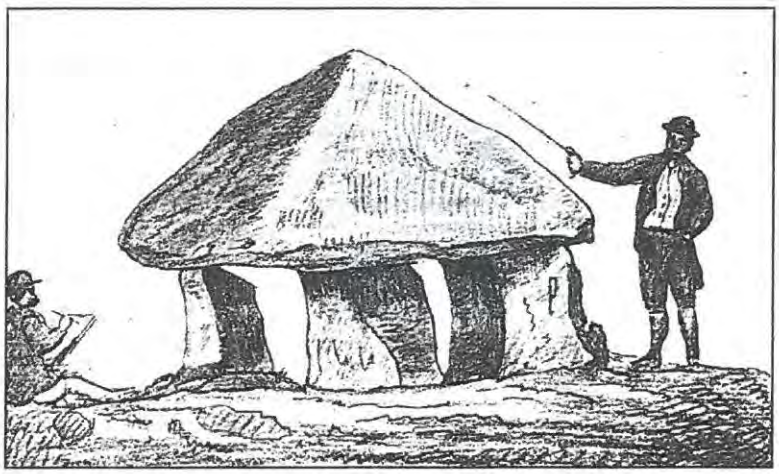
Pan-Wales Prehistoric Funerary and Ritual Sites Survey: Trial data synthesis

Project No. G1629

Report No. 579



Prepared for Cadw

April 2005

By
George Smith
And Nina Steele

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

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Cover picture:
Bodowyr Chambered tomb, Llangaffo, Anglesey, PRN 3134,
from the Rev. John Skinner's Ten Days' Tour through the Isle of Anglesey, 1802,
repro. in Arch. Camb. suppl. 1908.

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

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PREHISTORIC FUNERARY AND RITUAL SITE SURVEY, TRIAL PAN-WALES SYNTHESIS

CONTENTS

INTRODUCTION

The objectives of this work were to test whether the data from the four WATs could be brought together and analysed for an eventual final synthesis of the results of the project for the whole of Wales. An initial study of the sample WAT databases was carried out in September 2004 when the datasets supplied by the other WATs were imported into ACCESS to allow comparison.

The initial comparison of databases recommended that it would be more economical to carry out a synthesis when all the datasets are available as otherwise the might be much duplication of effort. The report recommended that each WAT should ensure that each dataset fully matched with the methodology set out by CPAT, last fully revised in 2001.

A trial synthesis was carried out in 2005 for the available datasets by editing the database field definitions and thesauri used for the entries to produce a single data table that could then be used to produce statistics or Mapinfo plots.

INITIAL COMPARISON OF DATASETS by Nina Steele

The available datasets were:
ACADAT East Carmarthenshire: 621 records
CPAT Denbigh and Conwy: 465 records
CPAT Flintshire and Wrexham: 472 records
GAT Meirionnydd: 393 records
GAT Conwy and Arfon: 351 records
GAT Dwyfor and Anglesey: 385 records
GGAT: 1375 records

Problems encountered during importing data:

- DAT data had to imported into access via Excel 5.0 and then Excel 97
- CPAT denbeconwy table also had to be imported through both versions of Excel, and had problems in the update field. As this field is for internal CPAT use only, for monitoring the updates to SMR records, this field was deleted for the purposes of the synthesis.
- CPAT flintswrex table had references field, which will be linked to the CPAT SMR bibliography table. This had to be deleted in order to use the table normally, although the version with references remains in the database.

- Some of the datasets record multiple site types and periods, others just one.
- Core fields for comparison will need to be selected, and glossaries of terms provided for each, to allow the comparisons between terms to be made, and for each to be mapped meaningfully in the same way. This may take some time depending on the number of core fields chosen for the purposes of a pan-Wales comparative study.
- Currently the core fields would be most likely to consist of:
    - PRN
    - Sitename
    - NGR
    - X/ East
    - Y/ North
    - Period/ Period 1*
    - Site type/ Site type 1*
    - Siting*
    - Altitude
    - Condition*

*these fields are most likely to present compatibility problems in the terms or numbering systems used compile them

- Fields such as topography, land-use and form are not consistently filled-in, which means that these would not be suitable for comparison.

