

# Effects of the ratification of the Malta Convention in 2007 on excavation size in The Netherlands

An analysis of excavation reports from 1999 and 2008

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## 1. Introduction

In the 1960's the major issue concerning archaeological heritage was clandestine excavations, which meant that a majority of excavations were not supervised or controlled ([www.coe.int](http://www.coe.int)). And because of this the treaties aimed at protecting archaeological heritage were based on information extraction and the means through which this was to be done. However, by the late 20th century archaeology was becoming more and more entrenched in the development of building projects. The possible loss of archaeological heritage meant that to counter these developments archaeology needed to be engaged in a different way. Therefore in 1992 the Council of Europe convened in Valletta, on the island of Malta, to create the groundwork through which the European Convention on the Protection of Archaeological Heritage came into being.

The Malta Convention, as the treaty is commonly known, is a framework of articles based on archaeological heritage management. In the treaty the point is stressed that archaeological heritage is foremost a responsibility of each member state, there is also a mutual experience exchange of all European countries ([www.coe.int](http://www.coe.int)). The treaty contains ten subjects, covered in eighteen articles, dealing with various subjects on archaeological heritage management, such as the definition of archaeological heritage, financing research and conservation and promotion of public awareness.

Even though excavation is a large part of the treaty, the main principles of the treaty the treaty are based upon in situ preservation. As article 4 shows:

### *"Article 4*

*Each Party undertakes to implement measures for the physical protection of the archaeological heritage, making provision, as circumstances demand:*

- for the acquisition or protection by other appropriate means by the authorities of areas intended to constitute archaeological reserves;*
- for the conservation and maintenance of the archaeological heritage, preferably in situ;*
- for appropriate storage places for archaeological remains which have been removed from their original location."*

([www.coe.int](http://www.coe.int))

The treaty is closely related to previous treaties insofar as the base principles for archaeological heritage management. However, where the previous treaty of 1969 by the Council of Europe was aimed at archaeological knowledge acquisition and distribution of that knowledge, the 1992 treaty was aimed at preservation. The

difference between these treaties signifies a shift in archaeological practice.

The Netherlands signed the treaty in 1992, but the ratification was not completed until 2007. This ratification led to the new “Wet op Archeologische Monumentenzorg” (revised Monument Act) of 2007, through which the treaty was implemented in the Dutch law which could work for The Netherlands. From the signing of the Malta Convention in 1992 the archaeological practice started to change, up to the revised monument act in 2007, and after the law was set in place, more changes were forced upon the archaeological practise.

One of the changes is that large scale excavations have decreased in size from the 70’s until now (Bazelmans 2012, 19). It seems that in the 1970’s and 1980’s the archaeological excavations were far larger and more thoroughly researched compared to excavations in the last decades. Also, the amount of research compared to all archaeological research actually leading to an excavation has decreased largely in the last 20 years (Bazelmans 2012, 15). This seems to be a contradiction in the absolute amount of excavations having increased since the Malta Convention (1992) (Van den Dries 2011; Van den Dries and van der Linde 2012), see figure 1.

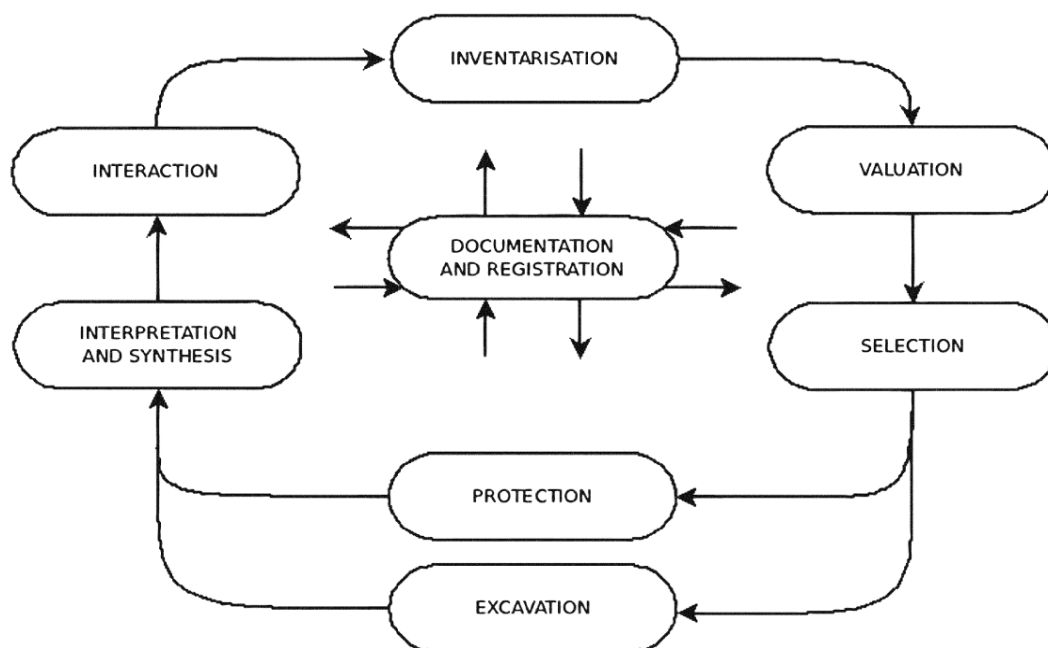


Figure 1: The Dutch archaeological heritage management cycle (Bazelmans 2012, 12).

The size of archaeological excavation is still not clearly researched, although Bazelmans does give cause to further research on this question. It is this unknown part that, in my opinion, is an interesting case for further study. Therefore the main question of this thesis is: Has the ratification of the Malta Convention in 2007 and the revised Monument Act, which followed the ratification, caused a decrease in the size of excavations between the years 1999 and 2008?

The base of this research will focus on excavation reports from the years 1999 and 2008. These years were chosen as significant changes happened in or around them. 1999 signifies the year in which we see more reported excavation in Archis, the archaeological information system of The Netherlands. As stated before, the signing of the Malta Convention in 1992 already started a chain of gradual changes in the archaeological practice. The year 1999 gives a balance of a situation still in the rough process of implementing these changes, as well as being a year in which the IT-technology has started to become more a part of the archaeological filing process, as seen in the search results in Archis. It is also the year in which the liberalisation of archaeological companies started (Willems 2007, 47).

2008 was not only a peak year in archaeological research, but it also is the first year after the ratification of the Malta Convention and the year in which the revised monument act was approved (2007). It seemed likely that most reports benefiting this research could be found from that year. The years beyond this up until the present day do not have complete datasets through Archis. This is mainly due to reports which still need to be added to the database.

It is generally accepted that archaeology has changed since Malta was introduced, however the ratification of Malta is still very recent and not all effects can be visible yet. In the last years there have been numerous researches done on change after Malta (Bazelmans 2012; Van den Dries 2011; Van den Dries en Van der Linde 2012), and the focus of these researches has been on the measure of change in relation to an intangible concept of quality which is to be expected from archaeology. Archaeology since Malta has been about creating a more comprehensible archaeology and subsequently being able to better protect archaeological heritage ([www.coe.int](http://www.coe.int)). The council claims that there is a general fear among the member states that archaeology is going to be lost in the future due to large planning schemes.

The implementation of the Malta Convention in 2007 in the revised Monument Act made sure that municipalities would be responsible for the Archaeological Heritage Management. In the years 1995 – 2007 the amount of municipalities with a municipal archaeologist has risen from 22 to 29, while 38 municipalities appointed an archaeological employee or contributed to a shared regional archaeologist (Erfgoedbalans 2009, p. 172).

Next to the governmental changes, the Malta Convention also contributed to the start of private archaeological companies, the capitalist approach (Van den Dries 2011, 595). This has led to a shift in archaeological practice between private and governmental companies.

As Aitchison shows the Netherlands had a system of heavy state regulation up until the 1990's (Aitchison 2009, 662). The foundation for this new type of



regulation was a reflection of developments years before. In the 1980's the chances of finding work after studying archaeology were slim to none in The Netherlands (Van der Velde 2011, 1). Because of the lack of opportunities in the public sector there were some who decided to create their own path just outside the boundaries of archaeology, boundaries which were only to be legally maintained by archaeologists. Because of this 'private' companies like the Regional Archaeological Archiving Project (RAAP) were set up (Van der Velde 2011; Eickhoff 2005). Though these companies were private, they liaised with governmental or university archaeology departments to get work or excavate without a license (Willems 2007, 50; Eickhof 2005).

In 1999 a new course for archaeological liberalisation started by a report written by then secretary Van der Ploeg (Willems 2007, 47). In 2001 a temporary amendment came in place that allowed private companies to excavate under their own banner (Erfgoedbalans 2009, p. 191; Van der Laan 2004), though all companies should apply for an excavation license and follow the quality assurance rules of the Kwaliteitsnorm Nederlandse Archeologie (KNA; Quality norm of Dutch Archaeology).

The KNA came into being in 2000 (SIKB 2007) and is a good example of a system of self regulation (Bazelmans 2012, 11). It was created to act through decisions made by the Cultural Heritage Agency in stead of the Minister of Culture. The KNA is the base through which anyone who is capable of excavating is allowed to work. The conditions through which archaeologists are permitted to excavate are set out in the KNA (Bazelmans 2012, 11).

The KNA has used article 4 of the Malta Convention to create new guideline for the Dutch archaeology process, as shown in the figure 1. The actual step of excavation is right at the bottom of the diagram. The archaeological process starts in an office, with Desk Based research. This research is based largely on maps that show levels of archaeological expectation made by archaeologists for municipalities and with the use of historical data from previous research. The importance of preserving, in situ or ex situ, is clearly shown. Actual excavation is one of the three options after research.

The Netherlands has, as Kristiansen puts it, adopted a variation between *"research priorities versus methodological standards"* (Kristiansen 2009, 646). This means that The Netherlands is striving towards a basic methodology which can be maintained throughout every excavation and by whomever excavates. The research priorities are maintained by the government through the project outline. This leaves the developer free to choose an excavator, but ensures that the quality will be equal throughout.

A significant change in the way Dutch archaeology has changed is in the way

governmental and private companies are part of the archaeological process, and even more, the way that urban archaeology has changed. At the Malta Convention in 1992 special attention was directed at the experience with urban archaeology in different countries (Cultural Heritage Committee, 2000). In the Netherlands the urban archaeology has a large history. In the first years after the signing of the Malta Convention in 1992, the urban archaeology in the Netherlands saw a change in the way of dealing with heritage. Preservation became the norm more than the Conventional way of dealing with archaeology, by means of restoration and display (Sarfatij, 1997).

Dutch urban archaeology has seen a shift in the way archaeologists are positioned within urban structure. Ahead of the 'Archaeology and the Urban Project – a code of good practice' that the Cultural Heritage Committee adopted in 2000, Dutch archaeologists started to become part of the whole urban planning process (Erfgoedbalans 2009, 170). In the urban archaeology good practice code by the CHC, the close connection between government and planners, architects and developers and archaeologists is highlighted. It bases the urban archaeology on two fundamentals. *"The urban and social typology and the evolution to the present, and an economic dimension, focusing on past techniques and developments of applied and experimental research on materials and their conservation."* (Cultural Heritage Committee 2000, 3). Next to that, the code stresses the preservation in situ, but emphasises that this decision needs to be made in conjunction with all parties. The codes gives points on good practice for all the three parties stated above, with the mutual message being the implementation of archaeology in the planning and development processes.

