator 16 - The level of financial resources made available for the HE**

Local Authority, EH, HLF, government, EU, other agencies grants for conservation and archaeology, sources from AHF, APTs etc, private sources of funding.

**Indicator 17 - The number of people employed in the HE Sector**

LA staffing for Archaeology and building conservation, EH, other agency and Government staffing, staff in trusts and voluntary organisations, people employed in the private sector.

**Indicator 18 - International Treaties ratified**

**Indicator 19 - The condition of World Heritage Sites and pressures on them**

Number of World Heritage Sites (WHS) with management plans completed/ in draft/in preparation, degree to which Statutory Development Plans have taken on WHS status, number of Reactive Monitoring Reports made to ICOMOS, presence of steering groups and positive action for Tentative List sites.

**Indicator 20 - The condition of the historic rural landscape**

Progress of historic landscape characterisation, condition of rural farm buildings, area under Agri-environment schemes, survival of ridge and furrow and hedgerows, area of semi-natural grassland, national loss of soil to development.

**Indicator 21 - The condition of the historic urban landscape**

Extensive and Intensive Urban Surveys, condition of urban areas, Liverpool Survey preliminary findings, number of design strategies, ways of measuring change and effectiveness of management in urban areas.

**Indicator 22 - The condition of scheduled monuments and pressures on them**

MARS, LA Archaeological staffing per 1000 Scheduled Monuments and 1000 HER or NMR entries, Number of SMCs as a % of total SMs and number of Plan Apps affecting SMs as a % of total SMs, other identified pressures, management tools e.g. Conservation Plans

**Indicator 23 - The condition of listed buildings and pressures on them**

EH Buildings at Risk Survey for GII* and I nationally, Local Buildings at Risk Surveys for GII in

London, EoE and Yorks, LA historic building staffing per 1000 listed building entries, number of LBCs per 1000 listed buildings, EH notifiable LBC applications, Number of LBCs approved for full demolition, Other identified pressures including delistings and reasons – Listing Hotcases, management tools eg Conservation Plans.

**Indicator 24 - The condition of conservation areas and pressures on them**

Number of Conservation Area Consents per 100 conservation areas, number of EH-notifiable (over 1000 $m^2$) plan apps per 100 Conservation Areas, number of Conservation Area Appraisals per 100 Conservation Areas, ways of measuring change and management success.

**Indicator 25 - The condition of historic parks and gardens and pressures on them**

Number of Planning Applications notified to Garden History Society per 100 HP&Gs, Number of notifiable Planning Applications for GI and II* HP&Gs per 100 HP&Gs, pilot work on HP&Gs at Risk, ways of measuring change and management success.

**Indicator 26 - The condition of historic battlefields and protected wrecks and pressures on them**

Number of Plan Apps notified to EH as affecting historic battlefields, other identified pressures, Ways of measuring change and management success, number of licences issued for dives on protected wrecks, identified pressures, ways of measuring change and management success.

**7. THE FUTURE DIRECTION OF SHER**

*Questions on what the key indicators should be, frequency of reporting, how SHER should be managed etc.*

# COUNTRYSIDE SURVEY PILOT PROJECT 2002-3: ARCHAEOLOGICAL FIELDWORK MANUAL

*Peter Topping*

**Introduction**

This manual is structured to follow the numbering of the data fields of the recording form. All data fields are mandatory except '(8) Additional Notes', which provides further space for observations, particularly when completing field 2.

The initial series of data fields are self explanatory.

***Aggregate terms*:**

**EARTHWORK SITE / STANDING STRUCTURE / OTHER**

Tick the relevant box or boxes. Note 'Other' includes cropmark sites.

**PREVIOUSLY RECORDED SITE / NEW DISCOVERY / ACCESS DENIED**

Tick the relevant box or boxes. If access is denied tick box and proceed to next site or area. Do not try to persuade intransigent landowners as this might impact negatively in future surveys. Err on the side of caution – and politeness.

**1. SITE CLASSIFICATION AND PERIOD**

Site classifications should be based upon the *'Thesaurus of Monument Types'*. Multiple classifications may be necessary in some cases where sites have a complex and multi-period history. The date range of the monument should be listed: more than one period may be represented.

* **Military / defence sites**: we need to avoid duplication with the work of Architectural Investigation, consequently it has been agreed that for the purposes of this Pilot Project we should record all earthwork sites, but also all military or defence-related buildings or installations that post-date 1900.

**2. LEVEL OF CHANGE SINCE LAST RECORD**

Where previous records exist, the level of change since that record was created can be described in general terms (it can be quantified in fields 5 & 6), eg *'Site has had its moat backfilled, remainder intact'*.

In the case of new discoveries that have no previous documentation, there should be an initial basic

record of the condition of the monument (continue in field 8 if more space for your description is

needed).

### 3. LAND USE CODES

These are based upon those developed by MARS, MPP and most recently SM@R! By adopting these codes the Pilot Project will achieve a concordance with the work of these programmes and feed directly into the SHER process. Several codes can be used together as necessary and should be listed in order of priority so that the greater land use is listed first.

*Code* *Legend and usage*

**CULTIVATED LAND**

**OT1** OTHER 1 -ALLOTMENT
Allotment.

**CL1** CULTIVATED LAND 1 - MINIMAL CULTIVATION
Minimal cultivation, involving no operations likely to be damaging to archaeological remains.

**CL2** CULTIVATED LAND 2 - OPERATIONS TO A DEPTH <0.25M
Operations restricted to a depth of less than 25cm, if possible state depth.

**CL3** CULTIVATED LAND 3 - OPERATIONS TO A DEPTH >0.25M
Operations in excess of 25cm depth, if possible state overall depth.

**CL4** CULTIVATED LAND 4 - CHARACTER UNDETERMINED
Character of operations not determined.

**COASTLAND**

**CO1** COASTLAND 1 - MARINE
That area below low water level and inside territorial waters; the term 'Marine' includes saline waters within tidal estuaries.

**CO2** COASTLAND 2 - INTER-TIDAL
That area between high and low water levels. Specify using: sand, shingle, mud flat, estuarine silt, rock etc.

**CO3** COASTLAND 3 - ABOVE HIGH WATER
Coastal area above high water level. Specify using: sand, sand dune, shingle etc.

**CO4** COASTLAND 4 - SALTMARSH

Salting etc.

**CO5** COASTLAND 5 – CLIFF AND RELATED FEATURES

This refers to coastal cliffs; for inland cliffs use Other 9.

**CO6** COASTLAND 6 - OTHER

Specify using terms not included in the above, e.g. raised beach etc.

**DEVELOPED AND URBAN LAND (OTHER)**

**OT2** OTHER 2 - IN USE AS BUILDING

In use as a building.

**OT3** OTHER 3 - BUILT OVER

Site underlying building or structure.

**OT4** OTHER 4 - CHURCHYARD

Including ground in current use for burials and legally consecrated ground, e.g. graveyard, chapel-ground etc.

**OT5** OTHER 5 - GARDEN

Specify using: private, public, formal etc.

**OT6** OTHER 6 - LAND BOUNDARY

Specify using: hedge, fence, wall etc.

**OT7** OTHER 7 - MINERAL EXTRACTION

For e.g. mine, quarry etc.

**OT8** OTHER 8 - LAND DEDICATED TO THE DISPLAY OF A MONUMENT

Where the land on which the monument stands is dedicated to the monument itself. This may include Guardianship sites displayed, also sites which exclude any other land classification, e.g. cross, commemorative monument etc.

**OT9** OTHER 9 - SUBTERRANEAN

Specify using: cave, cliff etc.

**OT10** OTHER 10 - ORCHARD

Orchard.

**OT11** OTHER 11 - THOROUGHFARE

Specify using: path, road, track, bridge, lay-by etc.

**OT12** OTHER 12 - VERGE

Verge.

**OT13** OTHER 13 - WASTE GROUND

Waste ground.

**OT14** OTHER 14 - RECREATIONAL USAGE

E.g. golf course, playing field etc.

**FORESTRY / WOODLAND**

**WL1** WOODLAND 1 - DECIDUOUS NATIVE

Defined as species present after the last glaciation, e.g. oak, ash, elm, beech, birch, alder, hazel, hornbeam, etc. Please specify whether currently managed; neglected, unmanaged or management not determined*.

**WL2** WOODLAND 2 - DECIDUOUS INTRODUCED

Defined as species introduced after the last glaciation, e.g. sycamore, sweet chestnut etc. *Please specify whether currently managed; neglected, unmanaged or management not determined.

**WL3** WOODLAND 3 - MIXED

In which coniferous and deciduous are present in roughly equal proportions. *Please specify whether currently managed; neglected, unmanaged or management not determined.

**WL4** WOODLAND 4 - CONIFEROUS PLANTATION

In which a range of conifers may be planted, e.g. spruce, larch, pine etc.

**WL5** WOODLAND 5 - UNDETERMINED

Please specify whether currently managed; neglected, unmanaged or management not determined*.

**WL6** WOODLAND 6 - PARKLAND

In which the density of trees is significantly less marked than in woodland; if parkland is currently cultivated then classify land accordingly.

**WL7** WOODLAND 7 - SCRUB

The term scrub includes invasive woodland characterised by the presence of birch, willow, alder, ash, sycamore, conifers as low trees, with shrubs.

**WL8** WOODLAND 8 - OTHER Please specify.*
'Managed' includes thinning, felling, coppicing, pollarding, ride and undergrowth clearance.

**SEMI-NATURAL LAND / GRASSLAND / HEATHLAND**

**GH1** GRASSLAND, HEATHLAND 1 - HEATHLAND
A plant community which includes low shrubs e.g. heathers, bilberry, gorse; also the presence of bracken.

**PASTURE / GRASSLAND / HEATHLAND**

**GH2** GRASSLAND, HEATHLAND 2 - UNDISTURBED GRASSLAND
If managed at all, then only to a low intensity, e.g. mowing, spraying etc., involving operations which are not archaeologically damaging.

**GH3** GRASSLAND, HEATHLAND 3 - DISTURBED
Areas of past and current land improvement, involving operations capable of disturbing the archaeology, e.g. land drainage, land reclamation, cultivation including areas of ridge and furrow but not 'Celtic fields' which if not subsequently ploughed should be classified as GH2.

**GH4** GRASSLAND, HEATHLAND 4 - REGULARLY IMPROVED GRASSLAND
Regularly cultivated and reseeded grassland, (but not including 'temporary' grassland within arable rotation - this would be classified under CL, cultivated land).

**GH5** GRASSLAND, HEATHLAND 5 - CHARACTER UNDETERMINED
Character and/or management not determined.

**GH6** GRASSLAND, HEATHLAND 6 - RECREATED GRASSLAND
Previously arable, usually part of Countryside Stewardship Scheme.

**RIVERS / LAKES / OPEN FRESH WATER**

**FW1** OPEN FRESH WATER 1 - RUNNING WATER
Specify using: river, stream, estuary above tidal (saline) influence etc.

**FW2** OPEN FRESH WATER 2 - STANDING WATER

Specify using: pond, lake, artificial lake, canal (if wet) etc.

**UNCLASSIFIED**

**OT15** OTHER 15 - OTHER
Please specify.

**WETLANDS**

**WT1** WETLANDS
To include areas of wet valley bogs, sphagnum bogs, ferns. *NB:* In areas such as the Fens and Somerset Levels most land should be classified under CL (Cultivated Land) or GH (Grassland, Heathland) rather than Wetlands (WL).

**4. VULNERABILITY CODES**

List the two major threats to the site, prioritised with the greater recorded first.

