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The Maaskant project

Continuity and change of a regional research project

Introduction

The Maaskant project started in the 1970s, one of the earliest regional research projects that were conceived in the Netherlands during that period. The goal of the project was to study the occupation history of a small region south of the river Meuse, the Maaskant. Now, twenty years later, the goals have changed in several respects. Presently the emphasis of research lies on following the transformation of the cultural landscape, notably from the Bronze Age to the Roman period. In that context, the concept cultural landscape is defined as nature transformed by man into a structured and instrumental environment.

The purpose of this article is to analyze how the focus of the research gradually shifted and how this affected the research methods. Since this development happened in the late 1980s and early 1990s, however, it is not possible to present many results of the new approach yet. Most of the work which has been carried out in the last ten years is still awaiting publication. The extensive excavations of the last decade, however, have recently been published (Schinkel 1994).5

A brief introduction to the project

Strictly speaking, the Maaskant signifies only the area of river clays and systematically between the towns of 's-Hertogenbosch and Grave (Figure 1). Literally, Maaskant means 'side of the Meuse' as opposed to 'side of the beach' (in Dutch Havens). The latter refers to the study area south of the Maaskant, which were covered with extensive deposits until the 2nd century. Therefore one would expect the Maaskant project to study the clay moat bordering the Meuse, but in fact, the boundaries of the study area have always been interpreted rather wide and include parts of the Halkant as well. Presently the Maaskant project incorporates the whole region which is enclosed by the Meuse in the North, by the Peel marshes and the river Rijn in the east, and by the rivers Aa and Leij in the south and west.

The project was initiated in the 1970s by G.J. Verwees, who worked at the Leiden Institute of Prehistory (IPL) at that time. His aim was to create a regional framework for the excavations of the Maaskant. The project was largely directed by F.J.H. Smidtsman (1999), who first surveyed the clay area in the context of the construction of a soil map (Vast Diaproj. 152). The resulting distribution map of clay from the Iron Age, the Roman period and the medieval period formed a good starting point for Verwees' study of the occupation history of the...
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The project was initiated in the 1970s by G.J. Verwers, who worked at the Leiden Institute of Prehistory (IPL) at that time. His aim was to create a regional framework for the excavations that he carried out in Oss, a town located on the sandy soils directly to the south of the Maaskant. The region had already briefly been studied by P.J.R. Modderman (1950), who had surveyed the clay area in the context of the construction of a soil map (Van Diepen 1952). The resulting distribution map of sites from the Iron Age, the Roman period and the medieval period formed a good starting point for Verwers’ study of the occupation history of the
Maaskant. The excavations near Oss created an interesting possibility to study differences between sites in the river valley and sites on the higher sandy soils.

The excavations near Oss have always constituted the most important part of the project. From 1976 until 1984 they were situated in Ussen, a hamlet to the north-west of Oss. Later, adjacent town districts were investigated. The practical reason for the concentrated research in this relatively small area (ca 4 km²) is that in the last twenty years the town of Oss converted hundreds of hectares of arable land into housing estates. When this process of ‘town scaping’ was started in Ussen, Verwers saw an opportunity for a detailed reconstruction of the Iron Age settlement history. He obtained the co-operation of the municipality of Oss and the province of Noord-Brabant and managed to get all the building preparations and road constructions surveyed and documented by archaeologists. In less then ten years time, almost 30 hectares were excavated, which was nearly 20 percent of the entire area (figure 2; Van der Sanden 1987b, 18). Due to the vast amount of data collected in a relatively small area, the Ussen project – as it was called – proved to be of fundamental importance for the development of settlement models in the southern Netherlands (Van der Sanden 1987d, Schinkel 1994) and for the development for the Maaskant project in the last ten years.
To conclude this brief introduction, Verwers left the Leiden Institute in 1983. The Ussen-project was taken over by Van der Sanden, who had taken charge of the publication of the settlement data. The Maaskant project was taken over by the author, who was responsible for research into the metal ages at the Leiden Institute. As Van der Sanden and I had a completely different theoretical background than Verwers, we both started to change the aims of the projects (Fokkens 1993; Van der Sanden 1987b, 1987d). In the next paragraphs, it will be explained in more detail what these changes entailed and why they were implemented.

