

APPENDIX 2 - NMP METHODOLOGY

1.1 Introduction

The aim of NMP is to enhance the understanding of past human settlement, by providing primary information and synthesis for all archaeological sites and landscapes from the Neolithic period to the twentieth century.

NMP aims to do this to a consistent standard by interpretation, mapping, classification and description of all archaeological sites and landscapes in England which are visible on aerial photographs. This comprehensive synthesis of the information available on aerial photographs is intended to assist planning, protection and research of the historic environment.

The specific aims of NMP are:

- To produce a georeferenced digital transcription of the form and extent of all archaeological features visible on aerial photographs for the whole of England.
- To record the location, indexed classification, archaeological description and analysis, and main sources of all archaeological sites visible on aerial photographs. Additional morphological recording for those sites for which meaningful morphological comparisons can be made.
- To provide a synthesis of the archaeology in each project area in the form of a report on the character, diversity, association and distribution of archaeological sites and landscapes.

1.2 Sources

Aerial Photographs

1. National Monuments Record

Enquiry & Research Services

National Monuments Record

English Heritage

Kemble Drive

Swindon SN2 2GZ

Tel: 01793 414 600

2. Cambridge University Unit for Landscape Modelling (formerly CUCAP)

University of Cambridge

Unit for Landscape Modelling

Sir William Hardy Building

Tennis Court Road

Cambridge CB2 1QB

Tel: 01223 764377

3. Somerset County Council HER

Historic Environment Service

County Hall

Taunton TA1 4DY

Tel: 01823 355426

Documentary Sources

Local Historic Environment Record monument records: The relevant Monument and Event records from the HER have been used as an aid to interpretation.

National Monuments Record (NMR): The relevant Monument and Event (including Excavation Index) records from AMIE have been used as an aid to interpretation.

Historic maps: These included Ordnance Survey first and second edition 25" maps from the late 19th and early 20th centuries. The 1955/6 edition Ordnance Survey Archaeology Division 1:10,560 field sheets (the precursors to the current NMR record maps) have also been consulted and have proved valuable in identifying removed field boundaries and structures.

1.3 Digital Transcription/mapping

Archaeological maps are produced by tracing archaeological information from georeferenced aerial photographs onto a suitable digital map base.

Rectification of aerial photographs

Rectified and georeferenced digital images are produced by transforming oblique and vertical photographs using AERIAL529. Where no digital image is available the relevant photograph(s) is/are scanned of each archaeological site to be mapped.

Control information is taken from digital copies of OS 1:10,000 scale maps and the relevant scanned photograph(s) are normally be rectified to an average level of accuracy of + <2m to the map. This gives an overall accuracy of plotted features, to true ground position, within +5-15m.

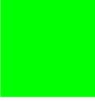
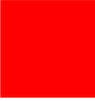
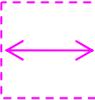
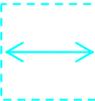
A digital terrain model function is used to compensate for steep or undulating terrain.

Mapping of archaeological features

Archaeology is traced off the georeferenced and rectified photographs using MapInfo. Archaeological features are depicted on different layers mainly on the basis of form (e.g. bank, ditch etc) irrespective of preservation as this is recorded in the database.

Although NMP has a standard set of colours for different layers they have been set up, on the basis of form (e.g. bank, ditch) so that they can be viewed in any colour or in a GIS environment where colours and symbols may relate to interpretation e.g. period, type etc. Symbols and fancy line types are avoided to facilitate transfer between GISD packages. Exceptions to this are ridge and furrow which is drawn in a semi-conventional manner because it would be too time consuming to map every rig and furrow. Therefore blocks are outlined and the direction of groups of rigs are shown with an arrow.

MAPPING CONVENTIONS

	Ditch	Used for drawing all negative features seen as cropmarks and earthworks, eg, ditches, hollow ways and pits
	Bank	Used when drawing upstanding earthworks or levelled features
	Pits & Quarries	Used for extraction pits, bomb craters and other cut features
	Ridge & Furrow	Used for ridge and furrow which has been levelled by the last available photograph
	Ridge & Furrow	Used for ridge and furrow which is still extant
	Structure	Used for structures, eg, a concrete pillbox or wooden posts