Besides shifts in urban archaeology the Malta Convention has had an impact on the funding of archaeological research. This has led to an increase in research, as stated before, and more work for archaeological companies, which is quite interesting when you consider that archaeological excavations have decreased in personnel on site in recent years, according to Van der Velde (Van der Velde 2011, 8). As more and more machines are being used to speed up excavations.

Malta has created a way for countries to maintain their heritage in a better way, but the Netherlands' "neo-liberal way" (Bazelmans 2012, 9) of implementing these guidelines has meant a great increase in economic independence for archaeological organisations. This, together with requirements for archaeological research on every site which will be developed in the Netherlands, is a breeding ground for cheaper ways of researching archaeology. This has the possibility of leading to more excavations, however the thoroughness of these excavations could be discussed. But combined with the processes which archaeologists have to adhere to according to the KNA the developments in the archaeological research

process become more striking. This has led to the growth of archaeological companies.

Archaeological independence can be considered a good thing when looking at the aforementioned, but needless to say there are also problems. The possibilities for stable funding, as addressed before, are always an issue. Van der Velde suggests, mainly through his own experience or at least that of ADC (Archeologisch Diensten Centrum (Roughly translated the archaeological services centre)), the company he works for, that one will have to become creative in order to gain extra financing. Van der Velde illustrates that, to be subsidised, companies had to create a site of national importance, as such three researches had to be combined to create a synthesis which lead to the grant (Van der Velde 2011, 4). I believe this could be considered a problem for the future. Costs for archaeological research have decreased and the efficiency of archaeological research has increased through various means. This is as much born through necessity as it is through natural development. The need for more archaeological research has gone hand in hand with monetary obligations faced by developers or private citizens. And although costs are set beforehand on excavations, we must consider the possibility that companies might need to do a lot more work to gain financing, when archaeology could become endangered in the future.

As with any new law, boundaries or other 'aids' that are aimed at benefiting a society that according to the creators lacks these set rules, Malta's implementation started a discussion on the changes which have occurred since its introduction. As with all new rules one cannot simply expect to have a flawless transition from the old set of rules to the new overnight. The ratification process is not a fast one as shown in the case of the Netherlands (15 years) and some countries are still in the process of ratifying (Van den Dries 2011). With the ratification of Malta come problems which vary from country to country. As Aitchison has shown (Aitchison 2009) the effects Malta has had within Western Europe are divergent. Generally the effect of a more regulated system of archaeological development has led to less archaeological research. This is not solely down to new regulations, and has to be contributed to a downfall in the building of housing in countries like Ireland and Britain (Aitchison 2009, 662-663). This would therefore suggest that natural developments in other sectors of economic developments have led to a decrease in excavations. This seems contradictory as one would expect natural growth in economies to be accompanied by growth in every sector connected to that economy. Moreover, in this case, we know that 2008 saw the highest amount of excavations until then and that the decline seen in 2009 is most likely due to the economic crisis which was starting to have an impact. As this is the case for The Netherlands, can we therefore state that The Netherlands is one of the

exceptions to the effects Aitchison poses? This is a difficult question to answer. The Netherlands has seen a big increase in archaeological development up until 2008, but the developments have led to a shift in archaeological research. This means that the amount of excavations could have increased, but as a percentage of the total amount of research done within the field of archaeology could have decreased. In relative terms then Aitchison could quite possibly be right for The Netherlands.

If we consider changes that have already happened it could lead to speculation about the future. It is therefore necessary to consider measurable data and subsequent data schematics, which will provide a principle means of judging development. Luckily for archaeologists there is always data to be judged and analysed. The only problem with data arises when one considers the possibility of its value compared to the greater scope. There is always the possibility of staring blindly at something insignificant to find out that the loss of it would mean nothing to the structure of archaeology. This research shall focus on developments in excavations. The principle means through which archaeology functioned in previous decades. As there has already been discussion on the subject of Malta, but mainly through questions which have arisen during developments in the field of archaeology, excavations could give us the solid data needed to address this problem.

In the next chapter, *Chapter 2 Acquiring data*, the emphasis lies on the framework on which this thesis is based. It will look at the parameters, context and means of acquiring data. The research based on the parameters set out in chapter 2, are listed in *Chapter 3 Results*. *Chapter 4, Discussion*, will compare the results of chapter 3 with the general discussion about the influence of the Malta Convention and its ratification for The Netherlands. Lastly, in *Chapter 5 Conclusion*, the main question of the thesis will be assessed.

## 2. Acquiring information

### 2.1. Methods

In this research I used the excavation reports that are presented after an excavation has taken place and gives relevant information about the excavation. As a starting point I chose to use two reference years significant in the changing process of archaeological practice since the Malta Convention (1992).

As shortly mentioned in the introduction, the reason for choosing 1999 is twofold. On the one hand it is a year in which the KNA quality guidelines did not yet exist and private companies were, with two exceptions of RAAP and ADC, not allowed to excavate. On the other hand it is a year in which the use of Archis (online Dutch archaeological database), the main base of information gathering of this research, shows a greater amount of activity in comparison with earlier years. This year is, as Willems explains, the start of the second period of Malta change, in which a new course is set for the archaeological practices (Willems 2007, 47).

2008 is the year after the ratification of the Malta Convention and the year after which the revised Monument Act was signed, on the 1st of September 2007 (Erfgoedbalans 2009, 172). In the years running up to 2007, small changes have been implemented which are formalised in the revised Monument Act, such as the liberalisation of archaeological companies and the creation of the KNA. The KNA states an archiving period for excavation reports. Reports should be archived and published in Archis within 2 years after the end of the excavation (SKIB KNA version 3.2, part 4, 3-4). In theory, all reports of excavations that have started in 2008 should now be published on Archis and would give a solid base for the research.

For this research and to answer my research question as good as possible, I have only gathered information of excavations and their excavation reports. The excavation reports should generally hold information on location, finds, background and size, as also stated in the protocol of standard excavation reports of the KNA (SIKB KNA version 3.2, part 4, 30-31). As the first version of the KNA was made in 2002, it does not apply to the reports found in 1999, which could lead to incomplete information. For the full protocol for standard excavation reports, see the SKIB website ([www.sikb.nl](http://www.sikb.nl)).

### 2.2. Archis

The starting point for this research is the online Dutch archaeological database Archis (which is currently operating in its second version) ([archis2.archis.nl](http://archis2.archis.nl)). Archis is a database in which information on excavations must be added by archaeologists of the excavating company. Archis itself is maintained by the RCE (National cultural

heritage agency) ([www.cultureelerfgoed.nl](http://www.cultureelerfgoed.nl)). Archaeologists are obliged to present the results of their excavations in Archis. In this way Archis is a self-completing database, in which archaeologists can look up data beneficial to their research.

In Archis data is added by geographical location and type of archaeological research. Information on location, a map of the area, information on client and excavator can all be added in Archis, as well as references to programmes of requirements ([archis2.archis.nl](http://archis2.archis.nl)). The database should function as a base in which archaeologists and other parties can find data on previous archaeological research and expectation maps. This approach should lead to more information funded archaeological research, but also poses difficulties. As with every instrument that is formed to store and locate information, the danger is that it can be used too much as a given basis for information, while a database could always contain wrong information or no information at all regarding location.

The criteria used for this research had to confine a usable set of information, which could lead to the main question of this thesis. The criteria were thus:

- The archaeological research had to be an excavation.
- The start of the excavation had to be in 1999 or 2008.

The difficulty with the last criteria is that beginning in, for example, 2008 does not necessarily mean finishing in that year. As the research continued it became clear that research starting in 2008 but not finishing in 2008 could not be used unless there was a clear statement in the report about which part was finished in 2008. Excavations which started in 2008 and had clear dates of excavation and research were used, as the data itself could be separated into the exact dates when excavation took place. Concerning data in some reports there is little to say at this point, except that the aforementioned data needed to be present at the very least. Some reports do not state anything on this matter. In many of these cases Archis did not have much more information. The results of this can be seen in Appendix A, tables 1 and 2, and Appendix B, tables 1 and 2.

### 2.3. Reports

The reports have to follow strict guidelines, set up by the KNA. Even though the KNA guidelines were applied together with the revised monument act in 2007, one should be able to expect that the basic information needed for this research is readily available to us for any excavation, as these facts cover everything needed to compare excavations to one another. And according to the Erfgoedinspectie, in an investigation into the quality of reports in 2006, 52% of the reports lacked a clear definition of the researched location (Erfgoedinspectie 2008). 85% of the reports had the necessary background information according to the Erfgoedinspectie, which is not the amount I have found. In this research only 4 of 20 (20%) reports

found for 1999 and 52 of 92 (57%) reports found for 2008 have all information necessary (see tables 2, 3 and 4 in chapter 3). This is just more than half for 2008 and for 1999 it is less than a fifth, and this is only for the reports that were found. I realise that necessary information in this case could differ, however, the information necessary for this research is information required to identify the defining qualities of archaeological excavations in general. And of those results some were calculated manually by using definitions of locations published on websites related to the municipalities where the research had taken place. For the two years there are 203 reported excavations in total, of these observations I've only found 130 reports, of which some were incomplete. Many of the reports that were incomplete, had no clear determination of either size or location. Which means that further research into the development of size and geographical spread of excavations is bound to be influenced in a negative way.

Because of the type of research, the main objects are excavation reports found in Archis and via other means. Within Archis it is possible to discern the type of research you are looking for and filter according to whichever data you need. The difficulty is that Archis is made by the companies that add information to it, which does not necessarily mean it's correct. Even the website [cultureelerfgoed](http://cultureelerfgoed.nl), the website belonging to the RCE, states that this is the case ([www.cultureelerfgoed.nl](http://www.cultureelerfgoed.nl)). The website also states that Archis is an automatised system, through which certain aspects, such as maps of the different levels of soil and the indicative map with archaeological values, can be accessed. As it stands today the system was set up by the RCE and left more or less to its own. Founded between 1987 and 1988 by IPP (now AAC, Universiteit van Amsterdam), the IPL (now Faculty of Archaeology, Rijksuniversiteit Leiden) het BAI (now GIA, Rijksuniversiteit Groningen) and the ROB (now RCE, Rijksdienst voor het Cultureel Erfgoed) Archis was meant to serve as a scientific starting point for archaeological information gathering and further research for both archaeologists and heritage studies in general (according to the national research agenda archaeology, the NoaA) ([www.noaa.nl](http://www.noaa.nl)). According to the NoaA Archis has not really been updated very much, and furthermore has not evolved into the entity for which it was created. It is being updated, as we are in version 2 at the moment and version 3 is on its way, but these updates are aimed at improving the system and less the method of maintaining it. The database is accessible only to archaeologists or those with a clear interest in archaeological research through an application process, therefore it is not a publicly accessible system.

An important side note for the study of excavation reports is issue of reliability and completeness. Wiemer shows that around 1999 there were clear indications that Archis was not as correct as one might expect (Wiemer 2002, 105).

The amount of bad descriptions of location or bad descriptions of chance finds is abundant. This is a huge difficulty when considering the acquisition of quality data. Which is emphasised when we look at the defining part of the definition of quality: "...that make the product or service fulfil expectations or demands" (Wiemer 2002, 103).

When discussing a research which is based on results found in reports, it is imperative that the resources are 'quality assured'. Wiemer's research dates from 2002 and does not include the results of the implementation of the KNA created that year, but it forebodes a trend in report quality. The Erfgoedinspectie (the Dutch heritage inspectorate) actually shows that problems with the reports are not yet gone (Erfgoedinspectie 2010, 17-32). In 2007 only 76% of the reports were published within the two year deadline. And in 2009 this had increased to 86%. This still means that almost a sixth of the research surrounding excavations has not yet been completed. If we combine this with Wiemer's research the numbers increase even further. As Wiemer states we are missing 11,000 of a total of 60,000 observations recorded in Archis, which is roughly 18%. And, as the Erfgoedinspectie states, of all the reports finished in 2009 only 38% are available at the RCE and publicly accessible (Erfgoedinspectie 2010, 6-7). Which is a very low figure. If one were to look for reports concerning archaeological excavations in 2007, it would therefore mean that the misguided observations coupled with the lack of reports in general could relate to low quality data.