The way forward:

It would be preferable to begin by mapping the GAT tables, which only differ in minor ways, usually in terms of the field names. When this has been done, and a single, although most likely reduced, dataset has been produced, this could be used as a model for interrogating the databases of the other WATs and making them comparable, as priorities for the data structure of a pan-Wales dataset would have hopefully been identified.

TRIAL SYNTHESIS by George Smith

The main recording fields were first checked for correspondence and these are shown in Table 1.

Table 1

Field	CPAT	ACADAT	GAT	GGAT
PRN	•	•	•	•
EAST1	•	•	•	•
NRTH1	•	•	•	•
ALTITUDE	•	•	•	• (text)
CONDITION	•	•	•	•
SITETYPE	•	•	•	•
SUBTYPE	•	•	•	
LENGTH	•		•	• (text)
WIDTH	•		•	
DIAMETER		•	•	
SITING	•	•	•	•
GENERAL TOPOGRAPHY			•	
SLOPE				
ASPECT		•	•	•
PROSPECT			•	•
ORIENTATION		•	•	

The core fields had to be those that were common to all WATs. These were:

PRN, NGR, ALTITUDE, SITENAME, CONDITION, SITETYPE, SUBTYPE, PERIOD, SITING, EAST1, NRTH1.

The data tables for each WAT were stripped down to these common fields and a new field added to each to record the WAT area as a code. A new table was then designed that would accommodate all the data. The WAT codes were:

CPATDC: CPAT Denbigh and Conwy East
CPATFW: CPAT Flintshire and Wrexham
DATEC: DAT East Carmarthenshire
GATM: GAT Meirionnydd
GATCA: GAT: West Conwy and Arfon
GATDA: GAT Dwyfor and Anglesey
GGAT: GGAT all

The database field definitions used were as follows:

WAT:	Text	50 characters
PRN:	Number	Double Auto, Duplicates OK
NGR:	Text	14 characters
ALTITUDE:	Number	Double, Auto
SITENAME:	Text	50 characters
CONDITION:	Text	50 characters
SITETYPE:	Text	50 characters
SUBTYPE:	Text	50 characters
PERIOD:	Text	50 characters
SITING:	Text	50 characters
EAST1:	Number	Double, Auto
NRTH1:	Number	Double, Auto

To achieve complementarity each data table was edited to fit these definitions.

NGR. Records vary slightly as some allow only 8 figure accuracy, some 10 figure. GAT also uses A for Approximate, C for Centre as a suffix, where needed.

ALTITUDE. GGAT records this a s text field with m for metres after the number and c for *circa* in some cases. These letters had to be removed to convert to a number field. ACADAT allows multiple entries, i.e. two numbers for a pair of monuments. These had to be converted to a single number.

CONDITION: Generally all were comparable using five levels by text or a code. The few records that could be described as Other were edited into a single group R.

A: Intact
B: Mostly intact
C: Some damage
D: Extensive damage
E: Destroyed
F: Not applicable
U: Unknown
R: Moved/restored/submerged/Excavated

SITETYPE: According to the CPAT methodology

SUBTYPE: According to the CPAT methodology

PERIOD: According to SMR/HER practice

SITING: According to the CPAT methodology

EAST1: According to SMR/HER practice

NRTH1: According to SMR/HER practice

The datasets were then pasted into a single table with 4062 records. The descriptive field terms **Sitetype**, **Sub-type**, **Period** and **Siting** were then edited to make them conformable. Mapinfo tables were produced from queries for a selection of site types and sub-types as a trial synthesis for the sample areas and plotted as distribution maps of these monument types in Wales. Plots were produced for all chambered tombs (Fig. 1), all round barrows (Fig. 2), all round barrows by sub-type (Fig. 3), all standing stones (Fig. 4) and all stone circles (Fig. 5). The results show the possibility for production of such syntheses. By further querying the distribution map for each site type could show different symbols for recognised sites and those that are less certain. This is important for instance for chambered tombs of which a large proportion is sites of uncertain validity or known only from antiquarian references. Round barrows, as the most numerous site type, are difficult to plot by sub-type at this scale because the symbols have to be so small that they are difficult to see. Standing stones are the only other numerous site type. The remainder of site types have quite small numbers and some could be easily combined on the same plots, for instance cremation burials, cremation cemeteries and inhumations or henges, cursuses, stone rows and stone settings.