**The Maaskant project The first decade**

From a theoretical point of view, the initial objectives of the Maaskant project were characteristic for many Dutch regional research projects in the 1960s and 1970s. The general aims of this type of research had been outlined by Van Giffen (1947), the founding father of the culture-historical approach in Dutch archaeology (Slofstra 1994, 10-15). In general, Van Giffen’s main goal was to reconstruct regional occupation histories. He tried to achieve this by...
collecting as many data as possible about settlements and cemeteries. These data were then arranged in so-called cultural regional diagrams (*culurele streek-diagrammen*), which are comparable to the area and chronology maps that were produced by American archaeologists in the same period.

In this way the occupation history of one region could be compared with that of others, which could reveal similarities and regional particularities. It is characteristic for Dutch archaeology as it was founded by Van Giffen, that the relation between prehistoric communities and their natural environment formed an important part of such regional studies. These comprised therefore the (re)construction of the natural environment and of the economic basis, involving physical geographical, palynological and palaeo-botanical research. Gradually excavation strategies and methods were tailored to achieve these general aims of regional archaeology. This happened especially after the 1950s when large scale settlement research started.

Verwers, who had gained experience in this type of research in Haps (Verwers 1972), applied it in the Maaskant as well. In 1981, he stated the aim of the project as *a detailed reconstruction of the occupation history of the area*. Verwers distinguished three geographical levels of analysis, in his wording clearly showing that the sites in Ussen formed the basis of the project (Verwers 1981, 38; my translation):

1. settlements and cemeteries (on scale 1:1,000);
2. the surrounding area (on scale 1:10,000);
3. the region (on scale 1:50,000).

On each of these levels the analysis of the relation between the archaeological remains and the (physical) landscape was considered to be important. Information about the prehistoric natural environment was to be collected by intensive palaeo-botanical research and physical geographical surveys. Archaeological information, on the other hand, was to be obtained by means of excavations and surveys, the latter predominantly being carried out by local archaeologists (Verwers 1981, 38).

The objectives for the excavations in Oss-Ussen were basically the same as formulated for the research at the regional level: the reconstruction of the occupation history. This implied that the prime objective was to investigate the distribution of sites in space and time. The excavation strategy was therefore not aimed at a detailed exploration of the structure of settlements and cemeteries. Since the excavation methods and strategy have had a considerable influence on the composition of the collected data and, consequently, on the possibilities for interpretation, it will be necessary to study them in more detail. This allows for a better understanding of the theoretical and methodical developments of the project in the 1980s and 1990s.

**The excavation strategy of the Ussen-project**

The excavation methods used in Oss-Ussen were not much different from the traditional methods used in the Netherlands. Most of these had been designed by Van Giffen and his
students, but in the 1950s and 1960s local versions developed on institutions that were newly founded in that period. Of these the Dutch Suite Service for Archaeological Investigation (ROB; founded in 1947) had particular influence on the field techniques applied in Leiden, because the first director of the IPL (founded in 1962), P.J.R. Modderman had his roots in the ROB. One of the developments that shaped both the organizational and the methodical structure of the ROB excavation practice, was the post-war boom in the building of industrial and housing estates. Although every province had its own archaeologist, the number of rescue excavations increased constantly and it became physically impossible for the provincial archaeologists to supervise them all on a daily basis. This development determined the organizational structure to a large extent. In practice, field work became more and more a job for technicians and draughtsmen, while the provincial archaeologists – who remained responsible for the scientific quality of the excavations and for the publication of the results – increasingly spent less time in the field. It became accepted that an archaeologist published a site predominantly on the basis of the field drawings.

Methodically, one of the most important developments was the introduction of digging machines on archaeological excavations. It enabled the excavation of large areas, which would prove to be one of the most important aspects of modern archaeological field work. Verwers had used digging machines in Haps where he had excavated an Iron Age urnfield and part of a Middle Iron Age settlement (Verwers 1972). The method which he also applied in the Maaskant, implied that the digging machine removed the topsoil, thus producing a smooth surface just above the undisturbed soil. Subsequently a group of workers cleaned this surface with the aid of shovels. The archaeological features were marked and drawn to a scale of 1:40. Afterwards all features were cross-sectioned and their depth below the excavation surface was measured. However, with the exception of larger pits and wells, these sections were not drawn or described. This method proved to be sufficient for answering the questions which Verwers had formulated for the settlement level of his research.