#### 2.4. Data

When searching for data, the results have been limited to the exact year, which means the date in which Archis reported the excavation would take place. Naturally there is some loss of data to be expected as, for instance, some researchers might add new excavations and later find out that the project was delayed for instance. But then again during the course of the research new data might be found corresponding to applications of earlier years, but excavated in the period of interest. These reports have been added to the list, if they were found in the initial research.

When looking for the years around which the research has been done, parameters were formed. Which data is available to us? What information needs to be acquired to define the volume of an excavation site? As such these parameters should both help with the 'relative part', the part of the research focused on the comparison of data to each other, and aid the research as guidelines for the conclusions:

- Size of area of plan
- Size of excavation as a percentage of the planning area



- Number of excavation pits
- Nature of excavation (rural or urban)
- Estimated duration of excavation
- Actual duration of excavation
- Motive

I realise that not all of these parameters are directly related to actual excavation size. They are however related to the reason behind excavation size. This data can show us the differences in size as related to location and motives behind research. These can in turn be related to the general developments that have occurred during the period in which Malta was in use.

Within these parameters there will be a lot of cross-referencing. Because, simply said, relative volume can only be judged related to every aspect of an excavation available. We must compare this to time, location (urban or rural) and so on. In a way this will make the results more 3-dimensional.

#### 2.5. Further data retrieval

The first step after I completed a list of excavation research numbers in Archis, was to gather the available reports. During my search through Archis I found roughly half of the reports for 2008 but next to nothing for 1999. A few visits to the RCE in Amersfoort provided some more. Many of the reports, for 1999 almost all and some of 2008, however were found in DANS, a public database with restricted membership per discipline ([www.dans.knaw.nl](http://www.dans.knaw.nl)). In this database most of the reports are to be found for any year. The difficulty with DANS, or more precise with the archaeologists responsible for uploading the files, is that the names of almost every excavation report I needed had a different name to the one in Archis. During the search reports were also found which had not been added to Archis. These reports were studied and if they adhered to the aforementioned criteria they were added to the list.

As DANS is based roughly on the same system as Archis, the data added to it will in most cases be the same. It does however appear that in certain cases the person(s) responsible for uploading the reports to Archis and DANS neglected to upload it to Archis but instead referred to DANS in Archis, which makes Archis obsolete.

#### 2.6. Tables

The amount of data coming from the reports had to be categorised. The parameters added to the tables are selected based on availability in the reports. Not all reports contained correlating data, which can be seen in Appendix B, tables 1 and 2.

This led to the following parameters:

- Municipality (Through Archis)
- City/Town (Through Archis)
- Province (Through Archis)
- Name research (Mainly through Archis, rest through DANS)
- Research notification number (Through Archis)
- Toponym (Through Archis)
- Client (Through Archis)
- Executed by (Through Archis)
- Motive (Through Archis)
- Size of plan (Through reports)
- Amount of excavation pits (Through reports)
- Size of excavation plot (Through reports)
- Nature of location (Through myself)
- Estimated work (Through Archis)
- Start date (Through Archis and reports)
- Actual work (Through reports)
- Source of research report (Archis, DANS or RCE)

Municipality, City / Town and Province create an idea of geographical spread. The relevance of geographical location is down to other researches being done through geographical spread as well. Bazelmans and Van den Dries both discuss geographical location compared to archaeological research in their work (Van den Dries et al. 2010; Bazelmans 2012). For instance Bazelmans shows the geographical spread of excavations compared to their time. And the results seems to compare closely to what one would expect to find. The longer excavations seem to be mainly in urbanised areas. But does this also mean that the size of these excavation is therefore adapted to the location? This I hope to find out.

Name research, Research Notification number and Toponym are administrative data used in Archis and in this research to locate specific reports.

The client is the one who ultimately starts and pays for the research. A distinction will be made only between Government and Private clients. In the light of the implementation of the Malta Convention the assumption can be made that there is an increase in Private clients, due to the fact that archeological excavation has become obligatory for the landowner. The development of larger housing projects, Vinex projects, can indicate that larger excavations are more likely to have a Government client than smaller excavations, which may be local and more restricted.

Excavated by: The company that ultimately excavates the location. A distinction will be made into Government and Private companies. As with clients, it will be interesting to see the development, if there is any, in the use of Government

and Private companies. Also the connection between client and excavator can shed light on the changing climate in archaeological excavations. This will not be the main focus of the research, but it might add additional information to the overall Malta Convention discussion.

Motive: In Archis administrators enter a motive for the archaeological excavation. This can be housing developments, or road works for example. At the start of this research the exact validity of this parameter is not very clear, but might give additional information in later chapters.

Size of plan: The size of the plan gives an indication on the size and type of excavation. In some cases the complete plan is excavated, but it might also be that only some parts of a larger plan will be excavated.

Amount of excavation pits: Besides the size of the planning area, the amount of pits can give information on the extent of an excavation. It is very difficult and not straightforward, as the reason for choosing the size and location of the pit can be very broad.

Size of excavation plot: This gives us a clear indication of the extent of the excavation, although as a side note one should keep in mind that excavating is not a superficial exercise but that several layers may prove a very small excavation plot to be a large scale excavation.

The nature of the location focuses on the site and its location in a town, city or other. The terms used are urban and rural. Urban in this research is an enclosed area, defined by surrounding buildings. The area is limited in its design by these boundaries and thus relatively cramped for space. Rural is an area which has no clear boundaries besides possible geographical features and is much larger than building sites in cities, with at least 3 sides facing 'open' landscape. Open in this sense only being related to human built structures.

The amount of work estimated in days by the companies excavating is indicated at the start of the excavation. Based on previous research such as desk based research or coring and possibly the location and size, companies indicate their workload. This has a monetary motive as well as giving insight into the size of an excavations time scale. Coring and desk based research have become a larger part of the archaeological process as well as newer technology used in excavations (Van der Velde 2011), the assumption that the relative time of an excavation has become shorter and more effective might be seen in this table. This process might have been 'quickenened' by the starting economic crisis and funding problems several companies have had. As stated before, this research will not deal with the potential influence of the economic crisis which started in 2008, but we can envision the possible influence on later excavations.

The start date given in Archis has been used as a base point for the criteria on which an excavation was selected for this research.

The actual work in days that has been put into the excavation is based on information found in the excavation reports. Some were precise, others gave indications or dates, in which was not precisely clear on which days the excavation took place. The hypothesis behind this parameter is connected to the estimated work stated in Archis. Is there a connection between estimated workdays and the actual amount of time spent excavating? The connection between estimations before an excavation and actual numbers after an excavation, and excavation company and client might give a background for the research.

### 3. Results of research

#### 3.1. Initial considerations

To find an answer to the main question of this thesis, has the ratification of the Malta Convention in 2007 and the revised Monument Act, which followed the ratification, caused a decrease in the size of excavations between the years 1999 and 2008, the question can be split up in two:

1. Is there a difference in excavation size (area in m<sup>2</sup>) between 1999 and 2008?;
2. Is there a tangible explanation for this difference?

The results of the reports found have been implemented in several tables, found in the appendices. Refer to the following appendices for the complete overview:

- Appendix A: Tables 1 (1999) and 2 (2008), marks the beginning of the research with preliminary data such as location research notification number, but no additional data about excavations.
- Appendix B: Tables 1 (1999) and 2 (2008). All the information has been gathered and filled in. The tables found in Appendix A were used as the base. Researches that were not found were marked. The reasons for this differ per research. Some were simply never executed by anyone, some were executed in different year and mainly some turned out to be different types of research, not excavations.
- Appendix C: Tables 1 (1999) and 2 (2008). Non excavation research. The researches done in the field of archaeology but through other means such as coring.

In chapter 1 the motive for this research is based on the research done by Bazelmans, which states that the size of excavations could quite probably have decreased in the last decades (Bazelmans 2012, 19). This would therefore mean that archaeological excavations are smaller in size (m<sup>2</sup>) in 2008 than in 1999.

#### 3.2. Quality of reports

The KNA has set up quality standards which relate to the production of archaeological reports. These guidelines are not obligatory to use, but are recommended. It is possible for the guidelines to be obligatory if the project outline insists on them, as stated on the KNA website. The guidelines of the KNA came into being in 2000 (SIKB 2007), meaning the reports of 1999 might not comply with the guidelines set. The guidelines give a strict overview of the information required in an archaeological report:

Quality standards subject	Quality requirement(s)
Acquired data (if applicable)	Administrative information research area; Map indicating the boundaries of the research area; Expectation model desk research; Prospected operation (nature and extent); Results exploratory assessing field research; Results exploratory assessing field research – trenching; Literature concerning the research area; Period (in case of excavation); Complex type (in case of excavation); Selection decision (in case of excavation).

Table 1: Protocol 4001. Quality demands of the PvE (www.sikb.nl Kwaliteitsnorm Nederlandse Archeologie 3.2).

The fact that there are quality standards for archaeologists to conform to guidelines set in the KNA means that there will have to be a stable control in retrospect of the materials provided. Working with Archis it has become clear that there is nobody to check for incorrect information.

The following tables show the results of this research in relation to the amount of reports found, the ‘quality’ or completeness of the reports and the date of publishing in comparison to the excavation date.

year of research	Research notification numbers	Amount of reports found	Amount of reports found without Archis research notification number
1999	39 (100%)	20 (51%)	1 (5%)
2008	164 (100%)	109 (66%)	-

Table 2: Amount of research notifications in Archis.

year of research	Amount of reports found	Amount of reports unusable (reports incomplete)	Amount of reports used in the further results of the research
1999	21 (100%)	1 (5%)	20 (95%)
2008	109 (100%)	17 (16%)	92 (84%)

Table 3: Amount of usable reports for this research.

The differences in total excavation reports between 1999 and 2008 is in line with the growth shown in the Erfgoedbalans 2009. Between 1997 and 2006 the amount of reports has multiplied tenfold, from 11 in 1997 to more than 100 in 2006 (Erfgoedbalans 2009, 108) (see figure 2).

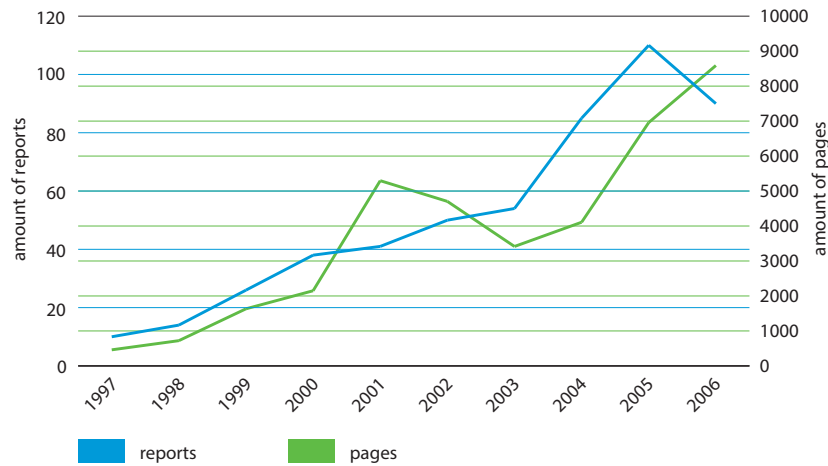


Figure 2: Increase of reports from 1997 to 2006 (Erfgoedbalans 2009, 108).