RECOMMENDATIONS

Each WAT should first ensure that the datasets for each area within the WAT are fully compatible with each other. This is only important for the core fields listed above. It is a good test of compatibility if the areas within each WAT can be combined into a single table, with each area identified by a code, as described above.

The **site types** and **sub-types** should exactly follow those identified in the methodology set out by CPAT.

The same goes for **condition** and **siting**.

It would make querying simpler if a separate field is created for **sub-types** rather than adding them as a suffix to the **site type**.

The database field definitions should be modified to match those outlined above for the core fields.

The overall distribution plots are needed for overall discussion but for study of **siting**, for instance, more detailed plots of individual topographic areas will be needed.

Dimensions should also be a core field and could be made so by some time-consuming editing of the existing data from GGAT. This is important for comparison of round barrows by geographical distribution and by comparison of sub-types.

Some analysis, such as of the relation between site types/sub types and dimensions or altitude is better carried out by statistics and these can be extracted better if the data is all made compatible.

Some detailed analysis of **orientation** and **aspect** can be carried out for those WAT areas that incorporated these extra fields after the survey had already begun in CPAT.

Overall statistics or national distribution plots can also be produced for management data such as individual monument evaluation criteria such as threat or potential or summary monument values. This data was not included in the datasets supplied.

The final data output should consider how it could contribute to an extension of the END database. For this it is important that the site types and subtypes are nationally uniform.

For future projects it is important that a common relational database should be agreed and used from the outset. The project methodology should define the database fields as well as the recording

categories and general approach. The aims of the project should be set out at that stage, identifying the content of the final synthesis and how the field recording can achieve that by the survey methods and data collection.