**AGRICULTURE**

**AC** ARABLE CLIPPING
**AP** ARABLE PLOUGHING also includes regularly improved grassland

**DR** DRAINAGE / DREDGING
**SSE** SIGNIFICANT STOCK EROSION

**NATURAL PROCESS**

**AB** ANIMAL BURROWING type and extent to be given in notes field
**CE** COASTAL EROSION
**COL** COLLAPSE
**DO** DRYING OUT (a ?natural process, though usually caused by agriculture)
**FL** FLOODING
**PG** PLANT GROWTH Includes heathland plants (bracken, heather, gorse), weeds (thistles, nettles, Ragwort, Giant Hogweed) and invasive plants found on masonry remains eg ivy, Red Valerian
**RE** RAIN ENTRY
**RT** ROT
**SG** SCRUB / TREE GROWTH Scrub: invasive woodland species eg sycamore and shrubs eg hawthorn, elder; trees including coniferous and deciduous (details given in notes field)
**SNE** SIGNIFICANT NATURAL EROSION Includes decay of exposed brick/stonework, wind/

water erosion

**DEVELOPMENT & URBANISATION**

**DPP** DEVELOPMENT REQUIRING PLANNING PERMISSION
**PD** PERMITTED DEVELOPMENT
**PU** PUBLIC UTILITIES
**RC** ROAD CONSTRUCTION
**RR** ROAD REPAIR/WIDENING

**FORESTRY**

**FR** FORESTRY

**MINERAL EXTRACTION**

**ME** MINERAL EXTRACTION / RELATED SUBSIDENCE

**OTHER:**

**DG** DIGGING
**DM** DUMPING
**DRN** DETERIORATION AS A RESULT OF NEGLECT
**GD** GARDENING
**LE** LEVELLING
**MD** METAL DETECTING
**SVE** SIGNIFICANT VISITOR EROSION
**VD** VANDALISM
**VE** VEHICLE EROSION rutting, compaction
**NKT** NO KNOWN THREAT

**5. PROPORTION OF SITE SUBJECT TO PRINCIPAL VULNERABILITY**

This section is designed to quantify the level of change to the site or monument. Tick the appropriate box to record the estimated scale of change or damage to the site.

**6. RISK ASSESSMENT**

This field provides the Pilot Project with a direct concordance with MARS/MPP/SM@R! processes. The first assessment method (see final two pages of manual; ignore questions 1-3 on the first page) leads you through a series of questions to determine the level of risk to sites in non-arable

locations. The following flow diagram works in a similar fashion to predict risk to sites through the effects of cultivation. This method is based on a decision-making tree, presented as a flow diagram, the outcomes of the diagram (boxes on the left, right or bottom of the diagram) are in effect a range of degrees of risk posed to the site from cultivation. Conclusions can be drawn at various stages: those sites where the evidence is less clear-cut, need the greatest number of assessment stages.

Stage by stage guide to using the Flow Diagram Method:

**Stage A: Is the site in arable or temporary ley and significant enough to be of concern?**

This stage determines whether the assessment process is applied at all. If the answer is "No" (e.g. if it is under permanent grass or the archaeology is not considered sufficiently significant) the site (or this part of it) is not appropriate for this assessment. If the answer is "Yes": the site (or this part of it) is appropriate for this assessment therefore move onto ***Stage B.***

**Stage B: What is the likely quality of archaeological survival?**

The likely state of survival and preservation is a key factor in determining likely vulnerability to damage. The definitions of these choices are:

- **Poor/Truncated** - (Low/Moderate Risk)
  - where only deep, truncated negative features survive
  - or where surface scatters are unlikely to contain significant evidence which would not be available from underlying archaeology
- **Medium or uncertain** - (Moderate/High Risk)
  - where very incomplete and damaged upstanding archaeology or incomplete layers of vertical stratigraphy, e.g. occupation horizons/ surfaces survive
  - where shallow negative features are present (as well as deeper ones), or where surface scatters are likely to represent evidence not reflected in underlying archaeology
  - where survival or preservation is unknown
- **Well preserved** - (High Risk)
  - where there is upstanding archaeology
  - where there is survival of structural remains
  - where 'soft' layers of vertical stratigraphy exist (occupation horizons/ surfaces etc) and/or where there are shallow negative features with important contents (e.g. graves)

In reality, if little is known about the site, then 'Medium or Uncertain' will usually have to be applied

as a form of default score; however, if there are good reasons to suspect potential for good preservation then well-preserved should be used.

The following factors will be useful in making assumptions about possible or probable survival:

- Whether the site is visible as an earthwork
- Intrinsic character of the site and its likely content
- Source evidence and topography (previous excavation, air photography, metal detecting, field walking or survey; e.g. sites known from cropmarks or well-spread soil-marks on flat or convex ground or on upper slopes, are likely to be truncated)
- Surface evidence of walls, flooring materials, dark artefact-rich spreads of soil or friable remains on the surface etc

**Stage C: What is the depth (or extent) of previous cultivation relative to the archaeology?**

*Issues:* This factor is critical to the assessment process because of the two extremes. A site that is deeply buried beneath alluvium or colluvium, and not subject to disturbance through subsoiling and drainage, may be quite safe from damage. At the other end of the spectrum, a previously undisturbed site being damaged for the first time, or uncultivated parts being encroached upon by new damage, is unlikely to be capable of sustaining further arable use without the occurrence of significant further damage. Both current threats from agriculture and future threats should be assessed if relevant.

Between these two extremes there are conditions where sites may or may not be relatively protected from damage, depending on the presence or absence of a 'buffer' between the undisturbed archaeology and the present ploughsoil. Spatially, this could be an uncultivated area round the perimeter of an earthwork, but is more likely to occur as a vertical buffer zone of previously disturbed soil separating the base of the present cultivation horizon from the top of undisturbed archaeology. The latter is difficult to judge without direct evidence.

The definitions of these choices are:

- **Deeply buried** - Significant undisturbed buffer of old colluvium or alluvium (*c* 0.20-0.75m) is likely to be present between the base of modern ploughsoil and the top of archaeology, *and* there is no danger of damage through subsoiling or drainage (Minimal Risk)
- **Moderate buffer** - To be used where a buffer (*c.* 0.10-0.20m) may reasonably be expected but where you would not be confident enough to assign the site to the deeply buried category– e.g. this could apply at the base of a slope or where old ploughsoil may be expected or where alluvium is likely to be present (Moderate

Risk)

- **No Buffer/Limited Buffer** - Present cultivation likely to be at interface with archaeology but with no obvious evidence of new disturbance (Medium Risk)
- **No Buffer/New damage** - Clear evidence of new disturbance from nature of surface finds/freshly disturbed subsoil, or other evidence of new disturbance. Also includes sites which are being cultivated for the first time or where there is new encroachment onto edges of an archaeological monument, or inducing erosion from it (High Risk).

Key factors that need to be considered are:

- Whether there is clear evidence of recent new ploughing of a previously unploughed site, or on-going encroachment onto unploughed areas (eg "step" lynchetting effects; erosion or gullying of material from within unploughed areas).
- Where surface indications suggest ongoing disturbance, implied by relatively fresh material being ploughed up - especially evidence of fresh subsoil, plaster or other artefacts that cannot survive long in the ploughsoil. Unabraded or freshly broken pottery/metalwork or the presence of sizeable pieces of low-fired pottery may also suggest ongoing damage. Lumps of freshly disturbed subsoil may also indicate recent disturbance
- Geomorphology (alluvium, colluvium deposits and their likely age)
- Topographical position (e.g. tops of slopes are less likely to have a buffer zone, whilst the bottom of slopes are more likely to have one - possibly to the extent of being deeply buried)
- Evidence from previous fieldwork (especially if recent)
- Evidence of previous and current cultivation/cropping practice e.g. a major switch from traditional ploughing to minimum cultivation techniques, or abandonment of previously grown crops that require deep cultivation may both indicate the likely existence of a buffer zone. The continued practice of deep cultivation for root crops, continued use of traditional mouldboard ploughing, subsoiling etc would suggest that a significant buffer zone is rather unlikely.

**Stage C: How are factors of slope likely to be influencing the likelihood of damage?**

*Issues:* The position of archaeological sites in relation to slopes is a factor that can significantly effect the likelihood and rate of damage.

The definitions of these choices are:

- **Medium/Steep/Top** – Sites that fall on the top of a slope or where the slope is

steep or moderately steep (High Risk)

- **Shallow or Complex** – Variable but moderate or shallow slopes (Medium Risk)
- **Flat/Bottom** – Flat ground or at the bottom or lower extent of a slope (this could also be the lower part of a field where it meets a field boundary, i.e. anywhere where soil has a chance to build up) (Low Risk)

*Assessment considerations:*

Damage is especially likely to occur at the top end of fields on slopes and/or where soil is moved away from negative lynchets. It is least likely to occur where soil is accumulating, at the foot of fields on slopes (or at the foot of the slopes themselves). It may be difficult to precisely judge what constitutes a steep/moderate/shallow slope. Rates of erosion differ quite significantly, depending on a range of factors, of which key considerations are usually soil type as well as the degree of slope involved. In general however, if a slope is less than 4 degrees (this should be obvious from a 1: 10,000 map) then it should be classified as a shallow slope.

Key factors that need to be considered are:

- Movement of soil down slope tends gradually to thin the topsoil at the top or mid slope, thereby tending to allow cultivation to bite into the subsoil (and any archaeology which may be present) even though the relative depth of cultivation below the soil surface remains the same.
- With compound slopes, archaeological sites on convex ground are likely to be more at risk than sites in concave locations.
- Most cultivation equipment has a planing effect, tending to flatten off undulations in the ground. Where these are small-scale, as with ploughed-over archaeological earthworks, the effect may be particularly damaging.
- The flat/bottom category factor should also be used for the lower regions of any slopes

**For sites not leaving the loop at this stage go on to the 'soil type' categories – *Stage D.***

**Stage D: How are factors of soil type likely to influence the likelihood of damage?**

*Issues:* Soil type is a significant factor in influencing erosion, cropping potential and drainage needs, including the risk from panning (which may lead to subsoiling or other forms of pan-busting).

The definitions of these choices are:

- **G = Good** - Medium, well drained, well structured soils where deep cultivation is not necessary (Low Risk)
- **M = Medium** - Medium soils with some difficulties (e.g. some tendency to panning, requiring drainage etc) (Moderate Risk)

- **P = Poor** - Light soils subject to rapid wind or water erosion; peat soil subject to shrinkage; heavy clay soils where drainage is necessary and deep cultivation is common (Moderate to High Risk)

*Assessment considerations*

The main considerations which need to be assessed here relate to the light and heavy soils where the risk of damage is greatest.

Key factors that need to be considered are:

- Archaeological sites on light soils tend to be at a moderate to high risk of damage because of the effects of water and wind erosion (or both combined), especially where coupled with deep cultivation and/or autumn sowing.
- Archaeological sites on heavy soils requiring drainage, pan-busting and deep cultivation, can also be considered to be at a moderate to high risk of damage.

Once the soil type has been considered, the level of risk to the monument will be indicated by an arrow.

## 7. GENERAL CONDITION OF SITE

Having progressed to this stage, a general assessment of site condition is needed, tick the appropriate box.

## 8. ADDITIONAL NOTES

This section is optional and designed for any additional information which may help define the levels of change to the site being recorded.

# APPENDIX 1: THE COUNTRYSIDE SURVEY ARCHAEOLOGICAL FIELD RECORDING FORM

| | | |
|---|---|---|
| Event name:<br>**COUNTRYSIDE SURVEY: EH Pilot Project 2002-3** | | CS square #:<br>Record sheet #: of |
| Unique Identifier: | NMR #:<br>NBR #: | Monument name: |
| NGR: | | |
| County: | District: | Parish: |
| Event type: Archaeological Field Investigation [Level 1] | Start date: | End date: |
| Surveyor: | Number of photos: | Neg Nos: |

| | | |
|---|---|---|
| **EARTHWORK SITE** | **S T A N D I N G STRUCTURE** | **OTHER** |
| **P R E V I O U S L Y RECORDED SITE** | **NEW DISCOVERY** | **ACCESS DENIED** |

| | | |
|---|---|---|
| (1) Site classification from *'Thesaurus of Monument Types'*; period(s) should be recorded | Type(s): | |
| | Period(s): | |
| (2) Level of change since last record (brief description),<br><br>***or*** in the case of new discoveries an initial record of condition [continue in (8) 'Additional Notes' below, if necessary] | OS Map Edn: | Other source: |
| (3) Land-use code(s) | | |
| (4) Vulnerability code(s) | Principal threat:<br>Secondary threat: | |
| (5) Proportion of site subject to principal vulnerability [see (4)] | <10% / 100% | <50% / <75% |

| | | | | | |
|---|---|---|---|---|---|
| (6) Risk assessment | Low risk | | Medium risk | | High risk |
| | Very high risk | | Immediate serious risk | | |
| (7) General condition of site | Improving | | No change | | Deteriorat-ing |
| | Unknown | | | | |
| (8) Additional notes (continue on reverse) | | | | | |

# APPENDIX 2: COUNTRYSIDE SURVEY: ARCHAEOLOGICAL SURVEY TIMESHEET

**COUNTRYSIDE SURVEY**

EH PILOT PROJECT 2002-3

Timesheet (record to the nearest half day)

Name: .....