The amount of reports found in comparison with the amount of research notifications in Archis is only 66% for 2008. This means that either 34% of the research notifications were never executed or wrongly classified or that the report was never published.

With respect to the amount of unusable reports, the figure of 16% of all the reports found in 2008 shows that necessary elements are unavailable for future research. The data for all these excavations was not available and as a result of the differences in excavation reports I ended up with gaps in different places for nearly every excavation (see table 4). Data concerning the area of planning was found through Google in some cases (for instance the Vinex locations), by simply searching municipalities for the area of planning that was referred to in the report.

For the continuation of the research the usable reports have been categorised in their completeness, in regard to the parameters set out at the beginning of this research. This leads to the following table:

year of research	Amount of reports used in the research	Amount of reports with complete information in regard to this research	Amount of reports with incomplete information in regard to this research
1999	20 (100%)	4 (20%)	16 (80%)
2008	92 (100%)	52 (57%)	40 (43%)

Table 4: Amount of reports with complete information.

The reports used in this research show an increase in completeness during the years 1999 and 2008. A reason for this increase might be implementation of the KNA. In the report *Werk in Uitvoering (Work in Progress)* by Van den Dries and Zoetbrood an account is given on the quality of reports in 2006 (Van den Dries and Zoetbrood 2007). They found that only 16% of the reports inspected were

complete, 72% missed crucial information and 10% did not meet the proposed quality as they missed various crucial aspects (Van der Dries and Zoetbrood 2007, 42).

This is reflected in the research done by Aten et al in 2003 on the quality of Programmes of Requirement on the basis of the then recently installed KNA requirements (Aten et al 2003, 3). None of the researched Programmes of Requirements met the requirements set in the KNA (Aten et al 2003, 25). This research was done in the very early stages of the KNA, but indicates that quality requirements take some time to implement. It is not a given fact that quality requirements result automatically in better Programmes of Requirements, or excavation reports.

Besides the lack of data in the reports, the reports themselves were also judged on their quality concerning expiration dates for delivery of the final product. This data is shown in table 5 below.

year of research	Amount of reports used in the research	Amount of reports with publication date within a year of the excavation end	Amount of reports with publication date within two years of the excavation end	Amount of reports with publication date over two years of the excavation end
1999	20 (100%)	9 (45%)	10 (50%)	1 (5%)
2008	92 (100%)	19 (21%)	30 (33%)	43 (46%)

Table 5: Publication dates of reports in regard to the publication time-span.

In this case the defining points are 2 years after the end of the excavation and more than 2 years. Many reports are given to the client in the second year after the excavation. All the reports listed as 2 years in the figure above are reports which do not mention anything about the exact date on which the report was created, but do however mention the year of commencement and the year of completion. I will therefore assume that these reports were completed exactly on time, or as near as makes no matter. The amount of reports which are overdue has increased from 5% in 1999, to 43% in 2008. This is an extremely high amount. If this increase is compared to the completeness of reports as mentioned in table 5, it might give a clue to the reason why more reports are late. The KNA quality standards might have an effect on the quality of the reports, it might also mean that the new standard causes more companies to complete their reports late.

### 3.3. Research explanation

Because of the lack of data in certain areas, as shown before, fragmented data could become quite troublesome. The fragmented data has meant that results



have had to be overlooked to come to a more balanced conclusion. For instance in the case of the area of planning most excavations discussed in the reports show a relatively equal size, but in one case, as shall be seen later, the area of planning was so extremely vast that it would mean a highly deviated graph consisting of many smaller sites and one extremely large one. The reason for this size is easily explained, the area of planning is what is known as a 'Vinex' location. These locations are basically large areas of planning with, in some cases, a thousand or more houses. In the case of Vinex location Leidsche Rijn the municipality of Utrecht indicates 30.000 houses ([www.utrecht.nl](http://www.utrecht.nl)). The immense scale of these projects are few and far between, and most of the smaller excavations which have been researched simply cannot stand their own against these 'monsters of planning'. As with projects like the Betuwe railway-line going through the south of the Netherlands towards Germany, these are a type of one-off project and should be viewed as such. They are therefore incomparable to any other excavation or any other research, whatever the research may be, as these excavations will not be repeated under the same circumstances and by the same means as any that have gone before or are yet to come.

It must simply be understood that these projects tell us next-to-nothing about developments in archaeology because they can only show us data specific to their own area and moment of research. There is the possibility of researching the way archaeology has been handled during the course of the research and that might give us some guidance as to changes brought on through developments in archaeology, but again I must stress that because of the scale of research there is no clear comparison and therefore no solid starting point for judgements.

#### 3.4. Urban vs. Rural - geographical spread and size

The research results themselves have been divided into two categories, namely urban and rural, as this means that geography can be taken into account when analysing excavation size. In my eyes this would give a good idea of the size of excavations and possible importance of a site in general compared to location. The results were interesting as shown in table 6:

year of research	Amount of reports used in the research <i>in real numbers (total percentage)</i>	Amount of urban excavations <i>in real numbers (percentage of total reports used)</i>	Amount rural excavations <i>in real numbers (percentage of total reports used)</i>
1999	20 (100%)	9 (45%)	11 (55%)
2008	92 (100%)	40 (43%)	52 (57%)

Table 6: Amount of urban and rural excavation sites.

The percentage of urban and rural excavations has stayed almost the same. One does however expect to find more urban excavations in general. Sarfatij mentions in his article on Urban Archaeology in the Netherlands (Sarfatij 1997) that the Dutch archaeology has shifted from supra-local responsibility to local responsibility (Sarfatij 1997, 236) and where integration of archaeology in the planning and development process is paramount. Theunissen en Deeben have concluded, in their 2011 research that 20 of the 44 reports which they researched were situated in urban areas (Theunissen and Deeben 2011, 28). Their research reflects the same percentage, about 45% of all the excavations being situated in urban areas. According to De Groot the focus point of urban archaeology preservation is to prevent excavations (De Groot 1998, Bulletin KNOB 1998-3/4, 106), as the current built environment is the best preservation archaeological heritage can have (De Groot 1998, Bulletin KNOB 1998-3/4, 106).

When excavating urban areas the chance of excavating in archaeologically high value places is much greater. Even though these days the expansion of cities means that building projects are more likely to take place outside of historical centres. As most towns and cities have a long history, their locations are usually the source of much research and the archaeological value of sites within cities are often quite high. Only 26% of the known archaeological areas is situated in urban areas (Erfgoedbalans 2009, 77). In 1999 as 2008 more than half of the excavations were in urban areas. As excavation load it would seem that urban excavations are overly present and that this hasn't changed much between 1999 and 2008.

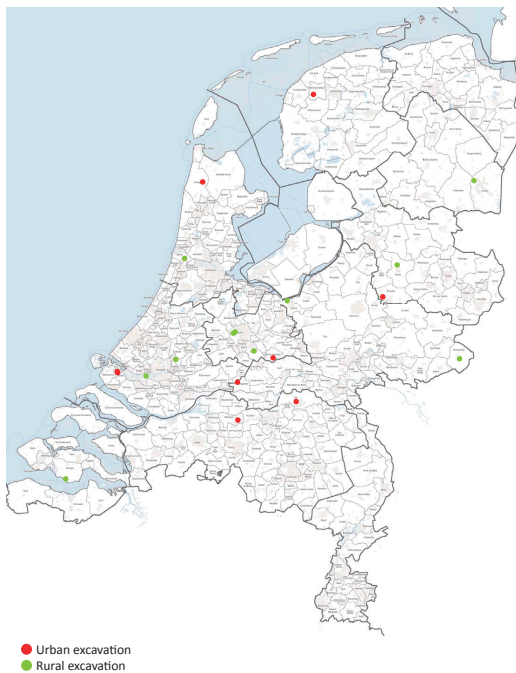


Figure 3: Geographical spread 1999.



Figure 4: Geographical spread 2008.

The geographical spread of the excavations in 1999 and 2008, shown in figures 3 and 4, show a movement towards the east and south of the Netherlands. Especially around Eindhoven a large boom of excavations have taken place in 2008. The reason for this might be the extensive road works and expansion plans of Eindhoven and its surrounding municipality that took place in the first decade of the 2000's.

The spread of urban and rural locations and the size of these excavations have been listed in the tables below.

year of research	Amount of reports used in the research	Amount of reports mentioning excavation size	Amount of reports not mentioning excavation size
1999	20 (100%)	13 (65%)	7 (35%)
2008	92 (100%)	79 (86%)	13 (14%)

Table 7: Amount of reports mentioning excavation size.

Table 7 shows that there has been a large increase in the mentioning of excavation sizes in the reports, but in 14% of the reports found in 2008, this was still not the case. Sometimes a reference was made in regards to the size of excavation, but these merely stated 'same size as building', which does give an idea of excavation size, but not definitive enough to be used for the research.

To determine and explain the decrease or increase in excavation sizes, the excavations have been split up in categories: small excavations (0-500 m<sup>2</sup>), medium excavations (501-1000 m<sup>2</sup>) and large excavations (> 1001 m<sup>2</sup>). Table 8 shows this information, split up for 1999 and 2008:

year of research	Amount of reports mentioning excavation size	Type of excavation	Size of excavation	Amount of excavations
1999	13 (100%)	Small	0 - 500 m <sup>2</sup>	4 (31%)
		Medium	501 - 1000 m <sup>2</sup>	4 (31%)
		Large	≥ 1001 m <sup>2</sup>	5 (38%)
2008	79 (100%)	Small	0 - 500 m <sup>2</sup>	28 (36%)
		Medium	501 - 1000 m <sup>2</sup>	9 (1%)
		Large	≥ 1001 m <sup>2</sup>	42 (53%)

Table 8: Average excavation size per type of excavation.

The table shows a large increase in large excavations from 1999 to 2008. A small increase can also be seen for small excavations, growing from 31% in 1999 to 36% in 2008. The cost of these increases seem to be the medium excavations that in 2008 were only 1% of all excavations. It seems that instead of a decrease, the excavations seem to grow to extremes, while medium excavations seem to miss

the boat.

