**C.2 Modelling the past on HERs**

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## C.2.1 Defining a model#

A model is a representation of some aspect of reality. The purpose of creating a model is to help understand, describe, or predict how things work in the real world by exploring a simplified representation of a particular entity or phenomenon.

This section describes the issues that need to be considered in modelling the information held by an HER to support its functions as a development control tool and research resource.

The past in all its detail is inherently unknowable. Pragmatically it is necessary to concentrate effort in data collection to those areas for which there is a demonstrable need rather then what is theoretically possible.

HER officers bring extensive domain expertise to the process of data modelling, but they do not necessarily have the expertise required to apply this knowledge to the modelling process itself. This may require the experience of specialist information management experts

## C.2.2 Current models#

Development of HERs over the last few years has three broad categories of information describing the past:

- Monuments: our current understanding of the nature of the historic environment, traditionally summarised into records of monuments. Our understanding of these may change over time as new information becomes available or existing information is re-interpreted.
- Events: the means by which we have arrived at that understanding through investigation. Events records that show where, how, and by whom information has been gathered.
- Sources/Archives: records of information sources that show where information included in monument or source records was obtained from and where it can be accessed in detail, either within the HER or by reference to a source of information held elsewhere.

These form the ?Event/Monument/Archive? model.

*Figure 11: The event-monument-source data model.*

More precisely (though less snappily) this could be described as the ?Archaeological Investigation, Interpretative Monument, Information Source Reference? model, following the strict definition of ? Events? adopted by ALGAO (see C.6), and the recommendation that HERs do not, where possible, hold primary archive material, but refer users to its location.

## C.2.3 New roles, new models#

Additional areas of information are increasingly of interest to HERs and a greater complexity of relationships between them is required.

The HER officer should contribute to the definition of what areas of information to record. This continues to develop as national standards for the definition of the content of an HER (for example via the Forum on Information Standards in Heritage ?MIDAS? standard) and professional practice (via the HER Forum) are being created. Some areas are now being recorded in separate modules that were previously parts of the monument record. They include:

- **Access and amenity information**: documenting public accessibility to significant monuments, facilities available and so forth.
- **Archaeological deposit modelling** to support prediction of the archaeological potential of a given area.
- **Casework**: logging of advice given in response to development control consultations or other enquiries can promote consistency and improved service to users, as well as documenting and promoting the actual work of the HER.
- **Designations**: increasingly it is becoming relevant to record and track the legal status of any given area so that appropriate advice can be given. National designations will include scheduled monuments, listed buildings, conservation areas, Registered Parks and Gardens and Registered Battlefields. Local Designations will include Local Lists of buildings and areas. Often these designations apply to large areas covering several definable separate monuments.
- **Finds and ecofacts**: findspots can reveal additional information about the local historic environment, or the process of site formation. Environmental archaeological work can allow the HER to present a more comprehensive view of the archaeological activity within an area and can assist in the development of research themes and strategies.
- **Historic Landscapes**: the character of the landscape as well as the nature of the individual monuments within it is increasingly viewed as significant.
- **People and Organisations**: the people and organisations who have been involved in the creation and use of the historic environment or its investigation. Recording this information populates the past and promotes connections to the public's everyday experience of the past.
- **Historical 'events'**: using the term in its broad sense. For example, the Elm Decline in c.4000BC, the invasion of southern Britain by Julius Caesar in 54 BC or the Fire of London in 1666. These contribute context and meaning to the detailed records of specific monuments and landscape areas.

Although many of the above can be related to the three ?core? categories of information which make up the ?Event/Monument Archive? model, others (such as historical events, people and organisations), go beyond it requiring a more complex approach to the modelling of information affecting the historic environment.

## C.2.4 Implementing a data model for HERs[#](#)

Modelling these categories of information to create or develop a suitably comprehensive model is not an easy task. Indeed, an HER officer with a background in archaeology trying to design a sound data model faces the same challenge that an information scientist might face in undertaking an archaeological excavation! There is no substitute for seeking professional support and advice from information scientists and software designers.

Some issues that the HER community need to consider in developing a broader information model include:

- **Interoperability and integration**: HERs exist in a broader community of ?memory institutions?, including, for example museums and local record offices. The HER community should aspire to develop data models that promote sharing and interoperation of data between HERs and the wider information community.
- **Pick 'n Mix**: A data model for HERs should cover all the information areas that might be of relevance. HER good practice might not eventually use all of the area of the model, but it is sensible to allow for expansion and development.

A major focus of development effort in modelling this wider information community has been the development of the Conceptual Reference Model (CRM) by CIDOC http://www.cidoc-crm.org/, the documentation committee of ICOM, itself a branch of UNESCO, the United Nations cultural heritage body.