The actual fieldwork was carried out by one or two technicians and supervised by a masters or doctoral student. They documented the features that they encountered in road routes and building plots, but they carried no responsibility for scientific aspects of the excavations or for publications. This remained Verwers’ responsibility. Here it should be mentioned that much of the work was carried out by the local amateur group, the Heemkundekring Maasland who (often in the weekends) excavated and documented hundreds of wells and large pits.

I will not discuss these field methods in further detail, but point out a few elements that influenced the possibilities for interpretation. In the first place, the absence of drawings and descriptions of cross-sections makes it almost impossible to re-assess the excavation plans, or to re-analyse construction details of building remains. Another problem – which adheres to old excavation data in general – is that most pits were considered to be refuse pits. Their contents were considered to be unstructured backfill mixed with refuse and they were excavated accordingly. Therefore structured deposits were rarely recognized and finds from layered deposits were not collected separately.

A final remark concerns the excavation strategy that was followed in Oss-Ussen. In general only road routes and building plots were excavated, which gave a general impression of the distribution of features, but provided little information about the internal structure and layout
of settlements and cemeteries. For the answering of these questions more extensive excavations were needed. They have indeed been carried out, but most of these larger excavations concern sites from the Roman period, although officially that period was not a part of the research project. As a result, we are relatively well informed about the structure and layout of settlements and cemeteries from the Roman period, but much less about the older ones. With hindsight, it is easy to explain this paradox. Since the internal structure of settlements and cemeteries, or their interrelation, were no primary research objective, the excavation strategy was mainly guided by the amount of features encountered in the road trenches that acted as an initial survey. As dispersed features were encountered everywhere, only concentrations received extra attention. This strategy implied, however, that settlements of the prehistoric period were difficult to trace. Schinkel’s publication of the Ussen data has shown us that until the Late Iron Age, settlements consisted of dispersed solitary farmsteads (Schinkel 1994). Because farms were rebuilt on different locations every time that a new house was needed, settlements of the Bronze Age and the Iron Age were low density sites and relatively difficult to find (figure 3). Only from the Late Iron Age onwards (ca 250 B.C.) farms were rebuilt on the same spot, which led to a better visibility due to the concentration of features. The

Figure 3. The distribution of farmsteads and other features dating to the Middle Iron Age (500 – 250 B.C.). The area presented measures ca 2 x 2 km.
visibility of the younger sites is also increased because in the Late Iron Age people built their farms closer to one another. In some cases the settlement areas were even enclosed by ditches (figure 4).

A similar tendency towards nucleation is visible in the cemeteries of Oss-Ussen: in the Bronze Age and the Iron Age graves occur dispersed in small groups (Van der Sanden 1994), but in the Roman period one large cemetery develops with a clear differentiation in grave size and content. The explanation of this development is a subject of interesting discussion, but that is beyond the scope of the present article.\textsuperscript{11}

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**The end of the Ussen project**

In 1981 Verwers decided that the micro-region Ussen had yielded enough data to enable an adequate reconstruction of the occupation history. Moreover, it had become almost the job of a lifetime to publish the enormous amount of data. To give an impression of the extent: more than a hundred house plans were recovered, hundreds of granaries and wells, and hundreds of graves. One draughtsman worked several years to reduce the field drawings manually from

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![Figure 4. The distribution of farmsteads and other features dating to the Roman period (12 B.C. – 250 A.D.). The area measures ca 2 x 2 km.](image-url)
scale 1:40 to scale 1:100. The resulting map consisted of 125 sheets, each measuring 100 x 100 cm, which could of course never be studied in its entirety on that scale. An overview became available in 1992, when Schinkel digitized a summary map on a scale 1:1000 that showed the distribution of the important features (Schinkel 1994, part I, 5).