Size of excavations is different for urban and rural. Whilst rural locations

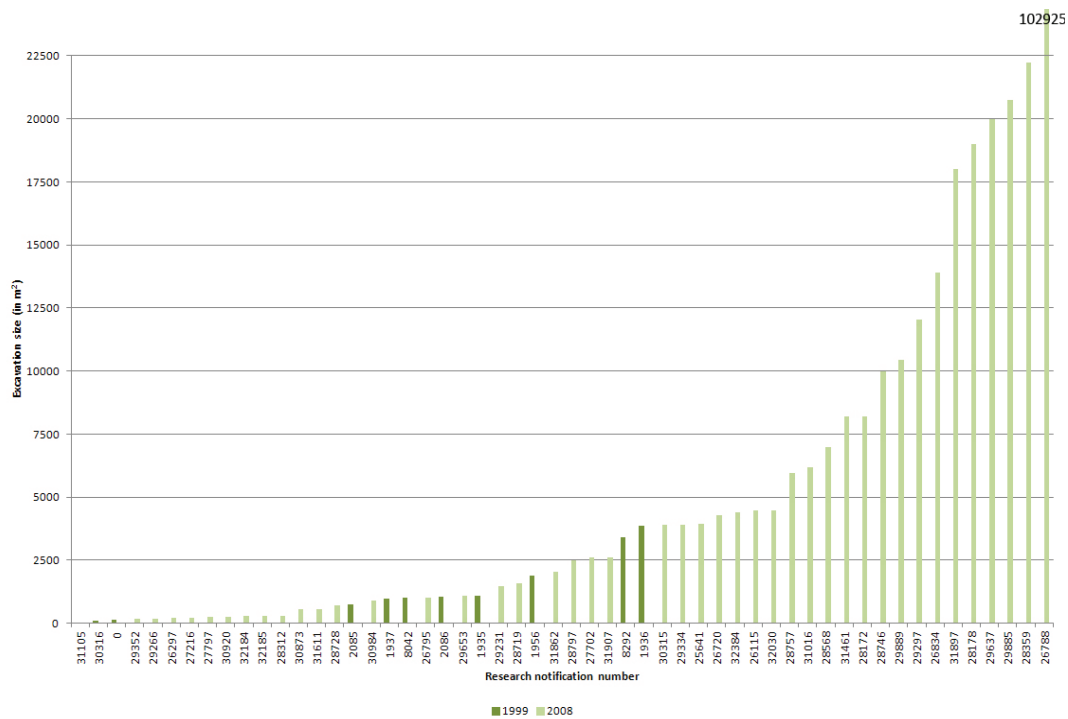


Figure 5: Rural excavation size 1999 - 2008.

have more empty surrounding area, they follow many of the same trends as urban excavation, albeit on a larger scale. First of all rural excavations (fig 5):

As one can see in the graph above 2008 the excavation size of rural excavation was much larger than 1999. To get a clear idea of the increased volume, table 8 shows the average size of the excavations found in the total number of reports. This is measured by totalling the excavation size of each excavation mentioning the size, divided by the total amount of these reports.

year of research	Amount of rural excavation reports	Amount of rural excavation reports mentioning excavation size	Average rural excavation size	Average rural excavation size excluding 2008 report 26788
1999	11 (100%)	10 (91%)	1426 m <sup>2</sup>	1426 m <sup>2</sup>
2008	54 (100%)	46 (85%)	5023 m <sup>2</sup>	2786 m <sup>2</sup>

Table 9: Average rural excavation size.

Table 9 shows that in 1999 the average excavation pit size is 1426 m<sup>2</sup> per excavation (taken from 10 reports). In 2008 it is 5023 m<sup>2</sup> per excavation (taken from 46 reports). This is an increase of 352%. The largest excavation in 2008 measures an

excavation size of 102925 m<sup>2</sup>, which seems to be extreme in comparison to all rural excavations in 2008. I think we can, in this case, speak of a one-off or a fluke in the data. Especially as this particular site is two and a half times larger than the largest rural excavation in 2008 and a staggering 25 times larger than the largest rural excavation in 1999. Still, table 9 shows that even without this excavation, the average size would still be almost twice as large for 2008 compared to 1999.

If we are to divide these excavations into size per excavation, the spread looks like table 10:

year of research	Amount of rural excavations mentioning excavation size	Type of excavation	Size of excavation	Amount of excavations
1999	10 (100%)	Small	0 - 500 m <sup>2</sup>	3 (30%)
		Medium	501 - 1000 m <sup>2</sup>	3 (30%)
		Large	≥ 1001 m <sup>2</sup>	4 (40%)
2008	46 (100%)	Small	0 - 500 m <sup>2</sup>	10 (22%)
		Medium	501 - 1000 m <sup>2</sup>	4 (9%)
		Large	≥ 1001 m <sup>2</sup>	32 (69%)

Table 10: Average rural excavation size per type of excavation.

Table 10 shows that in 1999 the spread of rural excavations is very equal, with a larger portion of large excavations. The same trend we saw in table 12235 before is true for rural excavations for 2008. The majority of rural excavations (69%) are large excavations, but we see a reasonable amount of small excavations (22%).

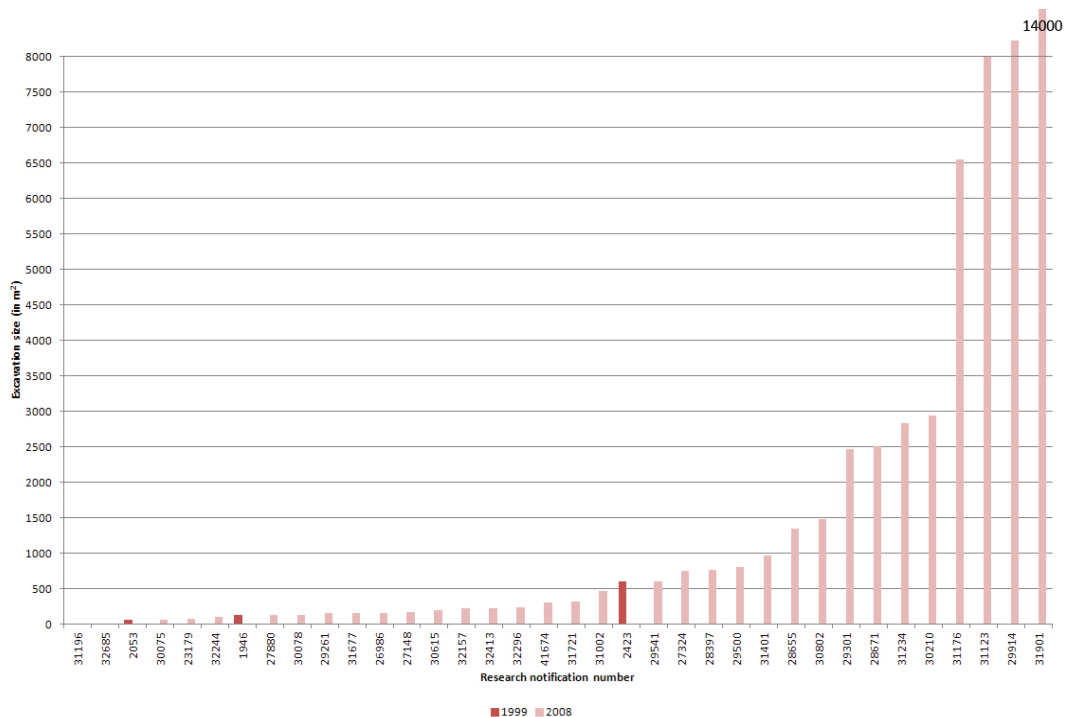


Figure 6: Urban excavation size 1999 - 2008.

When we look at urban excavations, the differences are even larger (fig 6, table 11):

year of research	Amount of urban excavation reports	Amount of urban excavation reports with excavation size	Average urban excavation size
1999	9 (100%)	3 (33%)	264 m <sup>2</sup>
2008	38 (100%)	33 (87%)	1740 m <sup>2</sup>

Table 11: Average urban excavation size.

The excavation pits in 1999 are significantly smaller than in 2008. The largest of these being 23 times bigger than the largest excavation in 1999. This is comparable to the data for rural excavations, where we see the same incline in size with a few extreme cases at the very top end. It is however remarkable that the average urban excavation size in 2008 (1740 m<sup>2</sup>) is still larger than the average rural excavation in 1999 (1426 m<sup>2</sup>).

The split into excavation size types as shown in table 12 is similar to what we have seen for the rural excavations, although with a tendency towards smaller excavations in 2008 than larger:

year of research	Amount of rural excavations mentioning excavation size	Type of excavation	Size of excavation	Amount of excavations
1999	3 (100%)	Small	0 - 500 m <sup>2</sup>	2 (67%)
		Medium	501 - 1000 m <sup>2</sup>	1 (33%)
		Large	≥ 1001 m <sup>2</sup>	0 (0%)
2008	33 (100%)	Small	0 - 500 m <sup>2</sup>	18 (55%)
		Medium	501 - 1000 m <sup>2</sup>	5 (15%)
		Large	≥ 1001 m <sup>2</sup>	10 (30%)

Table 12: Average urban excavation size per type of excavation.

It is remarkable to see that in 2008 30% of all urban excavations are large excavations. This could be explained by the integration of the archaeological process into the development process, where more emphasis is laid on the importance of archaeology during developments. Larger developments and expansion projects could have an influence on the size of urban excavations.

### 3.5. Time in excavations

Bazelmans discusses time as a factor of archaeological development (Bazelmans 2012). However it is not clear that time is related to excavation size, as shown below. There is no clear indicator which shows that the increase in time excavated means

an increase in excavation size. A clear sign that as well as advanced techniques being used in archaeology, desk-based researches and prospection have led to a difference in archaeological excavation strategy. This is the penultimate goal associated with the pre-excavation researches according to the KNA (KNA protocol 4001 PvE (Programme of Requirements)).

As the size of an excavation increases there is no indication that the time spent on the excavation increases linearly (fig 7 and 8).

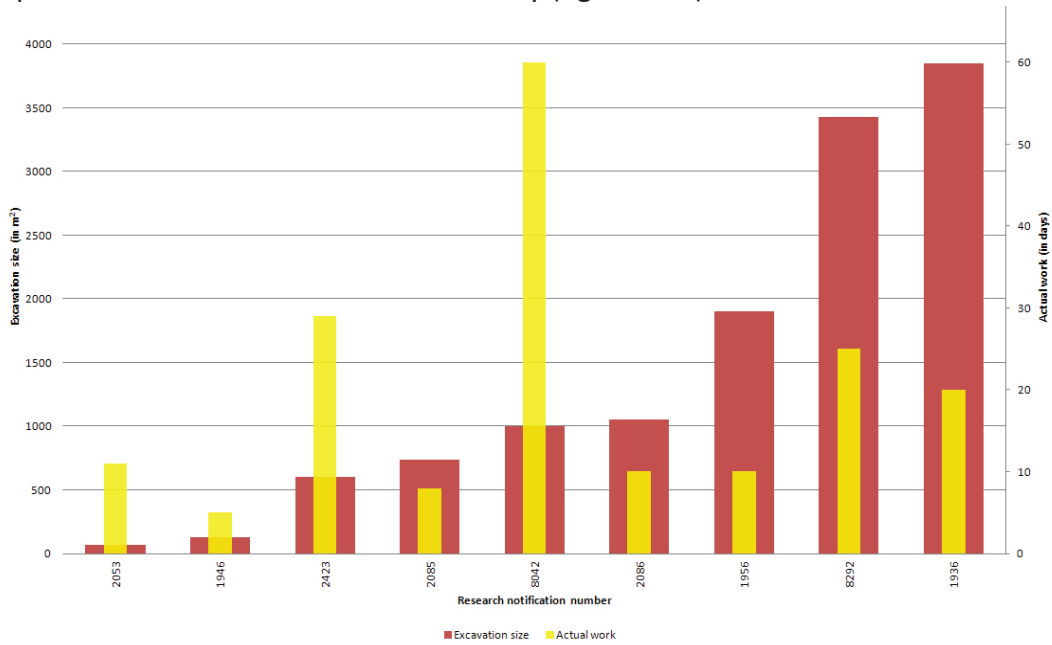


Figure 7: Excavation size vs. actual work 1999.