Office: .....

| Date | Fieldwork | Office work | Other (specify) |
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| ***Totals*** | | | |

## APPENDIX 3: COUNTRYSIDE SURVEY QUESTIONNAIRE

Mark answers on a scale of 1 to 5: 1 being poor and 5 the highest scoring. Answers should be highlighted and the form returned electronically via email with the timesheet above.

- How useful were the aerial photos ? 1 2 3 4 5
- Which APs were most useful ? existing cover new both
- Was the updated HSIS site information accurate ?

  1 2 3 4 5
- Did you receive HER data for this sample square ? yes no
- Was the HER data useful ? 1 2 3 4 5
- Did you discover new sites ? yes no
- If yes, by what % did you increase the record ? =
- What % of sites have been lost to the record in your sample square ? =
- Overall, was your perception of the historic environment in your sample square one that it was generally well preserved and in a benign agricultural regime, in a situation of moderate change, or actively threatened ?

  OK moderate change threatened
- Did you have access problems ? yes no
- At what % of sites did you experience access problems ? =
- Do you have any practical recommendations for a future survey if we were to take this forward and fully participate in the CS in 2006-7 ?

# BUILDINGS AND RUINED BUILDINGS: MANUAL FOR PILOT (SAMPLE) PROJECT, 2002-3 - *DRAFT 2*

*Paul Barnwell*

**Purpose of the Pilot Project**

The purpose of the Pilot Project is to test the feasibility of creating a heritage layer for the quinquennial Countryside Survey. The central objective is to create a series of indicators for changes to the historic environment as they occur between surveys. At a practical level, the Pilot Project, to be conducted in 2002-3, needs to establish:

- The indicators of change which will be used in all future surveys after the initial one (which will establish a baseline against which that change will be measured).
- A method for compiling the data required to produce the indicators.
- A method for creating the base-line data in the initial survey.

The Pilot Project must also ensure not only that the indicators and methods identified are robust and meaningful, but also that they are proportionate and feasible; a significant element is therefore to establish the resources required to conduct both the full base-line survey and the periodic re-surveys.

**Background**

The Countryside Survey has been established for over two decades, and has evolved various methods of sampling and of procedure, some of which must be followed by those compiling a heritage layer. Chief amongst them is the fact that the unit of record is a pre-determined set of 273 one-kilometre grid squares distributed across the country in such a way as to reflect different kinds of landscape and habitat.

The Pilot Project is being be conducted on a 10% sample of the designated squares, the work being divided more or less equally between the Architectural Investigation Teams in Cambridge, London, Swindon and York (see Appendix 1). The same squares are also being examined by Archaeological Investigation, though under separate guidelines and management, and in an independent series of visits.

The Pilot Project as a whole involves colleagues from many parts of English Heritage, notably Architectural and Archaeological Investigation, Aerial Survey and the NMR. The overall Project Manager is Pete Topping (Archaeological Investigation, Cambridge), but the Buildings module is being managed by Paul Barnwell (Architectural Investigation, York) and the NMR input co-ordinated by David Graty (Swindon). Ultimate responsibility for the project lies with a Project Board chaired by

Humphrey Welfare (see Appendix 2).

*Indicators of Change*

The Indicators of Change have been identified in order to try to facilitate the measurement of significant changes to the built environment. They are not intended to provide a record of that environment or its condition *per se*, and will be used to produce high-level statistics, not records to enhance the NMR, HERs or other heritage archives.

Some changes to the built environment are drastic and readily able to be measured. The most obvious is the total demolition of a building; others include substantial demolition and extension. At a slightly lower level is conversion, reflecting change not only to the fabric, but also to function; the latter provides some index of economic and social change as well as of change to the built environment itself. Beyond such major changes, there are, however, a host of other kinds of alteration which may be made to buildings – including some types of restoration – which can have a substantial impact on the survival of historic fabric and on the historical and aesthetic character of both individual structures and of the landscapes of which they form part. Such changes can be reflected many different ways, and it would be impossible to seek to measure them all. Data will therefore be gathered to provide information concerning three main types of change.

- **Radical change to the shape or condition of the envelope. This category is largely self-explanatory and relates to demolition of the historic building (in whole or in part), or extension to it (ranging from a porch to a new wing), or its falling into ruin or being restored.**

- Change of use. Changes of use often involve significant alteration to historic buildings, even while falling short of Radical change to the shape or condition of the envelope, and may affect the historical, aesthetic and landscape character and value of the building and the area in which it stands.

- Restoration, renewal and repair. Both the restoration and repair of historic buildings can have a major impact upon their historical, aesthetic and landscape character, particularly by using materials which differ from those employed in the original structure. Changes of this nature may be influenced by various factors: the replacement of windows may reflect a concern with comfort and energy saving as much as the need for repair *per se*, and the materials used for the replacement frames may relate to cost and to the availability of both traditional materials and appropriately skilled labour; changes to roofing materials may relate particularly closely to questions of cost and availability of materials and labour. Indicators of Change relating to these aspects of the built environment may, therefore, not only provide data concerning change itself, but also clues as to the causes of (and

therefore possible remedies for) deleterious change.

**Scope of Survey**

Since this is the first Survey of its kind, and since the intention is that the same buildings should be assessed at roughly five year intervals in the future in order to identify changes to them, it is necessary for the initial Survey to record the buildings being assessed in such a way that they can be readily identified by future fieldworkers. A large part of the Pilot Project is therefore to test a method for determining and recording Units of Record.

*Sampling*

The Survey is intended to provide Indicators of Change, not to be comprehensive either in terms of the buildings examined or of the changes which occur to them.

Since there is no universally accepted definition of the scope of the historic environment, a pragmatic view has been taken which includes in the definition all surviving buildings shown on the Second Edition of the 1:2500 Ordnance Survey Maps (produced between the 1890s and 1914) covering the relevant kilometre squares.

In order to maintain a sense of proportion, it has further been resolved that a maximum of twenty such 'buildings' should be included for any one kilometre square (subject to the provision discussed under Unit of Record, below, where the relationship between 'buildings' and Units of Record is established). Many squares will contain fewer than twenty 'historic buildings', and in such cases all will be assessed. Where there are more than twenty 'historic buildings'/Units of Record, a selection will be made according to the following broad method:

- The number of extant 'historic buildings' will be assessed by comparing the Second Edition with the latest available 1:2500 map. Structures, or complexes of structures, which appear on both maps will be circled in pencil on the modern map; for the purposes of the Pilot Project, this will be done by colleagues in the NMR. (Second edition and marked-up modern maps will be sent from the NMR to Garry Corbett for checking and distribution to local teams.)
- The NMR will highlight 100-metre wide north-south grid lines on the modern maps.
- If there are between twenty and twenty-nine candidate 'buildings'/Units or Record (see below), the selection of twenty will be made on pragmatic grounds by the fieldworkers.
- If there are thirty or more candidate 'buildings'/Units of Record (see below) selection will be made by the fieldworkers, who will count them from the North of the West strip, from the South of the second strip, the North of the third, and so on, and applying the relevant proportionate formula: for example, if there are forty

candidate 'buildings'/Units of Record, alternate ones will be selected; if there are thirty, every third one is omitted; and so on. Where the numbers are less neat, the simple statistical method breaks down, but application of the same broad principles tempered by pragmatism will yield the necessary sample.

- A 'building'/Unit of Record (see below) is deemed to fall into the square (or strip) in which its north-west corner lies.

*Unit of Record*

There is no universally-applicable method whereby the primary Unit of Record can be established. For example, in relation to domestic buildings, it could be an individual house, a semi-detached pair, or a complete terrace, while in relation to an agricultural or industrial complex, it could be a detached building, a functional unit, or an agglomeration of attached or detached buildings; there is also the question of whether an associated house is part of the same unit of record as the other buildings.

In order to ensure consistency of approach across the country and between fieldworkers, the following rules should be observed.

- In respect of *domestic buildings*, the unit of record is a single habitation – a detached house, one dwelling in a semi-detached pair or in a terrace (see Appendix 3 diagram *e*).
- In respect of *agricultural or industrial complexes*, the unit of record is the complex, whether or not the buildings are attached, provided that they are in reasonable proximity to each other (in other words, detached barn, granary and stable related to the same yard or set of contiguous yards form a single unit of record, while separated complexes do not).
- For *other categories* of building similar principles can apply: for example, most *religious buildings* can be treated in a similar fashion to domestic ones, while *institutional buildings* can be assessed by whichever method suits their individual form.

A particular set of issues surrounds sites where a house is associated with an agricultural or industrial complex, of which it may either form an attached or contiguous element. Strict application of the conventions outlined above would have the potential

- either for the house or the rest of the complex to be ignored (if there were more than twenty 'historic buildings' in the kilometre square), which does violence to historical intelligence; or
- for the two to be subsumed into a single Unit of Record, even though experience shows that they may be subject to radically different patterns of activity in relation

to all the Indicators of Change.

In order to overcome these issues, the house and the complex should be treated as separate Units of Record, BUT, wherever one is selected, its associated element should also be included. In such circumstances, and where there are more than twenty 'historic buildings' in a kilometre square, the total number of Units of Record should be increased by one for each associated pair included in the survey: for example, if there are thirty 'historic buildings' in a given square, and three of the twenty selected have a closely associated element, the number of Units of Record would be increased from twenty to twenty-three.

Once fieldworkers have identified a Unit of Record for inclusion, it should be circled in blue on the modern 1:2500 map, and a number written next to it, also in blue (see Appendix 3 diagram *a*). This is particularly important in the case of buildings which are close together (e.g. a group of farm buildings treated as one Unit of Record, and an adjacent farmhouse treated as another – see Appendix 3 diagram *b*) The number should be in two parts – the number of the CS Square (see Appendix 2) followed by that of the 'building' within the square, in the form 366/15.

Within each Unit of Record, fieldworkers should shade in red the precise extent of the buildings being assessed; any part of a building or complex which has been demolished since the modern map was published will therefore remain unshaded (see Appendix 3 diagrams *c* and *d*), while any extension to the building will be added to the outline shown on the map (see Appendix 3 diagram *d*). This will assist those conducting the period re-surveys to identify the 'building' with certainty, and will also allow them to assess whether there has been Radical change to the shape of the envelope.

While we need to aim for consistency, there may be cases where the above rules do not work neatly. In such cases pragmatic decisions should be taken in the field. It is more important that the Unit of Record and the actual buildings assessed are clearly marked on the map for future reference than that scientific rigour be applied in all instances.

*Method of Assessment*

Data will be gathered from external inspection of buildings; access to interiors is not to be sought. It has further been resolved that only those features visible when viewing the Main Elevation are to be assessed, so that owners and occupiers are occasioned as little disruption as possible, and so that 'snooping' is kept to a minimum. In order that fieldworkers on future surveys are certain they are using the same elevation, the Main Elevation as defined during the initial survey must be marked on the modern 1:2500 map by a green line parallel to the wall(s) chosen (see examples in Appendix 3).