Although an incredible amount of data had been collected, in the subsequent analysis several problems were encountered. To a certain extent they were related to the excavation strategy that had been followed. Partly the problems were connected to the fact that the publication was being prepared by archaeologists who had not witnessed the major part of the excavations in the field. As has been the case with so many large scale excavations, the results had only been published partly and in a preliminary form. The work on the ‘final’ publication was not started until eight years after the beginning of the excavations when Van der Sanden took charge of publishing the settlement data and Van den Broeke began developing a pottery chronology for the Iron Age. Later still, Hessing started the publication of the Roman cemetery.

While Verwers had decided to finish the Ussen project, Van der Sanden continued the excavations in the Roman settlement of Westerveld. The reason for his decision was that Westerveld was the first Roman settlement found in the southern Netherlands that was enclosed by a ditch system. Moreover, in the settlement different house types appeared to be present, which might be indicative of a social hierarchy. One farm had a porticus and a Roman style tiled roof (Van der Sanden 1987c, 64). Since several contemporary farms lacked these features, they have possibly been subordinate to the owner of the porticus house. This aspect asked for further investigation. When excavation of Westerveld finished in 1984, ca 65% of the total six hectares had been excavated. The remaining 35% was already destroyed by building activities or unavailable for research.

**The Maaskant project in the 1990s**

When the author was appointed in Leiden, in 1982, it was agreed that he should develop Bronze Age research in the southern Netherlands. In practice this implied settlement research because all (visible) cemeteries had become archaeological monuments. The problem, however, was that virtually no settlement finds from that period were known in the southern Netherlands. A good opportunity for settlement research presented itself in 1986 when the municipality of Oss prepared a new housing estate called Mikkeldonk. In this area, situated north of Ussen, two Middle Bronze Age wells had been found in 1976. As no building had taken place after that time, the find location had not been investigated any further. When the new estate was planned, these finds seemed a good starting point to search for a Bronze Age settlement. Much to our surprise, the assumption that the wells had been part of a farmyard was right and soon a house plan was discovered (Vasbinder and Fokkens 1987).

Two things became clear after that first season that would determine our future strategy. In the first place it proved to be extremely difficult to locate Bronze Age house plans because they lay dispersed and solitary. This meant that only if large areas were excavated or systematically surveyed we would be able to locate these isolated farmsteads. In the second place it...
became clear that it would not be possible to concentrate on research of the Bronze Age only. The area had been inhabited from the Late Neolithic through the Roman period, and settlements, cemeteries, sanctuaries and arable land — in fact the whole prehistoric landscape and its history of 2000 years — had been preserved in that area. With the experience of the Ussen project in mind, it was clear that continued research in that region could be of much more scientific value than excavations on locations that were geographically separated from each other.

So, once more excavations in Oss became the core of the Maaskant project, but with different research goals and adjusted methods. These new objectives were of course not contrived overnight. They were the result of discussions with colleagues, especially Van der Sanden and Schinkel, and of experiments with new theories and practices. Our attention became focused on the history of the cultural landscape rather than on culture history. In the introductory paragraph it was explained that in our view the cultural landscape is formed by many aspects: economy, social structure, cosmology, etc. We are trying to analyse how these aspects changed and how they constantly influenced the use and the perception of the landscape (see Fontijn 1996, Roymans 1995). Like Verwers, we distinguish different levels of analysis, but with different subjects and different objectives: the local communities are studied in micro-regions, their interrelations with other communities in the Maaskant region and their external relations within the Meuse-Demer-Scheldt area. In the following paragraphs the principal research problems for each of these levels will be discussed briefly.

**Research in micro-regions** Investigating the local community

Micro-regions are defined as restricted research areas that are considered the 'habitat' of local communities. The latter concept refers to a group of people that live together in close contact. Nowadays we encounter almost exclusively the nucleated settlement form of these communities: hamlets or villages, but nucleation in that sense is only a feature of the last 2000 years. In the prehistoric period farmsteads were self-supporting units that lay dispersed in the fields. Constantly their position was slightly shifted, leaving a diffuse pattern of settlement traces behind. Schinkel (1994) has called these wandering, or unsettled settlements. The distribution of farmsteads in figure 3, for instance, is probably the result of only three or four wandering farmsteads which together formed a local community. Such settlement patterns are difficult to interpret in terms of social structure because there are almost no ways to demonstrate social links between the dispersed farmsteads.