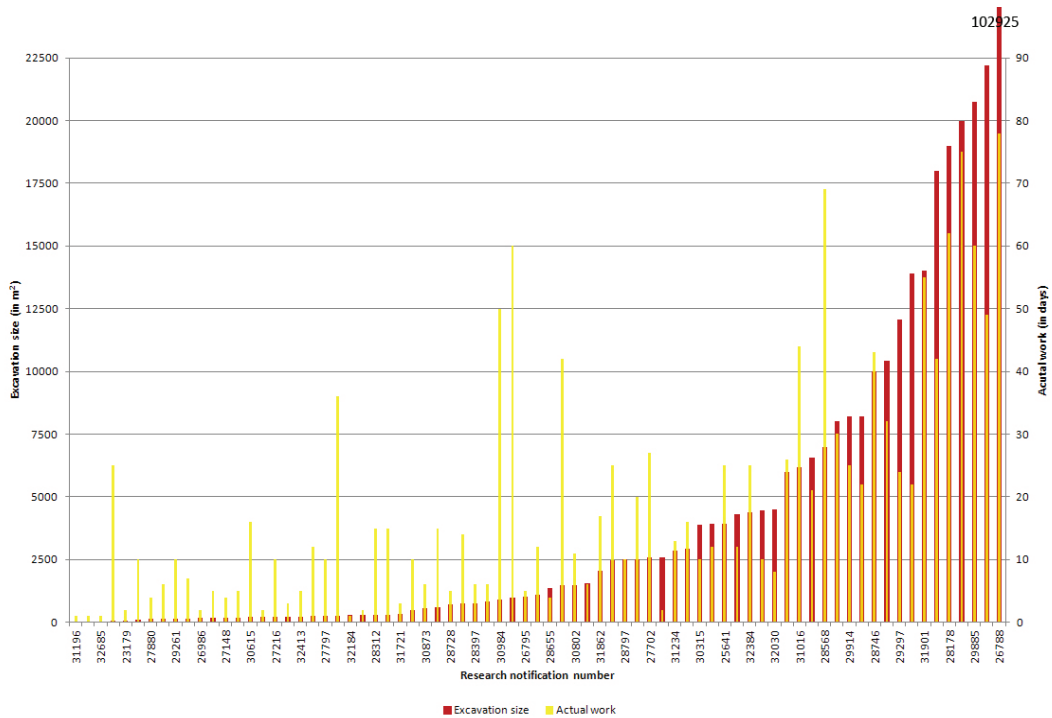


Figure 8: Excavation size vs. actual work 2008.

If anything the time spent on an excavation does not increase by as much as the size of the excavated area. 2008 on the other hand shows us a different picture. In the beginning of the graph the amount of working days is not relative to the amount of work. There is not a clearly visible coherency to be discovered. Towards the larger excavation sizes this changes. The amount of days seem to drop in comparison to the excavation size. The time spent excavating becomes relatively less than with the smaller excavations, confirming Van der Velde's suggestion that there is an increase of machines being used on larger excavations (Van der Velde 2011, 8). On the whole it is possible to conclude one thing larger excavations need more time, but not with a linear growth.

To look at the data more objectively, table 13 shows the average size in comparison to the amount of workdays stated in the reports.

year of research	Amount of reports used	Amount of excavation reports with excavation size and actual workdays	Average workdays per m <sup>2</sup> (measured by the total amount workdays in comparison with the total m <sup>2</sup> excavation size)
1999	20 (100%)	8 (40%)	0.017
2008	92 (100%)	78 (85%)	0.005

Table 13: Average workdays per m<sup>2</sup> excavation size. Note: in 1999 one report showed 2000 actual workdays for their excavation plan of 3851 m<sup>2</sup>. This has been seen as a wrongly entered data, and not been included in this result.

The result seen in this table shows that on average in 1999 0.017 days (which is around 8 minutes per m<sup>2</sup> if we take 8 working hours a day) was spent per m<sup>2</sup> whilst in 2008 this dropped to 0.005 (just over 2 minutes per m<sup>2</sup>).

According to Bazelmans 28% of excavations in 2006, 2007 and 2008 were longer than 20 days (Bazelmans 2012, 15). Tables 14 and 15 show the amount of workdays in 1999 and 2008.

year of research	Amount of reports used	Amount of reports mentioning workdays	Amount of reports not mentioning workdays
1999	20 (100%)	14 (70%)	6 (30%)
2008	92 (100%)	90 (98%)	2 (2%)

Table 14: Amount of reports mentioning workdays.



year of research	Amount of excavations mentioning workdays	Duration of excavation	Amount of excavations
1999	14 (100%)	0 - 10 days	6 (43%)
		11 - 20 days	3 (21%)
		≥ 21 days	5 (36%)
2008	90 (100%)	0 - 10 days	42 (46%)
		11 - 20 days	16 (18%)
		≥ 21 days	32 (36%)

Table 15: Duration of excavations.

The figure shown here is slightly different than Bazelmans figure (28%) for excavations longer than 20 days in 2006, 2007 and 2008. Between 1999 and 2008 there is a shift towards a decrease of longer excavations, whilst the excavation size has increased between those years. The majority of excavations is still below 21 workdays. The table shows that in 1999 a larger percentage of 39% spent more than 20 days on their excavation. A possible explanation for this is, as has been suggested by Van der Velde and Van den Dries and Van der Linde, the use of more machines alongside other technical advances such as digitalisation (Van der Velde 2011, 8; Van den Dries and Van der Linde 2012, 2).

Time spent excavating and time allocated for excavating are interesting concepts, as these could give us ideas as to understanding excavating policies. The results of the comparison between estimated time and actual duration can be found in figures 9 and 10 and table 16:

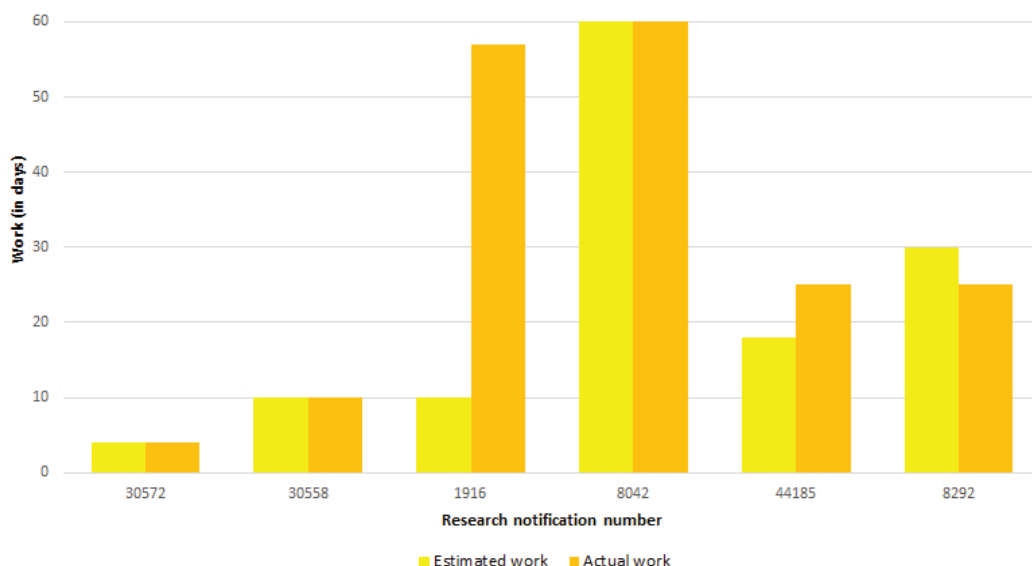


Figure 9: Estimated vs. actual work 1999.

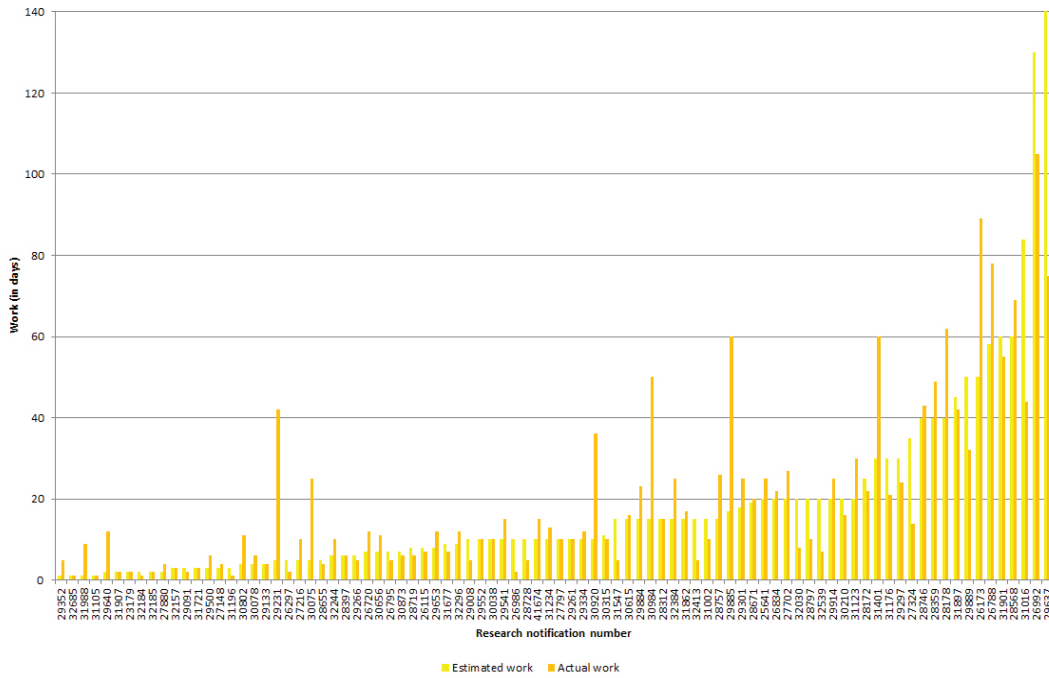


Figure 10: Estimated vs. actual work 2008.

year of research	Amount of reports used	Amount of excavation reports with estimated and actual workdays	Average amount of actual workdays in relation to the estimated amount (+ means more actual workdays than estimated)
1999	20 (100%)	6 (29%)	+8
2008	92 (100%)	88 (96%)	+0.5

Table 16: Average workdays.

The first thing to note is that there are many more estimations in 2008 than there were in 1999. Moreover in 1999 the estimates are very close to the actual time it took for the excavation to be completed. The total overestimation in table 11 for 1999 seems very high, but as it has only been measured over 6 reports which actually carried both data, it is an inaccurate figure. The Wet Monumentenzorg of 1988 (Monument Act) does not mention any obligations surrounding the reporting of time or size to anyone ([wetten.overheid.nl](http://wetten.overheid.nl)). However, Archis does ask for this data, which might be the reason why (afterwards) more accurate estimations have been entered.

In 2008 the figures show a lot of differences, with an overestimated extreme value of 175 days and an underestimated extreme value of 49 days (see figure 12). 63% of the reports which supplied both data had an over- or underestimation of 5 days or less (see table 17). In chapter 3.6 Change of Scene these over- and under

estimations are combined with the origin of the excavating company (government or private).

year of research	Amount of reports used in the research	Amount of reports with an over- or underestimation of 0 – 5 days	Amount of reports with an over- or underestimation of 6-10 days	Amount of reports with an over- or underestimation of 11 and more days
2008	88 (100%)	55 (63%)	16 (18%)	17 (19%)

Table 17: Amount of over- and underestimation.

