Part 3 of this report brings together all strands of the Review, including a view of current best practice in over 20 projects, the core and trend analysis described in Chapter 4, and the IPC results summarised in Chapter 5. It is in effect an introduction to the companion report, a newly written Template HLC Project Design which reflects the Review’s conclusions, mainly using methods of the convergent “wave 4” attribute-led projects (Cumbria, Cheshire, Shropshire and Devon). The Template also, however, takes account of more recent experience of HLC gained since the Review’s main data collection phases, in project designs during 2003.

The Review demonstrated a need for new HLC projects to use a more consistent and standardised method, and the Template now provides this. Future standardisation of terminology (eg of classification terms or criteria for attribution) is required, and greater transparency, and this will emerge from use of the Template for new projects and for regional integration projects for old HLCs. The limited standardisation is identified as a problem area in the IPC tests, although they also demonstrated that any national standardisation should be balanced against the desirability of retaining some individuality to reflect local contexts. This need not eventually rule out the production of a suitably overarching classification arising from regional synthesis of the county HLC.

The Review showed that recent projects already more or less achieve the necessary level of inter-project consistency. It seems that the diversity of method noted by some observers is now largely historical, although it remains a problem for future integration between counties. In particular, the Review’s analysis of perceived strengths and weaknesses showed that most strengths are firmly part of the core of HLC whilst most weaknesses are peripheral, and becoming more so. Another conclusion of the IPC project was that greater attention is needed to inter-county correlation at the appropriate scale (eg regional), although it also concluded that the HLC method should continue to develop with local objectives and priorities to take advantage of local knowledge and experience.

Most important, however, is the need for practitioners and users to recognise that characterisation is an interpretative process and that its results will consequently inevitably differ between projects. These conclusions, and use of the Template, will limit differences by suggesting the sources, data structure and standard terms that should be used in HLC, but ultimately, differences will always remain caused by varying perceptions and stages of understanding.
HLC has been a learning process for all participants. Later projects have always learnt from earlier methods, but their borrowings have always been accompanied by fresh invention; thereby the method has steadily improved. The latest projects (and those not yet started) will continue to benefit from the work of the pioneer projects. Their own development and testing of the method will in its turn provide benefits and inspiration for ‘old’ HLCs during their updating stages, or when they reach the stage of second-round HLC, or if they use county HLC for more detailed local work.

**Principles of HLC**

A best practice HLC method will follow all the established guiding principles of HLC (see chapter 4), with the addition of two further principles, transparency and integration, whose importance has arisen from the Review. These principles have formed the basic philosophy of the HLC programme from the outset (*Yesterday’s World, Tomorrow’s Landscape*), and they have been refined and added to. They are a development of the initial thinking behind how to define the historic landscape and of its subsequent refinement (Fairclough 1994, 1995, 1999, Countryside Commission 1994, 1998), based on the first practical applications in Cornwall which established both the theoretical and practical aspects of a methodology underpinned by a set of guiding principles (CAU and LDA 1994, Herring 1998).

The principles are the foundation for HLC and are coming to be adopted in other areas of characterisation, such as EUS, Metropolitan urban characterisation, and landscape work in other European countries (eg Ermischer 2002, Nord Paulsson 2002, Macinnes 2002, ERM/ERA 2001, Fairclough 2002b and c). Most importantly, they are fully compatible with the approach set out in the European Landscape Convention (see Fairclough and Rippon 2002). They establish the practical extent of the approach and the conceptual framework in which the method is applied, and should be used to underpin both theoretical and practical aspects of an HLC project.

The principles are much more than simply a guide to the method - they define the basic objectives and purpose of the project. They also link HLC to current aspirations and agenda for the involvement of people, and the sustainability of our past for the future, for example in *A Force for our Future*.

The principles were set out in Chapter 4, and are repeated here in a highly concise form. They state that HLC should:

- Define historic character first and foremost in the present-day landscape.
- Identify interactions and change in the landscape through time.
- Characterise the whole of the landscape, not designate selected parts – ie no part of the landscape is to be regarded as intrinsically more important than any other.
- Use an archaeologist’s approach to ‘read’ landscape as material culture.
- Use the present day landscape itself as the main
source, through the desk-based medium of maps and air photos, using GIS.

- Understand “landscape” through interpretation and perception rather than purely as an objective thing i.e. “landscape as perceived by people”.
- Remember that landscape is and always has been dynamic, both in terms of physical material components and shifting attitudes to it; thus management and change not preservation is the aim.
- Ensure that its conclusions and interpretations are transparent, checkable and updateable.
- Be fully integrated into other environmental and heritage management databases, particularly (in England) the SMR (or in future the HERC).