This leads to one of the important conclusions of the Ussen project: in order to study settlement landscapes meaningfully, one needs to investigate large areas systematically. For this purpose a new strategy was needed. In Oss-Ussen, the estate development (roads, buildings) determined our image of the prehistoric landscape, but we have already seen that this form of random sampling is not optimally suited for detailed settlement research. Presently we try to systematically survey extensive areas prior to the building activities. These surveys are not restricted to fieldwalking or boring because areas with a low density of features in the periphery of sites are very difficult to discover in that way. As much as possible our surveys consist of...
narrow test trenches (1.2 m wide) at regular intervals (every 10 m). In these trenches, features are not necessarily excavated, but after documentation they may be left for research later on. In this manner, ditch systems (e.g. field boundaries) can be traced and followed over long distances, small cemeteries and sanctuaries are discovered and the dispersed settlement pattern of the prehistoric period can be investigated (figure 5). Of course these trench surveys have only an indicative function. On the basis of these results locations of preferably more than one hectare are chosen for excavation, not only of sites, but also of areas outside settlements and cemeteries.

**An example of research in a micro-region Mettegeupel 1993 - 1995**

As an example of the type of research described in the foregoing, I will briefly present the results of the 1993-1995 excavations in the Mettegeupel housing estate. About 70 hectares of arable land were converted into residential area, of which about 20 hectares are shown in figure 5. Field walking by local archaeologists had revealed only a few finds of Iron Age pottery in this area. As no medieval plaggen soil obscured the prehistoric landscape, this seemed to indicate that it had not been inhabited densely. However, when a survey with trenches was conducted (figure 5), suddenly a totally different picture appeared. Indeed, the comparatively low lying north-west area contained no features at all. neither did the area south of the centre. In both regions only a shallow ditch system was present which dated from the late Iron Age. In the western part of the area, however, concentrations of features from different periods were found. In the survey trenches no house plans were detected. Clearly the trenches were too narrow to justify the conclusion that no structures were present in the area. It was decided to excavate an area as large as possible in the available time in order to study the nature and meaning of the features. In subsequent years two areas of over one hectare each could be investigated before our work was overtaken by building preparations. The finds probably represent a small part of the settlement history of a local community that occupied a territory ten times as large.

The first occupation phase in this area dates to the Middle Bronze Age (figure 6a). Several large pits were found, one of which was dug at some time between 1500 and 1400 B.C. Two of them have been interpreted as wells or pits for drenching cattle or sheep. They may have been located near or on arable land, but probably at a short distance of a farmstead.

For the next 800 years no activities are recorded. Possibly the area was used as arable land, but we have no evidence for that hypothesis. The only thing that we know for sure, is that prior to the Early Iron Age an open landscape had developed. Around 650 B.C., a farm was built in the western part of the area (figure 6b). Apart from a well, the remains of several outhouses (four and six posters) have been found on the yard, but presumably not all contemporary. Contrary to the normal situation of wandering farmsteads, the house was rebuilt on almost the same spot and with the same orientation, structure and dimensions. Therefore it is assumed that one house replaced the other.
Figure 5. Part of the Mettegeupel area (ca 350 x 450 m), surveyed and excavated between 1993 and 1995. See figure 3 (North-East) for the location in relation to Oss-Ussen. Presented are only those features that could be attributed to structures.
Figure 6. Mettegeupel area. Overview of five subsequent phases of occupation: a, Middle Bronze Age (ca 1450 B.C.); b, Early Iron Age (ca 650 B.C.); c, Middle Iron Age (ca 300 B.C.); d, Late Iron Age (ca 150 B.C.); e, Roman period (ca 100 A.D.).
At a distance of 200 m to the north-east another farmstead from the same period was discovered, but it is not clear whether both farms were contemporary. The low density of Early Iron Age farmsteads in the adjacent area does suggest that it was the successor or the predecessor of the two houses that were just described. Just to the North of the farm a low barrow had been erected that was surrounded by a rectangular ditch. However, as no datable burial was recovered we cannot be sure whether this was the grave of one of the inhabitants of the house. Neither are there indications that the grave was part of a larger urnfield cemetery of which the other graves have vanished.