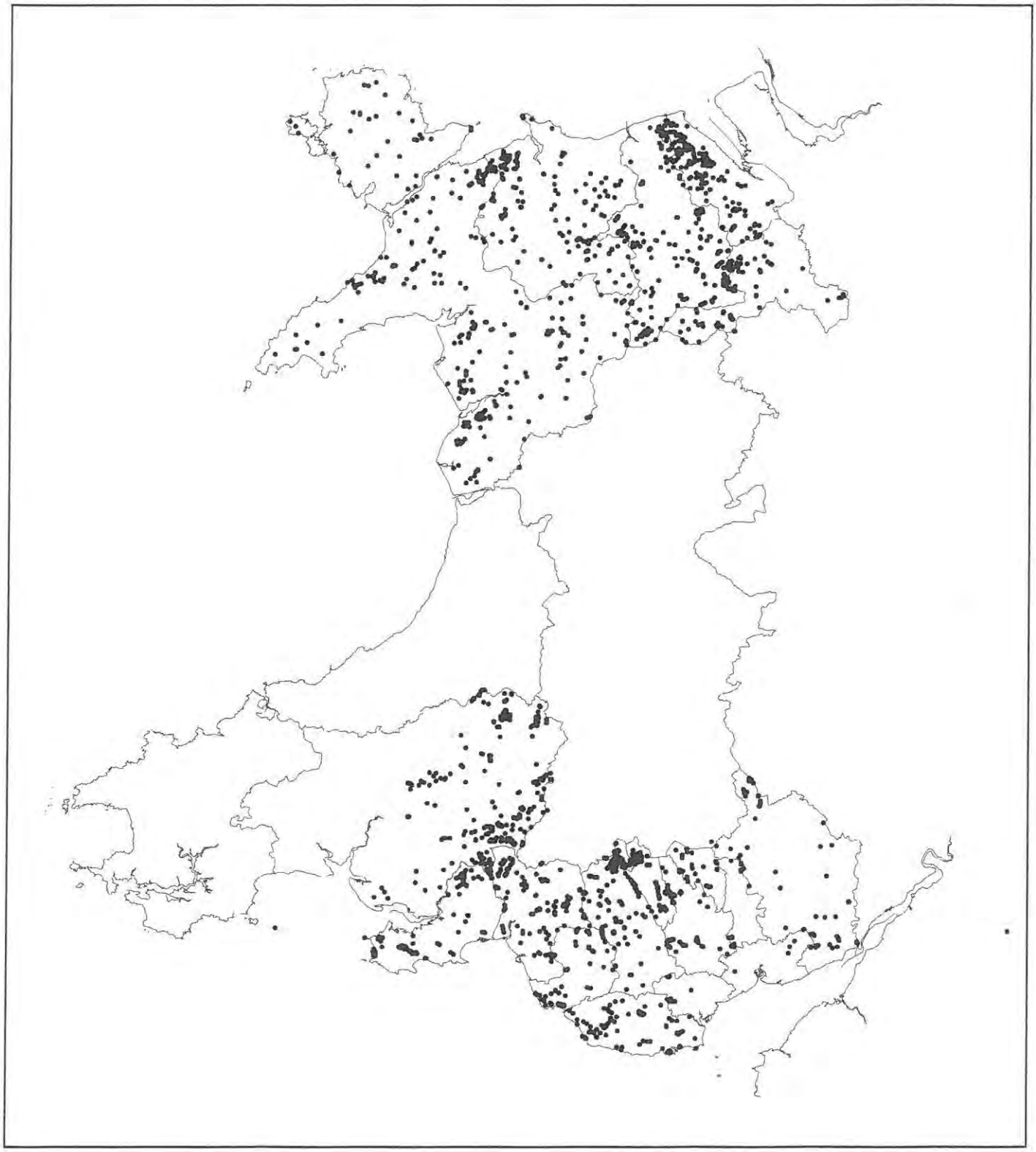
The final report should produce overall distribution plots and statistics and reproduce the data in way that can be used by other researchers, probably on CD.

The final report should also consider wider research problems. It should study the meaning of varying distributions by site type and period, their topographic locations and other data on orientation or aspect, where available.