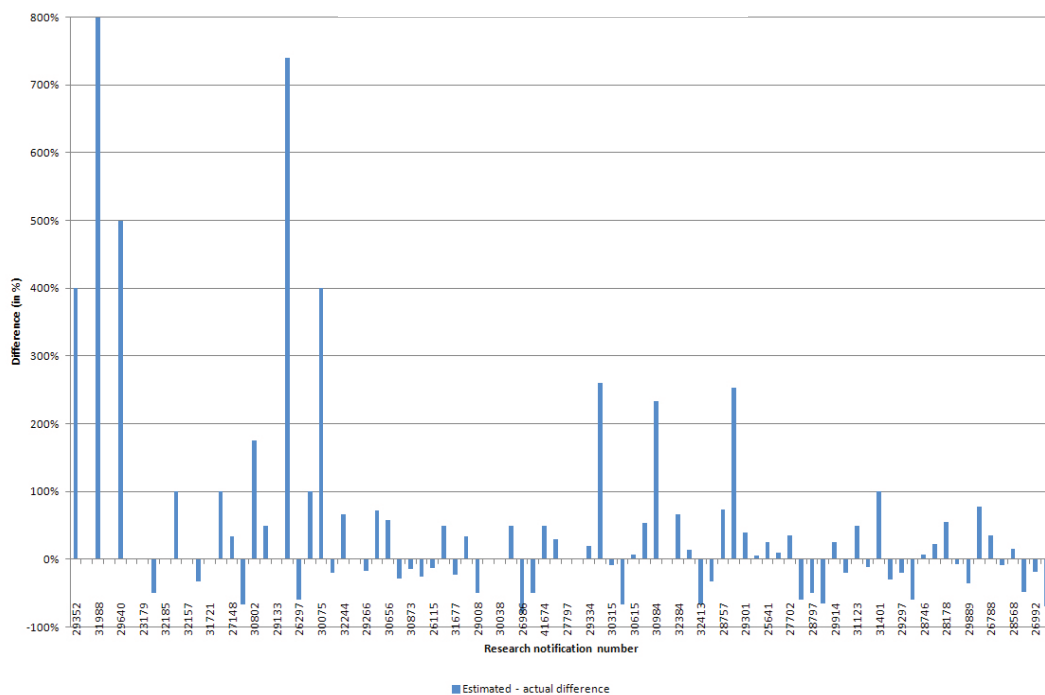


Figure 11: Difference in estimated workdays vs. actual workdays 2008.

Of all reports stating estimations and actual duration, it is positive that almost a third of the archaeological excavators are able to give a reasonable close estimation, though there is still room for improvement. It is not clear why 19% of excavations had an over- or underestimation of 11 days or more, unknown factors could lead to extension of time. But with all the research and time invested before an actual excavation takes place, is it acceptable that 19% of excavations are more than 10 days away from the estimation?

### 3.6. Change of scene

The Malta Convention has created new opportunities for archaeologists, as well as in some ways encroached upon archaeological excavations. Since 2001 the landowner or developer is reliable for archaeological research (Van den Dries et al 2010, 56). A large part of this shift is the rise of the private excavation companies (Erfgoedbalans 2009, 104-105; van den Dries et al 2010, 56). In 2007 almost 90% of

all archaeological research was done by private companies (Erfgoedbalans 2009, 192). This is an enormous shift, seen as in 1999 only 2 private companies had an excavation license. Even then other archaeological research was done by private companies, but the Netherlands has seen a boom of work for private companies from 2001 onwards.

In a random survey done by the RCE the municipalities commissioned only 33% of all Programme of Requirements in 2007, whilst in 2004 this was 47%. The private commissioning of Programme of Requirements rose from 46% in 2004 to 58% in 2007 (Erfgoedbalans 2009, 229).

The following data concerns mainly 2008, as in 1999 private companies barely existed.

The data gathered in this research can give us an idea of the roles of private archaeological companies in combination with the client / commissioner. Tables 18 and 19 show the spread of private and governmental archaeological companies executing the excavations:

year of research	Amount of reports used	Amount of reports indicating the excavator
2008	92 (100%)	92 (100%)

Table 18: Amounts of reports indicating excavator.

year of research	Amount of reports indicating the excavator	Amount of government excavators	Amount of private excavators	Amount of university excavators
2008	92 (100%)	20 (22%)	67 (73%)	5 (5%)

Table 19: Spread of excavators (government, private and university).

The amount of private excavators has increased in the last decades, as discussed in chapter 2. If this is compared to the data of the survey on the Programme of Requirements mentioned in the Erfgoedbalans (Erfgoedbalans 2009, 229) the share of private companies has risen even from 2006 to 2008.

Another interesting point is to see whether private excavation companies have a difference in average excavation size and their timescales. For instance, Bazelmans discusses municipal archaeologists as being under less pressure than private companies when it comes to time excavating (Bazelmans 2012, 15). In tables 20 and 21, the average excavation size is compared to the type of excavator:

year of research	Amount of reports used	Amount of reports mentioning both excavator size and excavator	Amount of reports not mentioning both excavator size and excavator
2008	92 (100%)	79 (86%)	14 (14%)

Table 20: Amounts of reports indicating client.

year of research	Amount of reports indicating the excavator and excavation size	Type of excavator	Amount of excavators	Average excavation size
2008	79 (100%)	Government	14 (18%)	888 m <sup>2</sup>
		Private	60 (76%)	5912 m <sup>2</sup>
		University	5 (6%)	4856 m <sup>2</sup>

Table 21: Average excavation size per type of excavator.

On the whole private companies have to deal with more excavations in absolute numbers and in size. But do they also deal with the largest excavations? Table 22 and 23 shows that on average, private companies deal with a large assortment of excavations, both small and large. Their large excavations are on average the largest even compared to government and universities.

year of research	Amount of reports indicating the excavator and excavation size	Type of excavation	Size of excavation	Amount of excavations
2008	79 (100%)	Small	0 - 500 m <sup>2</sup>	28 (36%)
		Medium	501 - 1000 m <sup>2</sup>	9 (1%)
		Large	≥ 1001 m <sup>2</sup>	42 (53%)

Table 22: Average excavation size per type of excavation.

year of research	Amount of reports indicating the excavator and excavation size	Type of excavator	Amount of excavations	Average excavation size
Small excavations (0 - 500 m <sup>2</sup> )				
2008	28 (100%)	Government	10 (36%)	178 m <sup>2</sup>
		Private	18 (64%)	199 m <sup>2</sup>
		University	0 (0%)	-
Medium excavations (501 - 1000 m <sup>2</sup> )				
2008	9 (100%)	Government	2 (22%)	750 m <sup>2</sup>
		Private	6 (67%)	722 m <sup>2</sup>
		University	1 (11%)	764 m <sup>2</sup>
Large excavations (≤ 1001 m <sup>2</sup> )				
2008	42 (100%)	Government	2 (5%)	4579 m <sup>2</sup>
		Private	36 (86%)	9632 m <sup>2</sup>
		University	4 (9%)	5879 m <sup>2</sup>

Table 23: Average excavation size per type of excavator.

Generally the private companies represent the most excavations, all excavation sizes considered. It is interesting that the government excavates mainly smaller excavations. The average sizes for the small and medium excavations are fairly

close between the different companies, but for the large excavations we see a shift in the average excavation size for private companies. Private companies deal with 86% of all large excavations, and besides that these excavations on average are by far the largest.

A possible explanation could be that private companies, as specialised companies, are more able to have the resources available to excavate larger areas, as most government (municipality) excavators are restricted to their own region and have normally not a large department with archaeologists. The same goes for University excavators, who might have more resources (students) for excavations and undergo larger excavations.

In relation to the average excavation size, it is interesting to see whether a same kind of spread is also true for the amount of days spent excavating. Tables 24, 25 and 26 show these results:

year of research	Amount of reports used	Amount of reports mentioning the excavator and workdays	Amount of reports not indicating excavator or workdays
2008	92 (100%)	90 (98%)	2 (2%)

Table 24: Amounts of reports mentioning excavation and workdays.

year of research	Amount of reports mentioning the excavator and work days	Duration of excavation	Amount of excavations
2008	90 (100%)	0 – 10 days	42 (46%)
		11 – 20 days	16 (18%)
		≥ 21 days	32 (36%)

Table 25: Duration of excavations in 2008.

year of research	Amount of reports indicating the excavator and excavation size	Type of excavator	Amount of excavations
0 - 10 days			
2008	42 (100%)	Government	11 (26%)
		Private	29 (69%)
		University	2 (5%)
11 - 20 days			
2008	16 (100%)	Government	4 (25%)
		Private	11 (69%)
		University	1 (6%)
≥ 21 days			
2008	32 (100%)	Government	5 (16%)
		Private	25 (78%)
		University	2 (6%)

Table 26: Actual working days spread per excavator.

Private companies do the most excavations in all three durations. A connection can be made with the size, which shows us that the representation of Private companies with regards to excavation size can be made with the actual time. For the shorter periods and small and medium excavations the relationship is fairly as expected, the data can not be one-on-one related. However, for the larger excavations it is interesting that private companies do not, at least relatively, take less time compared to what would be expected by the excavation size.

How good are private companies in making estimations? We have seen before that it still is difficult to make a very good estimation, but does that have any relation to the excavator in question? Table 27 gives an overview of the estimated and actual workdays per type of excavator.

year of research	Amount of reports indicating the excavator and workdays	Type of excavator	Amount of reports	Average amount of actual workdays in relation to the estimated amount (+ means more actual workdays than estimated)
2008	90 (100%)	Government	20 (22%)	+2.3
		Private	63 (72%)	-0.1
		University	5 (6%)	+0.6

Table 27: Average over- or underestimation for excavators.

In 2008 it seems that private excavation companies are very good at estimating the workload, and on average are done within the estimate. Governments however underestimate the most, with an average of 2.3 days over time over only 20 excavations. University excavators underestimate a little, but stay close to the original estimate. In this case it does seem that Bazelmans has a good point and government excavators seem to be under less pressure, as their estimations are more often inaccurate and mainly not to the advantage of the financier. Of course in most government cases the financiers will be the own government, what leads to the following possibilities:

- Governmental archaeologists underestimate deliberately to get their project approved;
- Good estimation might not be the priority, as all is financed and excavated within the same source;
- Governmental archaeologists have more interest in good practice and have less time pressure than a private client.
- Governmental archaeologists have less experience with making good estimations.

On all accounts, it is guesswork what the real reason is, but for the future liberalisation a good estimation is a base for future work.

## 4. Discussion

In the last chapter the focus has been on excavations since the Malta Convention (1992) and the ratification in the Netherlands (2007). As explained in chapter 1, it is good to look at the overall discussion regarding archaeological practice since the introduction of the Malta Convention.

The main goal in archaeological practice is no longer mere excavation, or excavation as a central point within archaeological research, but as a last resort in preserving and maintaining archaeological heritage (article 4 of [www.coe.int](http://www.coe.int)). This is also shown in figure 1 in chapter 1, the archaeological process as made up by the KNA.

In total excavations have decreased as a percentage of the total research done in archaeology. In table 28, this shift can be seen for the years 1999 and 2008:

year of research	Total amount of registered research in Archis	Geophysical research	Coring	Prospection research (trenching)	Actual excavations
1999	117 (100%)	1 (1%)	72 (62%)	6 (5%)	38 (32%)
2008	699 (100%)	3 (1%)	459 (66%)	73 (10%)	164 (23%)

Table 28: Amount of archaeological research registered in Archis.

Desk based research results have been excluded from the results for 2008 (236 notifications), as in 1999 it was not common practice to register those. Table 28 shows that mainly Prospection research but in some amount coring have gained ground in 9 years. The total of archaeological research has increased from 117 in 1999 to 699 in 2008, which is almost six times as much. The growth in coring and prospection research has increased at the cost of excavations.

Bazelmans shows that coring has seen an immense increase during since the start of the 2000's (Bazelmans 2012, 14) (figure 12). With preservation as the main priority in mind, coring (the drilling of holes to view the stratigraphy of the ground below the surface) would seem like a good way to go about creating an inventory of archaeology in the Netherlands. It is relatively cheap compared to a full blown excavation and with coring you immediately have a stratigraphy of layers. The difficulty with this strategy is, as Van Der Velde shows, that coring can create an incomplete archaeological database from which future archaeological studies are performed (Van der Velde 2011). This does not mean that it can not be used for future reference. It could quite possibly be the best means available to archaeologists right now, that can be adopted into paleogeographical maps to ascertain areas of value. Especially compared to geological movement in the subsoil.



