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Chapter 3

Barrow research, missing data

3.1 Research questions

The barrows of the Netherlands have been the source for many reconstructions of prehistoric local vegetation. Barrows were built in open spaces, in areas that could have been used for several purposes before the construction of the barrow (see previous chapter). And yet, what the total landscape around the barrow looked like during the barrow’s construction, and the history of the area prior to the barrow’s erection, represents a great lacuna in the history of barrow research. This lack prompts the first research question:

1. What did a barrow landscape look like and what was the vegetation (history) around barrows?

Was the origin of the open space (e.g. how the open space originated and its original function) influential, affecting the builder’s choice on the barrow’s setting? Hardly any evidence supports the idea that the barrows were built in areas that were cleared for burial rite activities. The open place that a burial mound was raised in probably had a longer existence as an open space, before becoming the site of a burial mound. It might have been used for crop cultivation or as pasture, or the open space might have served as a settlement location. It has been suggested that the barrow builders had a preference for ancestral grounds, land that has been used by their ancestors. In several cases indications have been found that barrows were built on a location with a history of pasture (see section 2.3.2). This conscious decision, if true, suggests there might be a relation between barrows and pastoral zones. The second research question has been formulated as follows:

2. Were barrows built on ancestral grounds? What is the relationship with pastoral zones?

In addition to our ignorance on the origin of open spaces, what also is unknown is the size of the open spaces. The size of the open space is important for the understanding of the role of barrows in the landscape, for knowing the size of the open space tells us something about the visibility of the burial mound and the barrow landscape. Were they built in small open spaces with a short distance to the forest, where surrounding forest probably prevented the sight from and towards the mound? Alternatively, were they built in large open areas, so they were well visible from the environment and offered a good view towards the surroundings? In addition, the size tells us about the method by which it was cleared and the energy requirements in maintaining the open space.
3. What was the size of the open space barrows were constructed in and what was the distance to the forest?

The previous research questions lead to the last research question, concerning the role of barrows in the landscape.

4. What was the role of barrows in the landscape? How can the history of the barrow environment be linked to that of the natural and cultural landscape in the surroundings?

Since there is a public interest in knowing more about barrows (see Chapter 1), an additional research goal can be appended to the research questions described above:

5. Supplying Staatsbosbeheer and other authorities with advice and suggestions, to aide in reconstructing the original environment around barrows for purposes of tourism.

3.2 Research area

The research area encompasses the southern and central Netherlands (see figure 3.1). This area was chosen for the numerous barrows found there and for the time periods (from the late Neolithic to the Middle Bronze Age [2900-1100 cal BC, see table 2.1]) that are represented by these barrows. Previous excavations in these regions have yielded a lot of data, which will be reconsidered in this research project (Waterbolk 1954, Casparie and Groenman-van Waateringe 1980). In addition, the owners of nature reserves in this region are very interested in the role that barrow research in the development of cultural tourism and adequate heritage management.
3.3 Research methods

Below a brief overview is given of the methods used to answer the research questions. The methodology is further discussed in detail in part two of this thesis (Chapters 4-7).

RQ1 and RQ2: What did the barrow landscape look like and were barrows built on ancestral grounds?

Vegetation reconstructions (RQ1) were made using data derived from pollen analyses taken from barrow sites. These environmental reconstructions provide information about the prehistoric land-use that was in practice before and at the time the barrows were built (RQ 2). Extant data sets were explored and reconsidered in five case-studies (Chapters 8-12). To expand the original data sets additional sampling of barrows was undertaken as well (Chapters 8 and 12). In addition to single pollen spectra, pollen diagrams from the soils underneath the barrows were made. From these diagrams vegetation development in the barrow landscapes through time could be reconstructed. Despite possible factors of disturbance (see Chapter 5), buried mineral soils appear to be suitable for pollen analysis, as has been demonstrated by past researches. For example in Harreskov, Jutland, where Odgaard and Rostholm obtained a pollen spectrum from a fossil soil found under a barrow (Odgaard and Rostholm 1987). The diagram showed a clear vegetation development, corresponding to the development shown by a peat diagram. Calibration of these pollen diagrams is necessary to determine the time-depth relation. Until present a calibration value of 10 cm per 300 years was used, defined by Dimbleby, based on a buried soil in Suffolk (East of England; Dimbleby 1985). A calibration based on pollen diagrams of Dutch Pleistocene sandy soils with known age is necessary for this research. The necessity of this calibration is further explained and discussed in Chapter 5. Besides pollen diagrams, single pollen spectra were used to compare the ancient surface data from clusters of barrows of differing ages belonging to one barrow group.

RQ3: What was the minimum size of the open spaces?

Barrows were constructed with sods, probably taken from the immediate vicinity of the barrow. The number and size of these sods that were used to build the barrow can provide information about the minimum size of the open area around the barrow. Pollen data from sods were compared to pollen data from the old surface, to ascertain whether the sods were taken in the immediate surroundings of the barrow (Chapter 7).

The vegetation reconstructions undertaken provide information about the size of the open spot. The ratio of arboreal to non-arboreal pollen was used to estimate the distance of the barrow to the forest edge (Chapter 7). To refine these reconstructions, a recent open area surrounded by forest with known vegetation cover was sampled at increasing distances from the forest border. These pollen spectra were used to calibrate the barrow pollen data.

RQ4: What was the role of barrows in the landscape?

The answers to research questions 1, 2 and 3 provide the foundation from which RQ 4 can be posed. To understand the role of the barrows in the landscape it is necessary to know what the landscape looked like and what vegetation was present at and around the barrow site prior to and at the time the barrows were built (RQ1). To link the barrow landscape to the natural and cultural surroundings, the origin of the open area, and what it was used for, should be reconstructed (RQ2).
The reconstruction of the size of the open area (RQ3) gives valuable information about the role of barrows in a wider landscape, while providing welcome insights on the visibility and impact of a barrow on its surroundings (chapter 13).

RQ5: Cultural tourism

To reconstruct barrows and their original environments in nature reserves requires a detailed vegetation history of the barrow landscape. The outcomes of this thesis research will provide the owners of these areas with information that they may use to include the barrows in their management and development of the nature reserve areas (Chapter 14).