**Data Sources**

The range and use of source material is the one of the principal determining factors in HLC methodology, but closely linked to questions of data structure. What is used and how it is used ultimately influence the decisions made in defining HL character. It is important therefore that the sources used consistently and comprehensively cover the whole area of the project, and that they are treated in a similar way between projects.

Maps are the primary source, providing a direct proxy access to the landscape itself. They need to be digital, first, OS 1:25000, c.1997-2002 and 1:1250/2500 LandLine maps, or wherever possible. MasterMap. The OS 1st/2nd edition 6” (1:10560), c.1840-1910 is essential, preferably also digitised, and other map sets OS 1st edition 1”, c.1810-1850, sometimes also 1920, “County series” 6” and OS 1:25000, 1950s are very useful.

Second only to maps are vertical air photos, where they are up to date and fully geo-referenced in GIS.

Thereafter, any county-wide digital dataset will be helpful, particularly if polygon-based. Many of these will incorporate data within county council, such as Habitat survey, Ancient Woodland Inventory, Countryside Agency Character Areas, English Nature Natural Areas.

There is also a wide range of other useful supporting data, sometimes (but rarely) available digitally, such as other historic mapping (eg 18th century county maps, Estate maps), archaeological landscape surveys, some SMR and similar data. The Template Project Design includes an Annex listing a range of commonly used sources.

**Use of Data Sources**

Data sources must be used consistently across the whole project area, and their interpretation must be within a rigorous framework of clear separation between decision-making and interpretation. Multi-tiered sources are used to measure depth and change, and to create models of HL character. An overall perception of HL character is best established at 1:25000 scale, but recent projects, influenced by MasterMap, capture (digitise) at c 1:10000 scale.

The size of polygons that are defined is an issue of both use and
structure of data. The Review found that the core method was to create polygons of a mean size of between 18 and 61 ha. in size; there was little correlation between mean size of polygons and the wave to which a project belonged. MasterMap carries the risk that polygons will become ever smaller because that map base has its own highly detailed polygonisation (Fairclough 2002a). This is described as a risk because it will weaken HLC’s generalising power. The tendency needs to be countered in new projects, and this is already happening. New projects will need to amalgamate MasterMap polygons into large HLC polygons in order to reflect similarities between areas and their HL character rather than the differences - the latter are easily observed, the former – synthesis – is much harder to achieve. There is no hard and fast rule, but means of c25 to 50ha are probably preferable.

Data Structure
The information about HL character (even when a flat file text and map as in Cornwall and Axholme) was originally envisaged to be a single, if flexible, response to questions about the complex historic landscape. Much of what was originally devised is still at the core of the method. With advances in GIS, however, a more complex method is now used, in which the map is not simply a display tool with text descriptions and time-depth matrices, but a method of analysis in its own right. The core approach is through GIS (usually MapInfo or ArcView) linked to a structured database (eg Access). A main conclusion of the IPC project was that (as well as standard terms and types) similar data structures should be used wherever possible, to facilitate comparison between projects. It was recognised that there should also be some scope for continued flexibility to include locally distinctive types.

The recent projects use data structures that perform combination queries of attributes that produce varying results to specific questions being asked about the data. They are all attribute-based rather than classification–led methods (see chapter 4). Furthermore, in terms of how data is handled – ie whether manual, computers used for display, or computers used by manipulation (see chapter 4), the first approach, naturally, is fully peripheral and (while display and manipulation are currently both core) the trend is clearly for use of computerisation purely for display to become peripheral as well.

Separate sets of data fields (attributes, attached to HLC polygons) are needed for present day HL character and for previous type(s) of HLC. Attributes will cover subjects such as field pattern morphology, function, sources, period (whether by broad date-range or attached to particular major sources, eg map editions), indicators of historic process eg of enclosure process. Well-tried examples of attributes and the terms to be used to capture them are provided in the Template Project Design.

By recording these attributes for each individual GIS polygon, it becomes possible to use data fields or sets of data fields to build more than one classification of HLC Types on demand and subject to specific needs and questions. Most Projects (as the Template recommends) also find it useful, despite this flexibility, to ‘hard-wire’ a simple classification (c10
groups’, eg enclosed land, settlement, industrial, both to produce an easily accessed entry-level to the GIS and to structure data capture screens within it.

Multi-tiered referencing is needed, for example for Sources, when more than one document type is used in the decision-making process, and Confidence (‘validity’) whether attached to single attribute fields or groups of them. The main data field(s) used in the decision-making must be clearly defined.

As an example of the approach to attributes, the morphology of field patterns might be treated as follows. The overall perceived form of the field pattern within a polygon could be Regular or Irregular; the shape of their boundaries could be Sinuous or Straight. The percentage of the dominant type within a polygon could be recorded (thus allowing generalisation). Overall dominant field size could be recorded, noting that variation in field size produces different classes: for example, smaller field sizes in South-west produce a lower end bias, whereas in other regions the emphasis may be within the mid to upper ranges. An example of a 4-class system, used in Somerset based on Lancashire, is 0-3 hectares: 3-6: 6-12: 12+. MasterMap may enable automated calculation.