Definition of the Main Elevation of a single building is not usually problematic, as it will be the

elevation which contains the principal entrance - the front door of a house, the main (usually south) doorway of a parish church. For complexes, definition is more difficult, and should be conducted according to the following rules.

- For complexes of *attached 'vernacular' buildings*, such as a Georgian-type U-shaped farm or an industrial complex, where the main approach is to the 'outside' of the linking range, the Main Elevation is considered to be the 'outside' of the three (or more) bounding ranges (for a more complex example, see Appendix 3 diagram *b*): it would therefore typically consist of three elements, which would be treated as one, but with the possibility of entering multiple indications of Current Use, Walling Material and Material of Roof Covering (see *Data* below).
- For complexes of *attached 'vernacular' buildings*, where the main approach is to the 'inside' of the complex, such as an L-shaped Cheshire farm, the Main Elevation is considered to consist of the 'inside' faces of the bounding ranges (see Appendix 3 diagram *c* for an example): it would therefore typically consist of two or three elements, which would be treated as one, but with the possibility of entering multiple indications of Current Use, Walling Material and Material of Roof Covering (see *Data* below).
- For complexes of *detached 'vernacular' buildings*, the same system is to be applied. Where the individual structures do not form a regular plan, fieldworkers will take a pragmatic view on what constitutes the 'front' of each building, and will aggregate those fronts into a single Main Elevation (see Appendix 3 diagram *d*). It will again be possible to enter multiple indications of Current Use, Walling Material and Material of Roof Covering, as above (see *Data* below).
- For complexes of 'polite' buildings, the main elevation of the principal building should be selected. There are likely to be very few of these in the kilometre squares, and each can be treated on its own merits.

As with Units of Record, clarity in marking the Main Elevation on the map is more important than absolute adherence to the rules in every case.

**Data**

Once the Unit of Record and its Main Elevation have been selected, data is gathered using the Field Recording Form. *In order that statistics can be extracted consistently, data must be gathered within a restricted range of possibilities (listed below in brackets and shown on the Form); no other data or terms are permitted, though supplementary notes may be made on the back of the form if deemed necessary or helpful.*

- CS Square Number The number of the kilometre square allocated by the

Countryside Survey; it forms the first part of the number to be noted on the map. A list of the squares being used for the Pilot Project is at Appendix 1

- Building Number The number of the 'building' or Unit of Record within each kilometre square; it forms the second part of the number to be noted on the map.
- NGR Eight-figure grid feature-centred grid reference.
- Building Name This is a simple identifier for the 'building'/Unit of Record; in the case of Listed Buildings, it should match the name as recorded in the Lists. For the purposes of the Pilot Project, June Warrington will use the maps of Listed Buildings held in Savile Row to compile a register of all Listed Buildings within the kilometre squares being assessed, and will circulate their names and eight-figure grid references (where possible) to all members of the project team for the Buildings module (Appendix 2). Names will be checked again in York at the end of fieldwork (see *Data Analysis* below).
- Original Use Only to be noted during the initial survey. (One or more of: Agricultural, Civil, Domestic, Industrial, Institutional, Military, Religious, Other, Uncertain/ Unknown.) Recorded by placing a cross in the relevant box(es).
- Current Use To be noted during every survey. (One or more of: Agricultural, Civil Domestic, Industrial, Institutional, Religious, Other, Uncertain/Unknown, Vacant/ None [includes ruins].) Recorded by placing a cross in the relevant box(es).
- Physical Status. During the initial survey this will be noted in comparison to the extent of the building(s) as shown on the modern 1:2500 map; in future surveys, it will be noted in comparison with the extent of buildings shaded in red on the modern 1:2500 map. (One or more of: Complete, Part Demolished, Fully Demolished, Extended, Ruined, Uncertain/Unknown.) Recorded by placing a cross in the relevant box(es).
- Number of Storeys visible when viewing the Main Elevation as marked on the map; attics are counted as half storeys. Recorded by placing a number in the relevant box (whole number; use decimal fractions for half storeys). Where the elevation treated as the Main Elevation contains elements with different numbers of storeys, the numbers should be separated by a comma (e.g., 2,1).
- Walling Material of Main Elevation as marked on the map. (One of more of: Artificial Stone, Brick, Concrete, Metal, Mock timber-framing, Mud, Pebbledash or other textured render, Render [smooth], Slate-hung, Stone, Surface-treated brick [e.g. painted; limewashed], Surface-treated stone [e.g. painted, limewashed], Tile-hung, Timber-clad, Timber-framed, Other, Uncertain/Unknown.) Recorded by placing a cross in relevant box(es).
- Material of Roof covering visible when viewing Main Elevation as marked on the map. (One or more of: Concrete, Felt [including felt and chippings], Metal, Slate, Stone, Thatch, Tile – traditional (vernacular), Tile – modern, Other, Uncertain/

Unknown.) Recorded by placing a cross in relevant box(es).

- **Windows in Main Elevation as marked on the map. Number of window openings with frames of each of the following materials: Metal, Plastic, Wood, Other, Uncertain/Unknown, and Total number of window openings in the main elevation. Recorded by numbers in relevant boxes.**
- Roof Lights visible when viewing Main Elevation as marked on the map. Number of roof lights. Recorded by numbers in relevant boxes.
- Aerials and Antennae visible when viewing Main Elevation as marked on the map. Numbers of traditional antennae and of dish-type aerials. Recorded by numbers in relevant box(es).
- Condition (One of Good, Fair, Poor, Very Bad.) These categories are those used for the Buildings at Risk Survey; for definitions of what each means and how they are to be applied, see Appendix 4. Recorded by placing a cross in the relevant box.
- Surveyor Name of fieldworker.
- Date of visit in the form dd/mm/yy.
- Negative Numbers of up to three 35mm photographs of the Main Elevation. If no photographs are taken, a cross should be placed in each box. (See Health and Safety, below, for further discussion of photography.) Negative numbers will be in the normal MF series for investigator snaps; blocks of numbers should be obtained by each team individually from Danny Parker (NMR, x 4756).
- Number of Photographs of the Main Elevation, up to a maximum of three. If no photographs are taken, a cross should be placed in each box. (See Health and Safety, below, for further discussion of photography).

*Health and Safety/Risk Assessment for Fieldwork*

With the exception of issues specifically discussed in this section, the generic Risk Assessment for Architectural Investigation (kept by line managers and the Operations Manager) applies to this project, items relating to livestock and vicious animals being rated at the higher end of the normal range and treated with appropriate caution.

In the wake of Foot and Mouth Disease, and against the general background of pressures on the rural economy, as well as of issues of public concern recently raised by some in relation to the Images of England project, staff may expect owners and/or occupiers to be guarded, and a proportion to be hostile to the work they are undertaking. Some owners may also be suffering 'survey fatigue' following the last Countryside Survey and the usual round of agricultural inquisitions into their activities. As a precaution, for the purposes of the Pilot Project, the risk posed by hostile owners/occupiers is rated as High. Various strategies and arguments may be deployed to reduce the risk to individual colleagues.

- Site visits must never be made by unaccompanied staff.
- An English Heritage identity card will be provided to all those involved, and should be shown to owners/occupiers by way of introduction. (Humphrey Welfare has taken responsibility for the supply of cards.)
- An explanatory sheet concerning the project will be provided to all those involved, and should be handed to owners/occupiers by way of introduction.
- It should be explained that the Survey is a Pilot for the creation of additional information for the established Countryside Survey, and that data collected
    1. is only to be used to create statistical summaries concerning changes to buildings;
    2. has no relevance to Listing or other forms of designation;
    3. will not be used to tell people what they should, can and cannot do with their buildings;
    4. is confidential – that is, only the statistics extracted at the end will be made public in any way, not the records for individual buildings; both the maps and the forms will be confidential to those running the Survey.
    5. is confidential – it can be demonstrated to owners/occupiers that the Field Recording Form contains no reference to owners or occupiers.
- A blank copy of the Field Recording Form should be left with any owner/ occupierwho asks for one, and the completed copy may be shown to him or her, if requested.
- Specific sensitivities may relate to the taking of photographs. Permission should openly be sought; if it is denied, fieldworkers should give explicit confirmation of their understanding, and should abide by the agreement. It would be advisable for fieldworkers not to carry cameras on the first approach, but only to fetch them once permission for their use has been granted.
- Once the objectives of the Survey have been explained to owners/occupiers, access should be requested in the normal way: that is, a request for immediate access, if that is convenient, or an appointment if not.

*If, despite their following the above suggestions and observing normal courtesy, fieldworkers are denied access, they should thank the owner/occupier and leave the premises, making it clear that they will not return. A note should be made of the number of sites where access is denied, and, at the end of fieldwork, should be passed, with all the completed forms, to Paul Barnwell.*

If at any time fieldworkers feel threatened, whether physically or verbally, they should politely leave the premises and not return. Incidents of this nature should be noted as sites where access is denied (above), but should also be reported to Paul Barnwell or Colum Giles as soon as is reasonably possible. Remember that it is better to walk away than to get into difficulties or danger.

**Recording of Time**

*Part of the purpose of the Pilot Project is to establish the resources necessary to conduct the full*

*initial survey on all 273 kilometre squares. Fieldworkers should note the number of person days (to the nearest half day) spent on each square, and should forward the information to Paul Barnwell at the end of fieldwork. (Please note that this is not intended to be another means of checking up on colleagues - the overall time each person spends on the project will in any case be recorded in the normal Quarterly Reporting process.)*

*Equipment*

All equipment can be supplied from normal team kit. T&S will be claimed in the normal way from the usual budgets, using the code T on the forms sent to Gillian Green.

*Data Analysis*

On completion of fieldwork, all forms, maps, photographs, time records and other documentation should be sent to Paul Barnwell in York. The names of any Listed Buildings encountered will then be double-checked against the Lists by Gillian Green, and the forms and maps forwarded to the NMR for final checking, database entry, collation and analysis.

*The Future*

Once fieldwork is completed, members of the Buildings team will be called together for a formal de-briefing. At that stage we shall seek to draw together any problems with access, difficulties with the methodology outlined in this document, and any improvements which can be made.

Once the NMR has analysed the data, the Project Board will conduct a post-project review of the Pilot Project. Assuming no insuperable problems have occurred, the Project Board will consider how to take matters forward to a full survey, and negotiate entry into the next full Countryside Survey in 2006.

*Timetable*

The Project Board has already agreed that fieldwork for the Buildings component of the Pilot Project should be completed by the end of December 2002. Architectural Investigation itself, however, has a strong preference for completing fieldwork earlier than that, and we should aim for our work to be finished before the clocks change at the end of October, particularly in view of the desirability of photography. This is the timetable already noted in Forward Job Plans.

*Paul Barnwell 24 July 2002*

# APPENDIX 1: KILOMETRE SQUARES FOR USE IN PILOT PROJECT 2002-3

The following 1km squares are those which will be used for the Pilot Project for the candidate Heritage Layer of the Countryside Survey.

| County | CS Square Number | NGR | Office |
|---|---|---|---|
| Cambridgeshire | 366 | | Cambridge |
| Derbyshire | 548 | | Cambridge |
| Norfolk | 480 | | Cambridge |
| Norfolk | 482 | | Cambridge |
| Norfolk | 513 | | Cambridge |
| Northamptonshire | 391 | | Cambridge |
| Nottinghamshire | 552 | | Cambridge |
| Essex | 279 | | London |
| Kent | 195 | | London |
| Greater London | 189 | | London |
| Oxfordshire | 242 | | London |
| Suffolk | 398 | | London |
| West Sussex | 91 | | London |
| Avon | 179 | | Swindon |
| Cornwall | 6 | | Swindon |
| Cornwall | 13 | | Swindon |
| Cornwall | 15 | | Swindon |
| Devon | 35 | | Swindon |
| Dorset | 55 | | Swindon |
| Hereford & Worcs | 385 | | Swindon |
| Cleveland | 713 | | York |
| Cumbria | 703 | | York |
| Cumbria | 705 | | York |
| Lancashire | 617 | | York |
| Lancashire | 642 | | York |
| North Yorkshire | 678 | | York |

■ Please note that the grid references of CS kilometre square transects are not in the public domain and have therefore been omitted from this document.