After a continuous occupation of about 100 years, the area was not in use as a settlement area for about 250 years. It may have become arable land again, but this cannot be proved. The abandoned farmsteads may just as well have been remembered and respected as part of the family history. Through toponyms or through a characteristic vegetation or allotment even places that had not been used as settlement area for more than one generation might have been remembered. In fact, the area was again inhabited in the Middle Iron Age (ca 300 B.C.) and in the Late Iron Age (ca 150 B.C.), which suggests that the general position of former farmsteads was still ‘known’ and preferred as a new location over other possible locations. From this period at least four houses were recovered, probably representing two wandering farmsteads (figure 6c). At one point in time a farmyard (in the North) was palisaded, but to what purpose is not clear. Its 20 cm thick posts were set a 50 cm distance of each other, and it had a wide entrance, which does not indicate a defensive function. Within the palisaded area, apart from a house quite a number of ‘granaries’ were present.

After circa 100 years, in the Late Iron Age (ca 150 B.C.) again two farms were built (figure 6d). A new element of this period are shallow ditches. They divided the area in three zones, each with a concentration of features. In the southern area a well had been dug with a small
palisaded area next to it, interpreted as a pen for cattle or sheep (Van der Beek and Fokkens, forthcoming). Nearby a few ‘granaries’ had been built. The wells and the ‘granaries’ could have lain in the open field, but it is more likely that they were built on a farmyard.

Ditch systems from this period have also been recovered from other locations in the direct vicinity. This suggests that people started to organize the landscape in a more permanent layout. In this period people also started to rebuild their houses on the same plot and sometimes concentrated in small groups enclosed by a ditch. These enclosures have an open character that indicates a symbolic rather than a defensive function.

A considerable contrast is offered by the features of the Roman period (ca 100 A.D.). The settlement areas of the past seem to have been totally ignored. They were transformed into arable land with plots divided by shallow ditches (figure 6e). As the entire area to the west and to the east was investigated, we can be quite certain that the only settlements in the neighbourhood were located some 250 m further to the west and to the east (see also figure 4). From the Ussen data it also appears that the landscape was restructured in the Roman period. This development may well have been caused by social processes influenced by Roman rule, but this is not the suitable place to discuss the subject further. These issues are subject of investigation of a higher level of research, that of the Maaskant and the MDS region (Wesselingh, in prep.).

Research of the Maaskant region

The spatial framework for the Maaskant project comprises the whole area between the river Meuse, the rivers Leij and Aa, and the Peel marshes. These physical boundaries enclosed a region which prehistoric people possibly used to identify themselves with. They shared a past, they knew each other and probably could trace kinship ties. They had a profound knowledge of ‘their’ physical landscape and its history, and probably had accredited it with meanings that were unimportant or even incomprehensible for outsiders.

Of course these boundaries should not be seen as impermeable borders creating an island society. They consisted of wet zones alongside rivers and of an extensive bog peat and as such they may have had a special place in the cosmology. This is indicated, for instance, by the fact that rivers were used for hoarding. It is, however, still a matter of debate whether in the southern Netherlands – as in the North – peat bogs were used for similar rituals. In the Nordic world, including the northern Netherlands, peat bogs were intensively used for the deposition of valuable goods. In the extensive Peel marshes, however, apart from one find from the Roman period, no hoards have been discovered. The question is whether this is a matter of coincidence, which can be attributed to for instance the reclamation history, or whether marshes had a different place in the cosmology of the communities in the southern Netherlands. Recently a Ph.D. study was started to investigate bronze exchange and the social and cosmological aspects of hoarding (Fontijn, in prep.). This study will, of course, not be restricted to the Maaskant, but will comprise the whole Meuse-Demer-Scheldt area.

One of the ways to investigate these questions is a careful analysis of the distribution of finds in the region, especially in relation to their context. Most of these finds have been collected by
local archaeologists. They enable us to produce distribution maps that can serve as a framework and often as a point of departure for the research that is carried out in micro-regions. These distribution maps show, for instance, that in the whole Maaskant region only one large cemetery is known, which apparently has been used continuously from the Late Neolithic through the Early Iron Age. This cemetery is situated 5 km to the south of Oss-Ussen. It was discovered in the 1930s with the find of the well known Hallstatt-type grave of Oss (Holwerda 1934, Modderman 1964). One of the questions to be answered is whether this cemetery was unique and in use by a larger social unit than a local community, or whether we should expect similar (invisible or already destroyed) cemeteries in the habitation area of every local community.