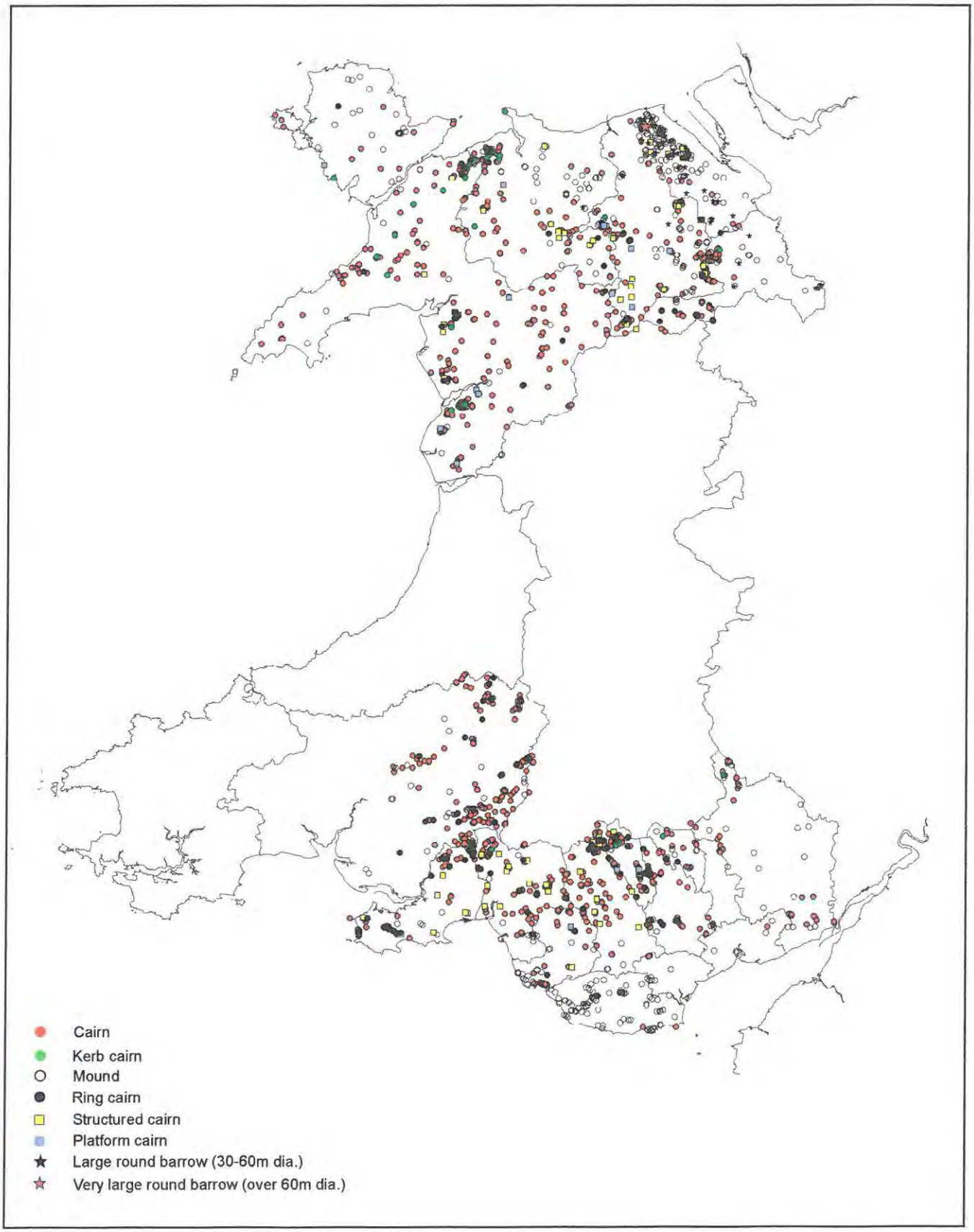
The report should identify the presence of excavated, artefactual and dating evidence.

The report should identify wider research objectives for prehistoric funerary and ritual monuments in terms of excavation, survey and palaeo-environmental study.

Pan-Wales Prehistoric Funerary and Ritual Site Survey trial synthesis
Fig. 1 Chambered tombs, possible chambered tombs, sites of chambered tombs or chambered tomb placenames in Anglesey, Gwynedd, West Conwy, Denbighshire, Flintshire, East Carmarthenshire and Glamorgan-Gwent