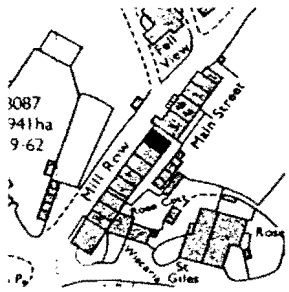
# APPENDIX 2: ENGLISH HERITAGE COUNTRYSIDE SURVEY PROJECT MANAGEMENT

**Members of the Project Board for the Pilot Project, 2002-3**

Humphrey Welfare (Chairman)
Pete Topping (Project Manager)
Paul Barnwell (Project Manager – Buildings)
Bob Bewley
Nigel Clubb
Paul Everson
Graham Fairclough
Colum Giles
David Graty
Duncan McCallum
Bas Payne
Steve Trow

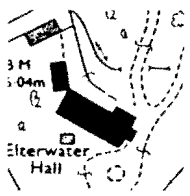
**Members of the Buildings Project Team for the Pilot Project, 2002-3**

Paul Barnwell (Project Manager)
Garry Corbett (Assistant Project Manager)
Ursula Arthur
Jon Clarke
Imogen Grundon
Jo Smith
Simon Taylor
June Warrington
Andrew Williams
Gary Winter
Nicola Wray



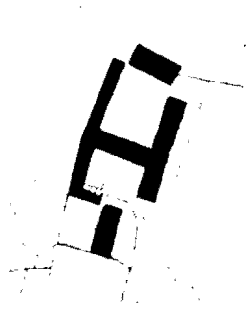
# APPENDIX 3: EXPLANATORY DIAGRAMS

213/15




a

266/4 266/3



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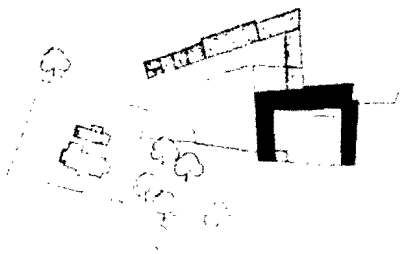

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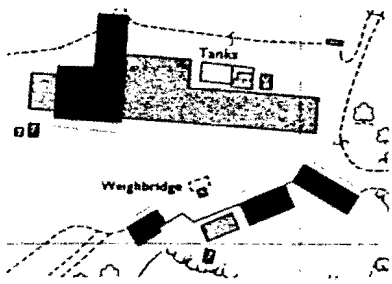


d

# APPENDIX 4: CONDITION – CATEGORIES AND EXPLANATION

## Definition of Categories

The Condition of buildings is to be noted using the categories applied to the Buildings at Risk Survey. The definitions used there are as follows.

- Good means structurally sound, weather-tight and with no significant repairs needed.
- Fair means a building which is structurally sound, but in need of minor repair or showing signs of a lack of general maintenance.
- Poor means a building or structure with deteriorating masonry and/or a leaking roof and/or defective rainwater goods, usually accompanied by rot outbreaks within and general deterioration of most elements of the building fabric, including external joinery; or where there has been a fire or other disaster which has affected part of the building.
- Very Bad means a building where there has been structural failure or where there are clear signs of structural instability; (where applicable) there has been loss of significant areas of the roof covering, leading to major deterioration of the interior; or where there has been a major fire or other disaster affecting most of the building.

While the Countryside Survey seeks to adhere to these general definitions, not all elements of the above are susceptible to cursory external examination, nor are those undertaking the fieldwork qualified Chartered Surveyors. What is recorded is therefore the layman's best estimate, **based on viewing the exterior of the Main Elevation.**

**F** Repair scheme in progress and (where applicable) end use or user identified; functionally redundant buildings with new use agreed but not yet implemented.

# A COPY OF THE ENGLISH HERITAGE PILOT PROJECT INTRODUCTORY LETTER FOR LANDOWNERS

ENGLISH HERITAGE

**English Heritage**

English Heritage is the Government's main adviser on all matters relating to the historic environment. It is probably best known to many people as the body which maintains and opens to visitors properties in State care, such as Stonehenge, or as the organisation which advises the Government on the statutory protection of buildings and archaeological sites. English Heritage is also involved in a wide range of activities including education programmes designed to improve visitor awareness and understanding of our historic environment.

**The Countryside Survey: English Heritage Pilot Project 2002-3**

The aim of this EH Pilot Project is to test the feasibility of creating a heritage layer for the quinquennial Countryside Survey, which is a national survey designed to monitor change in the rural environment. The Countryside Survey is sponsored by the Department of the Environment, Food and Rural Affairs (DEFRA) and the Natural Environment Research Council (NERC) and takes place cyclically every 7-10 years.

The EH Pilot Project will create a series of indicators which can be used to monitor change in the historic environment. Fieldwork is designed to be rapid and simply check the survival of archaeological sites or historic buildings. A checklist will quantify anything which might have changed since the last record was created, and photographs may be taken (with permission) to record any points of interest. No drawn surveys are expected with this project. All information gathered will remain confidential and will only be used to compile statistical data.

The integration of heritage information into the Countryside Survey will help DEFRA achieve its aim of *'basing policy on high quality evidence-based analysis'*. It will begin to place the evolution of the natural environment into its historic context so that we might see landscape changes over a much longer timescale than is currently possible. In addition, the project will provide information on national land-use trends that will help to identify any threats to our heritage.

Contact information

The Project in your area is being conducted by staff from the (WHICH) office of English Heritage: (PUT IN ADDRESS)

(tel no) – Project Officer (ADD NAME)
(tel no) – Project Officer (ADD NAME)

Further information can also be obtained from:
Dr Paul Barnwell (01904 601 913) – Operations Manager, Architectural Investigation
Peter Topping (01223 582 773) – Operations Manager, Archaeological Investigation

# ARCHAEOLOGY MODULE REPORT

*Peter Topping*

Aims and objectives of the Pilot Project

- *To test the feasibility of creating a heritage layer for the quinquennial Countryside Survey (CS).*
- *Design a methodology to monitor change through the present condition of the Historic Environment*
- *To assess the costs for full participation in the next CS.*

## 1. Summary of Progress

1.1 The Archaeology Module of the Countryside Survey Pilot Project was undertaken over the autumn/winter of 2002-2003 by the Archaeological Survey and Investigation(AI) team. The Pilot Project was designed to field test a method for creating an Archaeology Module as a component part of a heritage layer for the quinquennial Countryside Survey (CS) in conjunction with the Buildings Module, all facilitated by the work of the NMR teams and Aerial Survey.

1.2 The aim of the Archaeology Module was to test a methodology for creating a baseline heritage data set to record and monitor change to the historic environment at set intervals in the future.

1.3 The Archaeology Module followed the PD and undertook a field assessment of a ten per cent sample, comprising 26 of the current designated CS kilometre squares. The same choice of sample squares was used for the Buildings Module of the Pilot Project.

1.4 The existing data sets as supplied to field teams for the Archaeology Module, derived from the NMR and some HERs, was only a partial record of the surviving historic environment, as anticipated. Consequently, only those monuments that had existing records could be assessed for change. The full testing of any universal *'indicators of change'* in the historic environment must await the completion of the baseline data set, possibly as late as the second CS featuring the heritage layer in *c.*2016 – unless the baseline data was created before the next CS.

1.5 The Archaeology Module was completed between September 2002 and February 2003 following the agreed schedule in the PD. The records generated by the fieldwork were passed to the NMR in March 2003 on schedule. All fieldwork was completed to the

specification outlined in the Archaeological Fieldwork Manual [drafted by PT; produced 16th September 2002].

## 2. Time/Cost

2.1 The Pilot Project, comprising 26 x 1 kilometre square sample areas, took 63.5 man days of staff time to complete by the Archaeological Survey and Investigation team (see Appendix 1 for details). The Pilot Project involved staff based in all four offices, i.e. Cambridge, Exeter, Swindon and York.

2.2 The teams spent a total of 31 man-days in the field (18 payband B; 9 payband C; 4 payband D), and 32.5 man-days in the office (19.5 B; 9 C; 4 D). These timescales averaged out at 1.19 man-days fieldwork per sample area (within the parameters of 0.5 a day to a maximum of 2 days for the busiest sample areas). Office work averaged out at 1.25 man-days per sample area (within parameters of 0.5 to 3 days).

2.3 To ensure understanding and consistency, a payband B met and discussed the project with all four teams, spending an additional 4 man days doing this.

2.4 T&S costs were £1,043.75. This excludes petrol and the hire costs for the use of official pool cars.

## 3. Problems encountered during and after fieldwork

3.1 The fieldwork and data collection methodology adopted from the PD worked well in the field, despite the initial unfamiliarity of AI staff with in-house procedures such as plough damage and risk assessments. The facts that the methodology worked and the estimated timetable in the PD was much reduced during the Pilot Project can only bode well for future participation. Consequently, the Pilot Project can be considered a success overall, although a number of issues were noted which will need to be considered if a full Survey proceeds.

3.1.1 Site location information was not always clear.

3.1.2 Many of the new aerial photographs taken for the Pilot Project were not delivered to the field teams.

3.1.3 HER information was patchy across the country.

3.1.4 The plough damage and risk assessment templates are workable but have inherent conflicts caused by the fact that they place a conservation value on the

historic environment whereas Archaeological Survey and Investigation record it from the perspectives of analytical landscape archaeology. For example, historic stone extraction quarries could be seen as both an important monument in a local sequence by AI but as a threat by scheduling and designation teams if they were still active. In addition, more obscure forms of historic evidence for the archaeological study of landscape development *and* environmental studies also needs consideration, such as pollarded or coppiced woodland which record past land use strategies (i.e. timber harvesting) but as evidence have an in-built threat from old age which will ultimately lead to the loss of this type of information.

3.1.5 The new OS Landline digital mapping does not include publication or revision dates, therefore it is difficult to use them as a chronological tool in the field in the way the old hard copy 1st / 2nd Editions were. Some form of benchmark publication date is needed.

3.1.6 Access arrangements were only problematic at one sample square in Cumbria.

## 4. Issues for the future

4.1 Participation in the Pilot Project raised a number of issues that will need consideration for any future involvement in the full CS. These issues can be divided into operational or technical aspects, and those of a methodological nature.

4.1.1 Operational/technical issues

- Digital photography would be a useful and rapid means of recording change and increase the range and robustness of the archive;
- Hand-held GPS could help to quickly locate sites in areas where no hard control exists;
- Other archives could usefully be assessed in advance, possibly by AI staff for a small increase in time, to provide a more holistic view of the historic environment and a better contextualisation of the component parts of the archaeological record to create a near definitive baseline data set from which to more accurately monitor change;
- Sketch maps could be created in the field to loosely locate archaeological features on the Landline maps, and thus increase the quality of the project archive;
- Better co-ordination is required to ensure that new aerial photographs feed into the fieldwork cycle;
- For ease of field collection, downloading, analysis and curation, the

flowline of data from the field to the archive should be fully digital.