Unfortunately, the location of the cemetery was never properly fixed and therefore it was not protected as a monument. Since the 1950s its probable location has been used as a breaker’s yard and in the near future the whole area of about 10 hectares will have to be cleaned and will be transformed into an industrial estate. Consequently the area will have to be excavated, which of course presents an excellent opportunity to restudy this cemetery and its biography (cf. Roymans 1995). It will be equally important to locate the settlement(s) in the vicinity and investigate their relationship to the cemetery.

The Maaskant and the Meuse-Demer-Scheldt area

On the highest level of analysis, the Maaskant is compared with the neighbouring regions against the background of supra-regional developments. The reference area is the southern Netherlands and the adjacent parts of Belgium, an area indicated by the colleagues from Amsterdam as the Meuse-Demer-Scheldt (MDS) area (Roymans, this volume). This region is considered to be a meaningful spatial framework for the description and explanation of political, economic and social developments in the Maaskant.

Recently a joint project with the Amsterdam Institute (IP) started, subsidised by the Dutch Organisation for Scientific Research (NWO). In the framework of this project various aspects of settlement and landscape in the MDS area will be studied by a number of Ph.D. students and post-doctoral research fellows. These studies connect with existing researches in both universities. In Leiden these concern, among others, a reanalysis of the concept of the Middle Bronze Age ‘Hilversum Culture’ (Theunissen, in prep.), the development of agrarian methods and their social and ideological aspects (De Hingh, in prep.), Iron Age occupation of Midden-Delfland (Abbink 1993, Koot 1996), Late Neolithic culture change (Fokkens 1986; forthcoming a) and social processes in Bronze Age communities (Fokkens, forthcoming b). These projects are not all part of the Maaskant project, but fit into a larger research project concerning agrarian communities in the Rhine-Meuse Basin.
Concluding remarks

In this article, I have described the theoretical and methodical developments over the last 20 years within the Maaskant project. These can be characterized as the transformation from a traditional culture-historical approach to the analysis of the cultural landscape in its broadest meaning. We have, however, not reached a terminus. As the project continues also its theoretical and methodical development will, hopefully, continue. I have described the aims and methods of the Maaskant and Ussen projects critically, but this does not mean that the data gathered in the 1970s have no value. These data concern other, but supplementary, dimensions of the communities that we are studying. Important conclusions have been drawn from them and their potential has not been exhausted yet.

One conclusion that can be drawn from the project is particularly important, both for scientific research and for the management of our cultural heritage. This is the conclusion that continued research in micro-regions is the only way to study dispersed settlement patterns and the relations between settlements, cemeteries, arable land, sanctuaries, etc. Archaeological research, but also the protection of cultural heritage, is still very much site oriented. Almost per definition our monuments are restricted (point) locations and rarely concern more extensive regions. This perception of cultural heritage as a collection of sites needs to be changed before we find ourselves in a situation where we have only monuments left, while their past context has disappeared uninvestigated. The concept site focuses our attention in the wrong direction, away from the cultural landscape that once was a integrated whole of social, economical and cosmological spaces (cf. Robberts 1996, figure 1.5).

This thesis will of course be criticised as being unrealistic, because there is supposedly no money for the protection or excavation of cultural landscapes. That does, however, not imply that we should not try our best to change our own attitude and that of the public. When a landscape approach would be more generally accepted, money for protection or investigation might follow as well.

Of course we will always have to make choices, but in order to make these choices on a sound basis a change of methods is needed. In the Netherlands intensive field walking surveys, sometimes with an additional coring campaign are considered to provide sufficient insight in the distribution of sites. In my opinion, these methods ought to be supplemented with a systematic survey with narrow trenches, or nondestructive excavation as it has been called. Only after that stage has been completed will we be able to make justified choices, if we have to. Instead of working from the thesis that there is no site until it has been discovered, we need to think the other way around: the whole landscape is a site, there is only variability in its intensity of use.