The morphology of individual boundaries inside a polygon can provide indicators of time depth and character, such as whether Reversed S or Dog-leg boundaries, or strip fields, closes, water meadows, or specific previous land-use such as common or open field. Groups of boundaries can indicate aspects of layout and planning that have historical meaning (eg, Piecemeal, Grid, Co-axial). Whether field patterns have been Modified (and how) is worth recording, as is boundary loss against a past benchmark.

Documenting the Decision-Making Process
It is essential that HLC is as transparent and checkable as possible and in practice this means keeping an audit trail of decision-making processes. Even the earliest HLC did this, even if as manuscript annotations on maps, but the current norm is to incorporate reference material (meta-data as some call it) into the data structure of the HLC. The IPC concluded that the factors behind the decision-making need to be clearly stated for each type, and if possible for each polygon in order to avoid any confusion during comparison.

This needs to include:
- Information about the sources used to create the character type should be documented, at the polygon level (information about the creator, date created, capture scale and/or digitised scale).
- Information connected with the decision-making process for each polygon including commentary on the evidence for, and association with interpretations of, eg, morphology or enclosure process.

Analysis
The analysis of HLC data is dependent on the way it is collected (data sources) and how it is stored (data structure). The first conclusion of the IPC projects was that HLC
types need to be clearly defined and described, with supporting text and attributes that summarise the principle decision-making factors and types of processes involved in creating the type. This is the first goal of analysis in the current method.

*Time-depth*

The visible evidence in the present-day landscape for change and continuity over long periods of time. The difference between Time-depth and Date of enclosure is that Time-depth celebrates the changes that have occurred to HL character without making value judgements based on its origins. Time-depth is the best means to represent HLC to other professions, and is the preferred method in HLC.

*Past landscape change*

Change as opposed to continuity is more prevalent in the present-day landscape; landscape itself is ever changing and dynamic. In the future HLC should be used to measure change in the historic landscape for the State of the Historic Environment reports.

*Date of enclosure*

The origins of enclosure are intrinsically linked to Time-depth, but where change is shown by Time-depth, Date indicates the period of enclosure creation. This helps inform the recognition of degraded and much changed landscapes within an associated context, which is useful for management of the landscape as well as for research.

*Enclosure process*

By indicating the processes of enclosure, a greater understanding about the landscape formation and the history of the landscape may be gauged. This is useful for a variety of applications, and reinforces the HLC’s application as a management tool.

*Morphology*

Because coverage of documentary sources (a clear-cut source for understanding the historic landscape) is uneven, and its use can sometimes lead merely to mapping of the documentary sources instead of a characterisation of the whole landscape. It is also very limited in its time depth so that over-reliance on documents can significantly understate time-depth. Interpretation based on analogy and morphology is a more comprehensive indicator of HL character. The majority of the projects used morphology as a primary factor, and it is a key method of HLC. Indeed, documentary evidence is mainly used in supporting roles, for example to confirm morphological assumptions in well-known sample areas before using them elsewhere.

*Previous land-use*

The representation of previous land-use is connected with a broad understanding of the earlier HL Character and the historic processes that have created the current palimpsest and the long sequences that are often visible in different ways in the present day landscape.

*Present-day land-use*

The present-day land-use is the connecting point for the modelling of historic landscape so that it is available to other professions using a clear and simple common language.

*Data sources*

The spatial coverage of source material used by HLC is used to
demonstrate the depth of evidence for HL character. This is useful for identifying the areas of potential enhancement with further, less comprehensive sources.

Stratigraphy of landscape
Identifying the horizontal stratigraphic process of landscape, as opposed to the vertical that is measured through Time-depth, was carried out in Herefordshire. By using a method that identifies specific parcels of landscape that are late, intermediate and early, a network of patterns in the present-day landscape is shown, without identifying chronology, but showing the evolutionary process of landscape.

Conclusion
This HLC Method Review and its conclusions have facilitated the preparation of a Template Project Design for HLC. This forms a companion volume to the Review, but is also a freestanding document and it is intended that it is revised as necessary over the coming years. Whilst it is mainly an amalgam of four current project method statements, it also picks up the recommendations and observations that have arisen from the review, and provide the means for implementing the review’s recommendations. Until now the Project Designs of new HLC projects have been drawn up in the light of the best 4 or 5 available Project Designs of recent projects, but each project has selected what it perceived to be the key elements. The Template Project Design has centralised this process, and presents in a single document all the lessons of nearly 10 years of HLC methodological development.