4.1.2 Methodological issues

- Archaeological fieldwork would best be undertaken in the winter/spring to avoid vegetation problems masking the field remains. Such timing may create a disjunction with that of the environmentalists affecting data collection timescales and possibly access;
- Participation in the full CS will help to identify possible biases in the extended national databases curated by the NMR and HERs and therefore test the validity of current assessments of the historic environment;
- The preliminary detailed recording and analysis of the historic environment enclosed within the CS sample areas from a range of archives would create a more precise chronological understanding of landscape development, and thus a more robust baseline data set for contextualising change. Such an exercise would only be needed for the first survey and could be undertaken by the AI field teams for the investment of an additional *c.*2-3 days per km square. A major consideration is whether it would be advantageous to develop the baseline data *before* the next CS, and thus bring forward the point when indicators of change can be used, trends identified and the information input to the CS report for consideration by the government;
- The question of monitoring change to the 'buried' historic environment needs some consideration. Clearly change to the land surface can equally affect the hidden archaeology below ground, and it may be possible to develop rapid methods of monitoring change to this aspect of the record, perhaps by CfA.
- Palynology could be a useful tool in monitoring long term change to the environment, allowing contrasts between past biomes and the living ecosystem. Such a technique can also be used to identify long-term trends such as the identification of the effects of grazing intensity in some uplands, which has led to a decline in bio-diversity [inf. A. Davies]. Techniques for rapid fieldwork and data analysis could perhaps be developed by CfA;
- The presence of National Parks, ESAs, etc, and their statutory effects influencing preservation, need to be registered in the CS records as a potential bias;
- Historic Environment data could produce the potential for a conflict of interest between environmental and heritage issues, particularly over preservation strategies which might not always best suit the conservation of both the built and the natural environment;

- The level of detail recorded by the Pilot Project needs to be assessed to determine whether it has an appropriate fit to meet the needs of the CS;
- The ephemeral or hidden nature of certain forms of field evidence emphasises the fact that monitoring change in the countryside can best be undertaken by ground-based survey, which can identify and interpret low earthworks or access woodland.

## 5. An assessment of the costs for full participation in the next Countryside Survey.

5.1 Despite initial scepticism in some quarters of the team, once completed the Pilot Project was universally welcomed by the AI teams and considered successful at achieving its aims. The Pilot Project made good use of the AI team's observational skills to create a record that accurately identified, interpreted and characterised the component parts of the historic environment and assessed the level of change since the previous record (where such existed). Such field skills are not readily available outwith EH.

5.2 Projection for full participation by Archaeological Investigation

By using the collected fieldwork data from the Pilot Project it is possible to project the potential costs for full participation in the CS in a variety of ways. The estimates presented below are based upon the Pilot Project being a 10% sample of the full survey.

*Table 1: Alternative estimates for full participation in the Countryside Survey by Archaeological Investigation.*

| **Scenario 1** | | |
|---|---|---|
| *Undertake survey in same manner as Pilot Project* | *Pilot Project results* | *Full participation estimate* |
| **Total number of man days** | 63.5 | 635 |
| **Staff costs** [1] | £11,840 | £118,400 |
| **T&S costs** | £1,043.75 | £27,140 |
| Estimate of 'average' fuel consumption costs based upon 400 miles per sample square per week @ 40p per mile | £4,160 | £41,600 |
| Contingency fund | | £10,000 |
| **Total** | 63.5 man days at a cost of £17,043.75 | 635 man days at a cost of £187,150 |
| **Scenario 2** | | |

| | | |
|---|---|---|
| *Undertake survey in same manner as Pilot Project but with additional preliminary research into landscape development as a one-off cost to create a robust first baseline data set* | Pilot Project results | Full participation estimate |
| **Total number of man days** | 63.5 + 3 days maximum per CS square = 141.5 | 1,415 |
| **Staff costs** | £26,270 | £262,700 |
| **T&S costs** | £1,043.75 + 2 nights & 1 day T&S = £4,453.65 | £44,540 |
| Estimate of 'average' fuel consumption costs based upon 500 miles per sample square per week @ 40p per mile | £5,200 | £52,000 |
| Contingency fund | | £10,000 |
| **Total** | | 1,415 man days at a cost of £369,240 |

*Table 2: A sketch of the estimated costs for full participation in the Countryside Survey for Aerial Survey, Archaeological Investigation, Historic Buildings and the NMR teams.*

| **Scenario 1** | | |
|---|---|---|
| *The costs of full participation based upon Pilot Project results or estimates where full details are unknown. AI costings are as in Scenario 1 in Table 1 above.* | Pilot Project results / estimates | Full participation estimate |
| Aerial Survey | £2,000 for AP checking<br>£2,000 for flying 26 sq kms<br>Staff costs unknown | £20,000<br>£20,000<br>£10,000 contingency |
| Archaeological Investigation | £17,043.75 | £187,150 |
| Historic Buildings | £575 T&S<br>£10,363.50 staff costs | £10,000 T&S<br>£103,635 staff costs<br>£52,000 travel costs<br>£10,000 contingency |
| NMR | Staff costs unknown<br>Copies of historic mapping at £3,000 | Staff time |
| **Total** | £24,618.75 | £309,150 |
| **Scenario 2** | | |

| *The costs of full participation based upon Pilot Project results or estimates where full details are unknown. Al costings are as in Scenario 2 in Table 1 above.* | Pilot Project results / estimates | Full participation estimate |
|---|---|---|
| Aerial Survey | £2,000 for AP checking<br>£2,000 for flying 26 sq kms<br>Staff costs unknown | £20,000<br>£20,000<br>£10,000 contingency |
| Archaeological Investigation | | £369,240 |
| Historic Buildings | £575 T&S<br>£10,363.50 staff costs | £10,000 T&S<br>£103,635 staff costs<br>£52,000 travel costs<br>£10,000 contingency |
| NMR | Staff costs unknown<br>Copies of historic mapping at £3,000 | Staff time |
| **Total** | | £228,540 |

The estimates presented in Table 2 contrast interestingly with the original estimates drafted in October 2001 that suggested a 'worst-case' estimate for full participation of approximately £240,000. The results of the Pilot Project suggest that a real figure may be slightly lower than the original estimate and of the order of £228,540. The fieldwork estimates above of roughly 14 weeks for full team participation in Archaeological Survey and Investigation are also close to the original estimate of 16 weeks.

## 6. Recommendations

6.1 The successful completion of the Archaeology Module confirms that EH has the necessary in-house expertise and resources to undertake the full CS within the considerations of organisational priorities and the necessary caution of funding availability. An additional consideration is the need to set aside some 14 weeks of the field teams timetable to undertake this valuable work, although it should be borne in mind that this would only be a cyclical commitment every 7-10 years as events stand at present.

6.2 Full participation in the CS would allow EH the opportunity to become more involved in a process which directly influences government rural policy making decisions, and could also usefully feed into the SHER process by producing headline trends based upon a robust national baseline data set and expert field assessment.

6.3 The creation of a 'heritage layer' would increase the value of the CS by adding greater time depth (beyond the present limit of 1977) to its deliberations on the context of rural change.

6.4 Overall the results of the Archaeology Module clearly illustrate that EH has the capacity to undertake full participation in the CS and the political benefits resulting from such participation would place the organisation firmly in the government's rural agenda loop. Consequently this report recommends that EH should seek membership of the CS partnership as a matter of urgency to establish the foundations for participation in the quinquennial survey.

*Peter Topping*
*Wednesday, 14 May 2003*

# APPENDIX 1: DETAILED TIME/COSTS FOR ARCHAEOLOGICAL SURVEY AND INVESTIGATION ACTIVITY DURING THE PILOT PROJECT

| CS | County | # man-days in field | # man-days in office | Total # man-days | # sq.s by Payband B | # sq.s by Payband C | # sq.s by Payband D | T&S costs [excl. petrol & vehicle hire] |
|---|---|---|---|---|---|---|---|---|
| 6 | Cornwall | 2 | 1 | 3 | 4 | | | £131 |
| 13 | Cornwall | 1.5 | 0.5 | 2 | 4 | | | £71.15 |
| 15 | Cornwall | 1 | 0.5 | 1.5 | 4 | | | £11.15 |
| 35 | Devon | 1 | 1.5 | 2.5 | | 4 | | £11.15 |
| 55 | Dorset | 1 | 0.5 | 1.5 | 4 | | | £11.15 |
| 91 | West Sussex | 1.5 | 2 | 3.5 | 4 | | | £71.15 |
| 179 | Avon | 1 | 0.5 | 1.5 | | 4 | | £11.15 |
| 189 | Greater London | 2 | 3 | 5 | 4 | | | £22.30 |
| 195 | Kent | 1 | 1.5 | 2.5 | 4 | | | £11.15 |
| 242 | Oxfordshire | 0.5 | 1 | 1.5 | | 4 | | £4.25 |
| 279 | Essex | 0.5 | 1 | 1.5 | | 4 | | £4.25 |
| 366 | Cambridgeshire | 0.5 | 0.5 | 1 | 4 | | | £4.25 |
| 385 | Worcestershire | 2 | 2 | 4 | | 4 | | £22.30 |
| 391 | Northamptonshire | 1.5 | 2 | 3.5 | 4 | | | £71.15 |
| 398 | Suffolk | 0.5 | 0.5 | 1 | 4 | | | £4.25 |
| 480 | Norfolk | 1 | 0.5 | 1.5 | 4 | | | £11.15 |
| 482 | Norfolk | 0.5 | 0.5 | 1 | | 4 | | £4.25 |
| 513 | Norfolk | 1 | 0.5 | 1.5 | | 4 | | £4.25 |
| 548 | Derbyshire | 1 | 2.5 | 3.5 | 4 | | | £64.25 |
| 552 | Nottinghamshire | 1 | 1 | 2 | 4 | | | £11.15 |
| 617 | Lancashire | 1.5 | 2.5 | 4 | 4 | | | £131.15 |
| 642 | Lancashire | 2 | 2 | 4 | | | 4 | £131.15 |
| 678 | North Yorkshire | 1 | 1.5 | 2.5 | | 4 | | £11.15 |
| 703 | Cumbria | 2 | 2 | 4 | | | 4 | £131.15 |
| 705 | Cumbria | 1.5 | 0.5 | 2 | | 4 | | £71.15 |
| 713 | Cleveland | 1 | 1 | 2 | 4 | | | £11.15 |
| | | | | | | | | |
| | | 31 | 32.5 | 63.5 | 15 | 9 | 2 | £1,043.75 |

# BUILDINGS MODULE REPORT

*Paul Barnwell*

## 1. Summary of Progress

1.1 During the autumn of 2002 a Pilot Project was conducted to test a methodology for creating a Buildings Module for a historic environment component of the quinquennial Countryside Survey (CS). The Buildings Module forms part of a larger Pilot Project under the overall management of Peter Topping (Archaeology Department).

1.2 The aim of the Buildings Module Pilot was to test a method of establishing base-line data against which the extent and nature of change could be assessed at intervals in the future.

1.3 In common with the Archaeology Module, the Pilot was conducted on a ten *per cent* sample of the designated kilometre grid squares used by the established CS, extending to some 26 such squares. The same squares were used for both modules of the Pilot.

1.4 Since there is no historic data against which to compare the information gathered, it is not possible at this stage to analyse the material to produce the Indicators of Change. Final testing of the Indicators and methodology must wait until the sample buildings are re-visited, perhaps in the course of the next full CS. At that point, base-line data for the whole CS sample will be gathered, so that the first full test of the Indicators and method will not be achieved until the second full CS survey from now — perhaps ten years away.

1.5 Fieldwork for the Buildings Module of the Pilot Countryside Survey was completed in the last quarter of 2002, in accordance with the timetable agreed in June 2002, and material will be sent to the NMR during the first week of February. Fieldwork was conducted to the specification contained within the Manual for the Buildings Module circulated to members of the Project Board and to the project staff in summer 2002.

## 2.1 Time/Cost

2.1 The Pilot Project (26 grid squares – see 1.3) took approximately 63.5 days of staff time in the Historic Buildings and Areas Department (i.e. excluding NMR time), and involved colleagues from all four offices where staff of the Historic Buildings and Areas Department (HBAD) are present (Cambridge, London, Swindon and York).

2.2 The main teams spent 41 days in the field (27 payband C; 14 payband D), and 15.5 days in

the office (9.5 C, 6 D). In addition, 1 day (E) was spent on administration. To ensure some consistency between teams and to pick up early problems, a payband B visited each of the four teams, spending an additional 6 days in the field.

2.3 T&S costs were approximately £575. This excludes petrol/vehicle hire (since pool cars were used), but includes rail travel for the payband B. Photographic costs were not itemised, but could be recovered by counting the number of 35mm frames used (as noted on the forms) or the number of prints created (included with the forms).