Notes

1 I want to thank the members of the 'section Metal Ages' (see note 13) for their critical comments on the first draft of this paper and Monique van den Dries for a thorough reading of the last but one draft. Peter Heavens (IPL) prepared the drawings.
So far three more extensive publications have appeared: Fokkens 1991a, 1991b, 1993.

Schinkel's study comprises the Bronze Age and Iron Age settlements, cemeteries and sanctuaries that were excavated in Oss-Ussen in the period between 1976 and 1984. The Roman settlements and cemetery are dealt with in separate studies (see note 12). A preliminary overview of the entire project has been published by Van der Sanden and Van der Broeke (1987).

A detailed history of the Ussen project and its aims can be found in Van der Sanden 1987a, b, c. Presently the entire excavated area (presented in figures 3 and 4) covers ca 50 hectares.

Van der Sanden and I both studied in Groningen with Newell, Van der Waals and Waterbolk, among others.

The largest groups of local archaeologists were the Heemkundekring Maasland and the Archäologische Werkgemeenschap Nederland afdeling Nijmegen.

In 1957 P.J.R. Modderman, then of the ROB, used a digging machine for the first time at his excavations at Elsloo.

Considering the research policy of the Leiden Institute this is strange, since officially the Roman period was not investigated by the IPL. Because the Leiden Institute originally had only a few staff members (two archaeologists), it was decided that research would be restricted to the prehistoric periods. The Roman sites that were recovered 'by accident' were not left unexcavated, but their analysis was to be carried out by others.

The average life span of prehistoric houses is presently considered to be 25 years. This is based on experimental archaeology and on dendrochronological research of wetland sites (Schinkel 1994, part I, 27).

The dispersed character of farmsteads and - until recently - the absence of a tradition of largescale excavations may well account for the fact that we do know very little about prehistoric settlements in adjacent areas of Belgium and Northern France. Another reason may be the presence of a different 'house landscape' (Roymans and Fokkens 1991, 8).

Cf. Schinkel 1994; Van der Beek and Fokkens, forthcoming; Wesselingh, in prep.

In 1987 Van der Sanden left the IPL to accept a job at the Provinciaal Museum Drenthe in Assen. The publication of the Ussen excavations was subsequently taken over by Schinkel. Because of the enormous quantity of material and of the different research questions involved, Schinkel wrote his Ph.D. dissertation about the prehistoric settlements in Ussen (Schinkel 1994), while the Roman settlements became the subject of a separate Ph.D.-study by Wesselingh (Wesselingh, in prep.).

At present a much larger group of people is involved in discussions about method and theory of the Maaskant project. They all carry out research concerning the metal Ages. Ineke Abbink, Zita van der Beek, Peter van den Broeke, David Fontijn, Anne de Hingh, Cees Koot, Liesbeth Theunissen and Dieke Wesselingh. For more information visit our internet site: http://archweb.leidenuniv.nl/fpp/maaskant/.

The estimated size of a local community is based on evidence from urnfield research as well (cf. Roymans and Fokkens 1991, 13-15).

This method has been adapted from the sondage à cinq pourcent that is used to survey large area in France (Lorraine: Blouet et al. 1992; Compiègne area: M. Talon, pers. comm.) and is now also practised in Belgium by the colleagues from Gent (Ampe et al. 1995). In the Maaskant we have applied this method for the first time in 1993.

The available funds enabled us to excavate only four months in three years. The excavations were carried out with the aid of students from the Leiden Institute (IPL).

The 14C-dates of wells belonging to the houses lay only 20 years apart, but when they are cali-
brated a range of about 120 years is possible. For the well near the first house a probable date between 652 B.C. and 642 B.C. could be suggested after analysis of the pottery dumped in the fill (pers. comm. P.W. van den Broeke).

As dating evidence for the palisade and the out-houses is lacking, the association with the house is an assumption.

Van den Broeke (pers. comm.) sees no differences in pottery from the areas north of the Meuse or south of the Aa and the Maaskant region. In his opinion this indicates that communication was frequent and that the Maaskant area was not isolated in that respect.

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