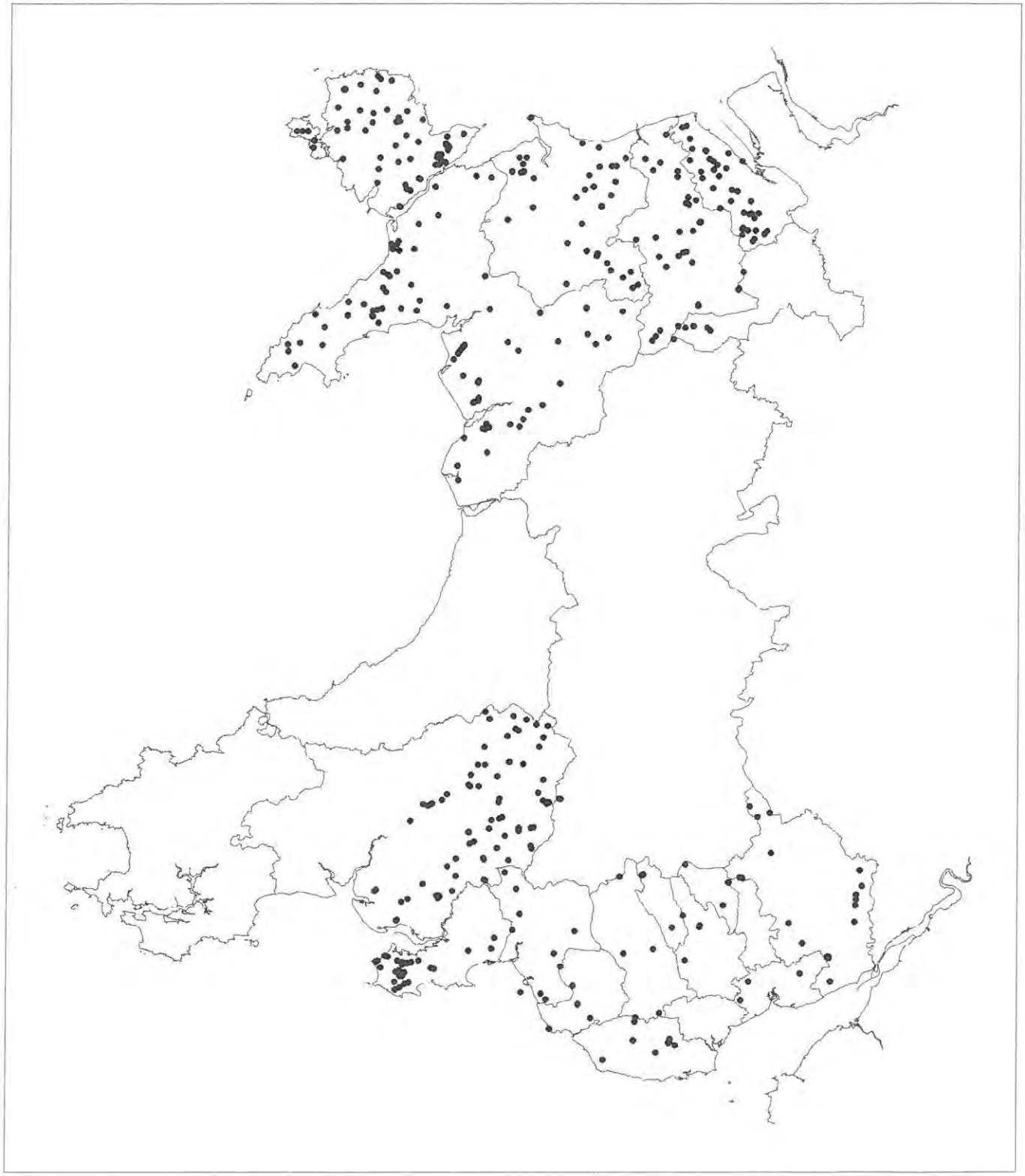


Pan-Wales Prehistoric Funerary and Ritual Site Survey trial synthesis
Fig. 2 All round barrows, possible round barrows, sites of round barrows or round barrow placenames in Anglesey, Gwynedd, West Conwy, Denbighshire, Flintshire, East Carmarthenshire and Glamorgan-Gwent



Pan-Wales Prehistoric Funerary and Ritual Site Survey trial synthesis

Fig. 3 All round barrows, possible round barrows, sites of round barrows or round barrow placenames by sub-type in Anglesey, Gwynedd, West Conwy, Denbighshire, Flintshire, East Carmarthenshire and Glamorgan-Gwent



Pan-Wales Prehistoric Funerary and Rotual Site Survey trial synthesis
Fig. 4 All standing stones, possible standing stones, sites of standing stones or standing stone placenames in Anglesey, Gwynedd, West Conwy, Denbighshire, Flintshire, East Carmarthenshire and Glamorgan-Gwent

Pan-Wales Prehistoric Funerary and Ritual Site Survey trial synthesis
Fig. 5 All stone circles, possible stone circles, sites of stone circles and stone circle placenames in Anglesey, Gwynedd, West Conwy, Denbighshire, Flintshire, East Carmarthenshire and Glamorgan-Gwent