## 3. Problems Encountered During and After Data Collection

3.1 On the whole, the suggested method for the gathering of data for the Buildings Module was has stood up to use in the field, and the task was achieved within the estimated time, and with a reasonable margin of error. The Pilot may therefore be considered a success, though inevitably a few issues were identified which need to be considered for action if the full Survey proceeds.

3.1.1 Teams adopted different protocols in relation to access, though none gave owners/ occupiers advance notice of the Survey, it being agreed at the outset that such a procedure would add very significantly to the overall time taken, particularly to juggle appointments (if required) so as to minimise travel. On arrival at a site, one team tried to make contact with owners/occupiers and, while waiting on the doorstep gathered the required data; another team did not gather the data (even when visible from a public place) unless contact with an owner/occupier was established and permission explicitly granted; on other occasions practice lay between these two poles. The result is that the proportion of sites surveyed varies across the country, but some data was recovered everywhere; the proportion of blank returns has not been quantified.

3.1.2 For one CS square no second edition 25" map (the base-line for the buildings module) was available, so that eligible buildings had to be established from the first edition combined with field observation. This was not a great problem, but could become significant if second edition maps were unavailable for a number of squares in a full survey.

3.1.3 For one upland CS square there was no 25" mapping, and a base-line was established from the 6" maps, from APs which the Archaeological Survey team had ordered, and by collaboration with colleagues in Archaeological Survey.

3.1.4 The candidate buildings (i.e. those shown on both the second edition and modern maps) were marked by colleagues in the NMR; there were a few problems of identification, with the result that field staff double-checked the data, but that is probably a necessary process.

3.1.5 The modern maps as supplied were in colour, and it was not possible to use them since the method for the Buildings Module required the addition of further coloured lines. The pragmatic solution was to make black-and-white copies. Although this was an additional expense, it would only have to be borne once, for the complete base-line survey, if the project is extended and carried forward.

3.1.6 A few minor modifications (additions) were suggested to the field recording form, which have been noted elsewhere for future reference.

3.1.7 From checking a sample of the forms against the photographs, it is apparent that there are several instances where the data entered on the forms does not reflect what is clearly visible on the photograph. This has not been quantified, but suggests that there may be a need for more systematic checking to avoid junk data.

## 4. Issues for the Future

4.1 During the course of the Pilot a number of issues which should affect decisions concerning the future of the Project have become clearer.

4.1.1 The 26 sample squares do not initially appear to provide a representative sample of the built historic environment of the countryside. If it is desired to continue to the full Project, the remaining 90% of the squares should first be assessed to see if the complete CS sample provides a reasonable cross-section of rural buildings and locations. It is possible that squares initially selected for purposes connected with the natural environment may not provide such a sample. Should that be the case, the validity of using the CS sample as a basis for creating Indicators of Change for the built historic environment would be called into serious question.

4.1.2 Analysis should be conducted to ascertain whether the costs of the full survey are justifiable and proportionate in relation to the required outcomes. Conducting the full survey would allow for some economies of scale in relation to travelling time, but would lead to a much higher number of overnight stays, with an attendant rise in T&S costs.

4.1.3 The useful yield of the data gathered from the CS Pilot should be compared with that of the more restricted Audit and Evaluation of Historic Farm Buildings (which only deals with farm buildings, and only those which are Listed) which EH has commissioned from the Countryside and Community Research Unit at the University of Gloucestershire, and comparative cost-benefit analyses undertaken.

4.1.4 Following the publication of SHER 2002, a fresh assessment should be made of the appropriateness of the level of detail collected during the Pilot, and of the proposed Indicators for Change. It is likely that DEFRA and ODPM only require (or will only pay attention to) one or two head-line Indicators. EH may have its own reasons for seeking additional data, but the need for such information, together with its nature, should be re-assessed from first principles, particularly in the light of Modernisation.

4.1.5 While there is an attraction in latching on to the CS, with which the Government is familiar, and particularly if Archaeology Department proceed to the full Survey, any approach to SHERs for the built historic environment should allow comparisons between rural and urban areas. This demands a common methodology and set of Indicators of Change. The present method is not transferable to towns, and it would be inefficient and otiose to run two rural surveys (one for CS the other for the wider SHERs of for the built environment).

## 5. Recommendation

5.1 In the light of the comments in Section 4, of the Modernisation of EH and of the needs of SHERs, the continuation of the Buildings Module of the Countryside Survey needs to be fundamentally re-thought. In particular, it should be considered whether the vast amount of data relating to buildings which flows into EH through the planning system could not be exploited to obtain an appropriate picture of changes in the built historic environment, rather than EH committing itself to additional expensive fieldwork. It is therefore recommended that the future of the Buildings Module of the CS should form part of the review of the input to SHERs for the built environment currently being undertaken (alongside a review of Statutory Recording) by a working group within HBAD.

*Paul Barnwell*
*27 January 2003*

# NATIONAL MONUMENTS RECORD REPORT

*David Graty*

## 1. Summary of Progress

1.1 During autumn/winter 2002-2003 a pilot project was conducted to test the feasibility of creating a heritage layer for the quinquennial Countryside Survey (CS). The Data Management Unit (DMU) of the National Monuments Record (NMR) participated fully in this process.

1.2 The DMU collated data for the 26 CS Km squares chosen for the pilot. For each square this comprised obtaining relevant 1st and 2nd edition OS large scale (25") county series maps, producing copies of the maps, producing HSIS plots for each Km square with OS LandLine as the base, conducting limited desk based enhancement of the NMR data set, obtaining HER/HER data, managing data supply and return, and undertaking database input.

1.3 Data was supplied to Archaeological and Architectural Survey Teams in September 2002 following the agreed schedule in the PD. For each Km square this comprised two packs (one for Archaeological Survey and one for Architectural Survey) comprising a check list, printed reports for all site records in the existing data set together with HSIS site centred plots, copies of OS county series maps (Architectural Survey requested the 2nd edition only), and HSIS LandLine plot.

1.4 The existing data set was only a partial record of the surviving historic environment, as anticipated and a significant number of new archaeological and architectural records were created by the Survey Teams (see 6.2).

1.5 Fieldwork by the Survey Teams was completed and returned to the NMR in March 2003. The data was supplied as a mixture of paper forms (both hand written and typed) and word-processed files. Architectural Survey also included a photograph of each building. The resulting data was added to AMIE, where existing records were updated and new ones created, with appropriate spatial representations amended/generated in HSIS.

## 2. Time/Cost

2.1 The pilot project, comprising 26 X 1 Km square sample areas, took a total of 31 person days of staff time to complete by DMU staff.

2.2 The NMR supplied to the Survey Teams (two identical sets, one to Archaeology and one to Architecture):

- Checklist detailing contents of each Km square and including record numbers and map sheets numbers
- Printed NMR monument report and HSIS site centred plot for each site in the appropriate CS square
- Full copies of OS 25" county series 1st and 2nd editions (Architectural Survey requested 2nd edition only)
- HSIS plot with LandLine base showing distribution of sites within the square
- HER data. This was not present for most CS squares due to the active debate during the pilot regarding confidentiality of the CS squares location.

## 3. Problems encountered

3.1 Inclusion of HER/HER data was patchy.

3.2 Results produced by Archaeology and Architecture were different in a number of respects. For example different record forms were used for the two surveys, which added to the time for data input.

3.3 OS LandLine mapping did not include publication or revision data

## 4. Issues for the future

4.1 The Pilot Project raised few issues for the DMU.

- Obtaining and copying the OS county series maps by the DMU proved to be a considerable undertaking. There could be up to four county series sheets per edition for the relevant National Grid Km square; taking all the Pilot Project squares in to consideration this meant up to 400 copies of maps for the Archaeological and Architectural Teams. It is recommended that Survey Teams obtain their own copies of OS county series mapping for future CS work (it is possible that these

maps will be available to EH staff in digital form, but the timetable for this is unclear).

- Base map publication date. An HSIS upgrade in Spring 2004 should allow OS MasterMap to be available for future work. This should resolve the issue of the need for some form of benchmark publication date, but this will need to be confirmed. An alternative is to use the last printed edition of the 1:2500, but a decision is needed quickly as the NMR is about to dispose of it's paper map holdings

- Confidentiality concerns about the location of CS squares need to be resolved to ensure adequate inclusion of HER/HER data in future work.

- A single input form for Archaeological and Architectural would facilitate data input by the DMU and resulting analysis of the data.

## 5. Participation in future Countryside Survey Work

5.1 Involvement of the DMU in CS work is as a desk-based activity, and thus requires staff time rather than financial resource. The only additional cost identified is the sum of up to £3,000 for copies of OS county series mapping. As noted above, however, it is recommended that the Survey Teams obtain copies of maps locally.

5.2 By adjusting ongoing work programmes the DMU will have the resource and time required to participate in the full CS.

5.3 In addition to producing baseline data for the CS, survey work for the pilot provided added benefit for the NMR:

- a significant number of new discoveries were added to the record

- updates on the condition of monuments already recorded informs the NMR to Ordnance Survey flowline for the supply of heritage data

This benefit would obviously continue for the full survey.

## 6. Recommendations

6.1 The DMU should be involved in the full CS, as they were in the pilot, by collection and

database management functions. As noted above, this will require adjustment of other work programmes.

6.2 The CS squares provide a representative sample of the landscape of England. The pilot produced an increase in the number of recorded monuments of almost 200% for archaeology alone (see Appendix). Whilst inevitably some of these new sites may be considered of a 'minor' nature, for example Post Medieval agricultural remains, the discoveries also included monuments such as barrows, a possible Bronze Age round and Medieval field systems. This baseline information will in particular provide the tools to monitor change in the countryside and to enable modelling of future change.

6.3 The increase in recorded sites also demonstrates the potential for heritage data produced as part of the CS to provide a valuable statistical base that may inform other aspects of historic environment discussion. For example it is often claimed that there could be one million sites recorded in HERs/HERs. A representative survey such as the CS would, possibly for the first time, provide an accurate picture of historic environment survival.

6.4 The confidentiality issue regarding location of the CS squares should be resolved so that HER/HER data may be utilized in the full survey.

*David J Graty, January 2004*

# APPENDIX: NEW DISCOVERIES IN COUNTRYSIDE SURVEY SQUARES

| CS Square | County | Number of sites in existing data set | New sites (Archaeology) |
|---|---|---|---|
| 6 | Cornwall | 6 | 4 |
| 13 | Cornwall | - | 1 |
| 15 | Cornwall | 1 | 1 |
| 35 | Devon | 9 | - |
| 55 | Dorset | 5 | 4 |
| 91 | West Sussex | 9 | 90 |
| 179 | Avon | 4 | 2 |
| 189 | Greater London | 9 | 40 |
| 195 | Kent | 3 | 15 |
| 242 | Oxfordshire | 18 | 1 |
| 279 | Essex | 4 | 5 |
| 366 | Cambridgeshire | 5 | 8 |
| 385 | Worcestershire | 1 | 2 |
| 391 | Northamptonshire | 3 | - |
| 398 | Suffolk | 4 | 2 |
| 480 | Norfolk | 4 | 4 |
| 482 | Norfolk | - | 9 |
| 513 | Norfolk | 1 | 4 |
| 548 | Derbyshire | 5 | 41 |
| 552 | Nottinghamshire | 1 | 7 |
| 617 | Lancashire | 7 | 17 |
| 642 | Lancashire | 2 | 6 |
| 678 | North Yorkshire | 2 | 25 |
| 703 | Cumbria | 4 | 3 |
| 705 | Cumbria | - | 4 |
| 713 | Cleveland | - | 5 |
| | Total | 107 | 300 |

# COUNTRYSIDE SURVEY BUILDINGS MODULE - A NEW APPROACH?

*Paul Barnwell*
*Historic Buildings and Areas Research Department*

**Introduction**

At the meeting of the Countryside Survey (Pilot) Project Board on 19 May 2003, it was agreed that the scope and level of detail used for the buildings module were greater than is necessary, and that the exclusion of any significant element of the twentieth century from the definition of 'historic' is undesirable. In the course of discussion the possibility was raised of using he maps of the 1941–3 National Farm Survey as a basis of definition. These notes take that thought a little further, outlining the potential of the source, the changes which could be measured, a methodology and a way forward including some areas which would required further work if members of the Project Board think the ideas worth pursuing.

**Background to the National Farm Survey and its Maps**

The National Farm Survey of 1941–3 was heralded as a 'second Domesday' of agricultural land in England and Wales. It was ostensibly aimed at providing information to assist the effort to increase agricultural production during the Second World War, bit in reality was largely designed as a tool for post-War planning. The record is in two parts. The first consists of a series of forms, which include a more detailed version of the annual Crop Returns gathered every June since 1866; in total, the written part of the record includes details of the crops grown in 1941 on every agricultural holding five or more acres in extent, information on tenancy and ownership, the capabilities of the farmer, labour, sources of motive power and the facilities and condition of the farm and farmstead. Much of this was controversial at the time, and led to the records of the Survey being closed for fifty years, and to their not being used for detailed research. The second part of the record consists of a series of maps which, like those compiled for the 1910 Property Valuation, show the extent of each holding, either by colour washes or by bounding lines. The maps employed are a mixture of 6-inch OS sheets and 25-inch sheets photographically reduced to half size (though there are variations), editions varying from the early 1900s to the 1930s. Both the written records and the maps are held at the PRO, forming classes MAF32 and MAF73, respectively.

**The National Farm Survey and the Countryside Survey**

It is possible that the maps prepared for the National Farm Survey could provide an historic base-

line for the buildings element of the Countryside Survey. The sample of buildings used for the Countryside Survey would in that case be those buildings shown in the 1941–3 maps as lying on an agricultural holding of five or more acres. In deciding whether this would be an acceptable way

forward, a number of factors require consideration.

1. The maps should enable all farm buildings and associated houses in use for purposes related to agriculture, or forming part of an agricultural holding of five or more acres, in 1941–3 to fall within the scope of the Countryside Survey. Only buildings in those categories would be included: commercial, ecclesiastical, industrial, institutional and public buildings would lie outside the scope of the survey, as would domestic buildings other than farmhouses and some farm cottages.
2. The dates of the maps used vary (above), and any new agricultural structures erected between the completion of the maps and 1941–3 were not added (the purposes of the Survey did not require such additions to be made). In reality, this may not be a significant factor, even if the maps are the second edition 25-inch survey, since very few farm buildings were constructed from about 1890 to the 1940s.
3. The map series does not appear to have been completed, and it is possible that there have been some losses since the War. If it is thought that they offer a useful base-line for the Countryside Survey, research needs to be undertaken to establish the number of Countryside Survey kilometre squares for which maps are missing. If there are few gaps it may be possible to say that the buildings element simply uses slightly fewer squares than other parts of the Survey; if there are many, use of the National Farm Survey as the basis of the buildings element of the Countryside Survey would be precluded. (Checking will be time-consuming, as many of the maps date from the period before the National Grid was shown, and many kilometre squares span more than one old sheet.)
4. A view needs to be taken of the extent to which cottages can be associated with agricultural holdings of five or more acres. If a cottage was situated within the main block of land on a holding, either next to the farmstead or in isolation, the chances are that it will be included. If, however, its curtilege forms a detached portion of land in its own right (*e.g.*, it in a village street), it may not be marked as forming part of an agricultural holding, even if formed part of a nearby farm. This could be tested by examination of a sample of the maps. As with buildings constructed between the date of the OS survey and 1941–3 it may, however, be possible to side-step the issue by saying that the buildings used for the Countryside Survey are those which can be shown *on the evidence of the maps*, to have lain on an agricultural holding of five or more acres in 1941–3.

**Possible Measures of Change**

The questions which could be addressed by fieldwork in future surveys are:

1. whether the building fulfils a function primarily related to agriculture;
2. whether the building fulfils a function not primarily related to agriculture;

3. whether the building appears to have no economic function;
4. whether the building is a ruin;
5. whether the building has ceased to exist as more than earthworks.

A possible sixth question is would relate to assessing the condition of buildings, using the simplified BAR methodology tested in the 2002 Pilot (described in Appendix 4 of the Buildings Module manual). *Views on this specific matter are requested.*

These questions raise some matters of definition, upon which a view has to be taken.

1. The meaning of 'building'. This could usefully be changed from the definition used during the Pilot Project, since the structure and focus of the new survey is different, and might be along the lines of:

   - *Farmhouses*. Each farmhouse forms a single unit of record, no matter what its physical relationship to the farm buildings;
   - *Cottages*. A detached cottage is one unit of record; a semi-detached pair of cottages is also a single unit of record, as is a terrace;
   - *Farm Buildings*. Complexes of adjacent farm buildings form a single unit, whether the buildings are physically attached or not.

2. The meaning of 'a function primarily related to agriculture'. There are two elements to this:

   - the meaning of 'related to agriculture'. If the land is still used for agricultural purposes, and if the use of, or income from, the building appears directly to benefit the farmer's household (*e.g.*, holiday cottages), the building could be counted as 'related to agriculture' in the same way as a cottage would be. Hence, a barn converted into a ice-cream factory would be included if it formed part of a business which also farmed the land, but excluded if it formed part of a business with no agricultural element.
   - the meaning of 'primarily', which has to be included since many traditional farm buildings may only be partly in use for purposes related to agriculture. A pragmatic definition would be a that at least half the floor area of the building appears to be used for such purposes.

   Both definitions are subjective, but a degree of variation in interpretation will be inevitable if surveyors are to conduct the work from simple visual inspection (preferably external only) without making intrusive enquiries.

**Methodology**

The method adopted must involve direct input of all data to an electronic storage and handling system, and should be capable of being linked to other GIS detests, particular relating to Listed Buildings. If the project is to proceed, it must attract funding to enable this to happen and avoid the paperchase which the Pilot involved, and its attendant storage implications.

The primary record should be an electronic version of the map base, which would be linked to the simple database and to mapped Listed Buildings data. Ideally, one might also like to see links to Magic, so that the data could be seen in relation to administrative areas, Conservation Areas, etc. Since all that is required is statistical information, locational data apart from what is available from the map base is unnecessary.

The stages of the survey would be:

1. The copying in to a newly constructed database of the relevant sections of the appropriate historic Ordnance Survey maps (i.e. of the scale/edition used by the National Farm Survey) for each Countryside Survey square.
2. The highlighting on the maps in the database of the buildings shown on the National Farm Survey maps as lying on an agricultural holding of five or more acres.
3. In the field, the encircling and numbering of buildings or complexes (units of record) thus highlighted, as in the methodology tested during the 2002 Pilot Project (and described in the manual for the Buildings Module Pilot). The map record for each numbered building would be constructed to enable access direct from the map to the data, including the photographs (see below), for the successive Surveys.

Stages 1–3 would only be undertake for the first Survey.

Both the initial Survey and all subsequent ones would also include further elements:

4. Fieldwork to answer the range of questions outlined above, data for each numbered 'building' being input straight to the simple database.
5. Fieldwork also to include taking a single digital image of each 'building', to form a third element of the database. This will assist in identification, and allow new questions to be asked in future by comparing photographs of different dates.
6. Reporting to compile statistics relating to changes between 1941–3 and the date of each new survey, and between future surveys, as desired. A link from the maps to electronic maps of Listed Buildings will allow Listed sites to be identified, and provide basic address information without it having to be separately collected and recorded (though addresses are not really necessary since no NMR-type 'record' is being made).

**The Way Forward**

On order to make progress in time for the preparation of a funding bid in autumn 2003 (as suggested on 19 May), a way forward has to be found speedily, and initial work cannot wait until July when the Project Board will again meet. The following is therefore proposed:

1. Members of the Project Board to send comments on this document to Paul Barnwell by the end of 30 May.
2. Paul to collate the views received.
3. If those views are on balance in favour of proceeding in the way outlined above

   - Paul will revise the detail in the light of comment;
   - HBARD will then seek rapidly assessment the questions relating to cottages (if deemed important by members of the Project Board) and the extent of coverage of the full set of Countryside Survey Squares by National Farm Survey maps;
   - If the answers those questions are satisfactory, HBARD will work up an outline project design with costings, to act as part of a bid to DCMS/DEFRA for the necessary funds. **N.B. This will require assistance from outside HBARD, particularly in relation to GIS and database issues. Please suggest who should be asked to help with these matters.**

4. If, on the other hand, the views of the Project Board are not favourable to proceeding in the way outlined above, Paul will request further ideas by the end of June.

*Paul Barnwell*

*21 May 2003*

# 2005 COST ESTIMATES FOR ENGLISH HERITAGE PARTICIPATION IN THE COUNTRYSIDE SURVEY.

The following is an estimate of costs per sample km square based upon the 2003 English Heritage (EH) Pilot Project results, incorporating the work patterns suggested at the EH Countryside Survey Project Board Meeting held on 20th April 2004. The potential timescale for participation is also sketched.

*Pete Topping, Paul Barnwell, David Graty, Bob Bewley.*

*Thursday, 03 February 2005*

*Table 1*

| **Actual operational costs incurred during the 2003 CS Pilot Project per km sample square including staff costs, all archiving and data management tasks, all data collation and assessment activities, and all fieldwork, reporting and analysis.** | | | |
|---|---|---|---|
| *Description of tasks* | *Task details* | *Costs* | *Amount* |
| NMR input | ⊠ Updating records<br>⊠ Copying/collating historic mapping<br>⊠ Asses completeness of aerial photographic data through PhotoNet<br>⊠ Preparing materials for field teams<br>⊠ Inputting field records<br>⊠ Archiving field records<br>⊠ Electronic supply of end-data to the CS of text and spatial data | • Staff costs | £750 |
| Archaeological field investigation and historic buildings recording | ⊠ map regression analysis, AP retro-fitting (1 day)<br>⊠ fieldwork (5 days per sq km)<br>⊠ post fieldwork data processing and analysis of rates of change by the individual sample area (1 day) | • Staff costs<br>• T&S costs | £1,250 |
| Aerial Survey | ⊠ Checking aerial photos<br>⊠ GIS mapping of baseline data<br>⊠ Flying | • Staff costs<br>T&S costs | £800 |
| Total | | | **£2,800** |

*Table 2*






## *ENGLISH HERITAGE RESEARCH DEPARTMENT*

*English Heritage undertakes and commissions research into the historic environment, and the issues that affect its condition and survival, in order to provide the understanding necessary for informed policy and decision making, for sustainable management, and to promote the widest access, appreciation and enjoyment of our heritage.*

*The Research Department provides English Heritage with this capacity in the fields of buildings history, archaeology, and landscape history. It brings together seven teams with complementary investigative and analytical skills to provide integrated research expertise across the range of the historic environment. These are:*

* *Aerial Survey and Investigation*
* *Archaeological Projects (excavation)*
* *Archaeological Science*
* *Archaeological Survey and Investigation (landscape analysis)*
* *Architectural Investigation*
* *Imaging, Graphics and Survey (including measured and metric survey, and photography)*
* *Survey of London*

*The Research Department undertakes a wide range of investigative and analytical projects, and provides quality assurance and management support for externally-commissioned research. We aim for innovative work of the highest quality which will set agendas and standards for the historic environment sector. In support of this, and to build capacity and promote best practice in the sector, we also publish guidance and provide advice and training. We support outreach and education activities and build these in to our projects and programmes wherever possible.*

*We make the results of our work available through the Research Department Report Series, and through journal publications and monographs. Our publication Research News, which appears three times a year, aims to keep our partners within and outside English Heritage up-to-date with our projects and activities. A full list of Research Department Reports, with abstracts and information on how to obtain copies, may be found on www.english-heritage.org.uk/researchreports*

*For further information visit www.english-heritage.org.uk*

ENGLISH HERITAGE