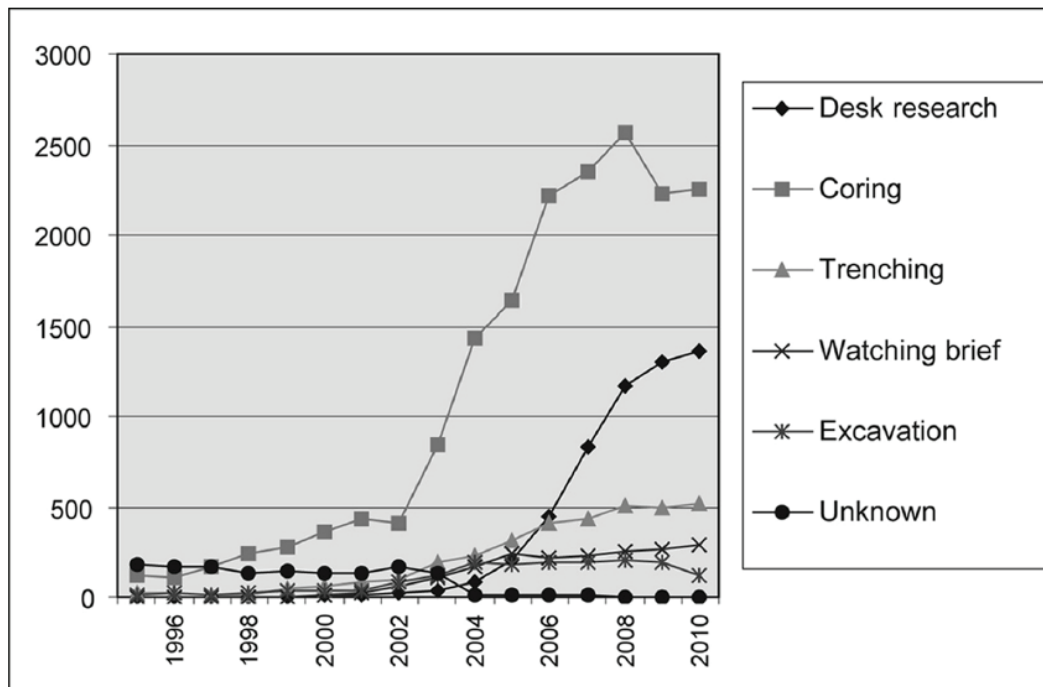


Figure 2: The growth of archaeological research in the Netherlands up to the first 9 months of 2009 (Bazelmans 2012, 13).

When only looking at excavation size as a reference for archaeological development the excavation area (in m<sup>2</sup>) on average has increased significantly. The sites which were being excavated in 2008 were, as tables 8 and 9 in chapter 3 show, about 3.5 times larger for rural locations to 6.6 times larger for the urban locations than the excavations in 1999. This is a bit like comparing apples and oranges, as these are different sites in different areas. We also must consider that excavations which have a smaller surface area might have been more thoroughly excavated in depth. But the increase in size found in this research between 1999 and 2008 suggests that this is not a mere fluke in data or can be ascribed to one or two major excavations that give a distorted figure of size of excavation area.

It is interesting to see that the average excavation size has increased between 1999 and 2008. One would expect that within urbanised areas there would be little increase as the size of excavations are in those cases usually defined by surrounding buildings. According to Theunissen and Deeben areas are only slightly larger in rural settings, although the average excavation size is higher (Theunissen and Deeben 2011, 28).

Even in urban areas the excavation size has increased substantially. In 2008 urban excavations were 6.6 times larger than in 1999. With the same increase seen over all the excavations there must be a factor creating these larger excavations. The reason for this could be the intensive development of urban areas, in combination with large extensive developments in some rural areas. As Malta

states the possibilities for localised preservation or preservation in situ should always have the highest priority, but if this is not possible then the only option becomes to excavate everything. When and if desk-based research and coring indicate possible archaeological heritage in an area, the discussion on preserving in-situ or excavation starts. In rural areas this means excavating with machines to create a good overview of the original expectancy compared to reality. But in urban areas this could quite well mean that the entire site is possibly important and must, in some cases literally, be dusted with a fossil brush. In this case, desk based research and coring can lead to larger excavation areas, when choosing to excavate. The increase is therefore a direct result of enforced laws.

The production and publication of excavation reports is important for the knowledge of archaeological heritage. If one is to consider knowledge production as the epitome of archaeological data, then seemingly larger excavations should benefit this. Even though Theunissen and Deeben have shown in their research that the amount of knowledge production has decreased slightly (Theunissen and Deeben 2011, 33), it should concern archaeologists whether this means that the increase in excavation size is directly related to loss in archaeological data. Knowledge production in general, or the acquisition of new data for the benefit of historical studies, would likely increase more as a result of larger excavations. This does not seem to be the case however, and we must therefore conclude that the general increase in excavation size has nothing to do with an increase in knowledge acquisition.

Could it mean that an increase in excavation size through technological means has increased excavation size on the surface, but that in depth research has yielded less information in 2008 as opposed to 1999? This is a difficult matter, as archaeological values dictate a large proportion of excavated data. This could mean that although larger excavations are becoming more commonplace, the data which is being uncovered is less likely being used in studies concerning contemporary archaeological practices. The amount of data being produced is discussed by Bazelmans (Bazelmans 2012, 10), and shows a direct relation between the amount of “grey literature” (Bazelmans 2012, 18) being produced and the revised monument act. Related to the amount of grey matter being produced, archaeology is entrenching itself in an ever growing mountain of data. Which will quite possibly never be used in the future.

This idea is reflected by research shown in the Erfgoedbalans 2009. Between 1997 and 2006, the amount of excavation reports has risen tenfold in this time, but the amount of pages produced in total has declined (Erfgoedbalans 2009, 108). In general, since 2002 the average amount of pages for all types of archaeological research per report has declined (Erfgoedbalans 2009, 108). In the Erfgoedbalans

no reason or hypothesis is given to explain this decrease, but if we look at the previous paragraph, the answer might have been given already.

The same decline in report size is true for an other form of archaeological research, namely theses, synthesising reports and extensive reports of large infrastructural excavations (Erfgoedbalans 2009, 111). It seems that this type of scientific research has even declined in the years 1997 – 2006. Again, no solid or satisfactory explanation can be given for this decline, other than a shift in public interest in more broad knowledge of archaeology. Next to traditional themes as prehistory and Roman history, the Middle Ages and newer areas have gotten more interest, next to the general discussion about archaeological heritage management (Erfgoedbalans 2009, 111).

There is something which we must not overlook. Because of Malta possible archaeological heritage which is still to be excavated is judged before excavating, which leads to expectations. The Malta Convention (1992) and revised Monument Act (2007) has lead to local responsibility of archaeological heritage expectation. Municipalities do not always have enough sufficient funds to research everything, and since the revised Monument Act (2007) are free to make selections in exemption rules for excavations (van den Dries and van Vuuren 2012, 33 - 34). These exemption rules are based on prospection maps and on themes within each municipality. Municipalities seem to choose mostly later themes, from the Roman period towards now (van den Dries and van Vuuren 2012, 34). This could lead to a loss of earlier archaeological heritage. As Van den Dries and Van Vuuren mention, the basis on which archaeological research is chosen, is mainly commercial or popularity within the community (van den Dries and van Vuuren 2012, 35-36), not based on pure archaeological reasons.

It seems that in the last years the shift towards 'popular archaeology' as seen in the Erfgoedbalans and mentioned by Van den Dries and Van Vuuren, has taken on a new role, stimulated by the local municipalities. The Malta Convention encourages the promotion of public awareness (article 9, [www.coe.int](http://www.coe.int)). It would however, be a poor effect if the encouraging of public awareness would lead to superficial excavations and to loss of archaeology and less knowledge production.

## 5. Conclusion

Since the Malta Convention (1992) was signed by the Netherlands and was ratified in 2007, leading to the revised Monument Act (2007) in the Netherlands, the Dutch archaeological practice has seen a shift in process and practice. This research is based on an article by Bazelmans, where he states that since the 1970's large scale excavations have shrunk (Bazelmans 2012, 19). This statement is interesting compared to the increase of excavations as a whole (Van den Dries 2011; Van den Dries and van der Linde 2012).

This has led to the main question of this thesis: has the ratification of the Malta Convention in 2007 and the revised Monument Act, which followed the ratification, caused a decrease in the size of excavations between 1999 and 2008.

To gather information for research excavation reports found in Archis were used from the years 1999 and 2008. Those years both signify changes in regulations regarding archaeological practice, as explained in chapter 1.

To answer the main question, two separate elements were looked at:

1. Is there a difference in excavation size (area in m<sup>2</sup>) between 1999 and 2008?;
2. Is there a tangible explanation for this difference?

A first conclusion for the questions is found in chapter 3, table 8. Of all reports mentioning excavation size, we can see that in 1999 there is a more even split between small (0-500 m<sup>2</sup>), medium (501-1000 m<sup>2</sup>) and large (> 1001 m<sup>2</sup>) excavations, with 38% of excavations larger than 1000 m<sup>2</sup>. For 2008 this split is distinctly different: small excavations have a share of 36%, while large excavations have a share of 53%. Medium excavations seem to have shrunk to a mere 9%. This split is reflected when looking at urban and rural excavations separately. In 2008 we see a small decrease of urban excavations, from 45% in 1999 to 43% in 2008.

On average the size of rural and urban excavations has risen dramatically from 1999 to 2008. Tables 9 and 11 in chapter 3 show that for rural excavations the average excavation size has risen from 1426 m<sup>2</sup> in 1999 to 5023 m<sup>2</sup> in 2008. For urban excavations the average amount increases from 264 m<sup>2</sup> in 1999 to 1740 m<sup>2</sup> in 2008.

This is interesting as only 26% of areas in the Netherlands is placed in urban locations (Erfgoedbalans 2009, 77). Like for like, urban excavations have a relatively large place in the total amount of archaeological excavations. As the data in chapter 3 shows, the amount of excavations in urban areas for this study is roughly 45% of the total amount of excavations. A much higher value indicating that the concept of Malta's *in situ* policy is being actively administered.

Research by Van den Dries and Van der Linde showed that archaeological

field work has decreased (Van den Dries and Van der Linde 2012). This is reflected in table 28 in chapter 4 for 1999 and 2008, where we can see that excavations as the total percentage of archaeological research has decreased from 32% in 1999 to 23% in 2008. Excavation of a site is only the last means for preservation of archaeological heritage. Once the decision to excavate is left, after desk-based research and coring or trenching has been carried out, this results in larger excavations.

Does this mean that when excavations on average become larger, more time is spent on archaeology? Technology and digitalisation could mean that excavations can be more efficient. Table 15 in chapter 3 shows that the spread in workdays in 1999 is more or less the same as in 2008. Most excavations take less than 10 days, for 1999 this was 43% and for 2008 this was 46%. For excavations with a duration longer than 21 workdays, this percentage is 36% for both 1999 and 2008.

The relation between size and duration is dubious. Even with new technology and efficiency, it seems to be a highly non correlating dataset. Size of excavations increase dramatically in 2008, while the time spent on these excavations does not increase at all. As table 13 in chapter 3 shows, when we compare the average excavation size directly with the average amount of workdays, the difference becomes tangible. In 1999 archaeologists took around 8 minutes per m<sup>2</sup> to excavate, while in 2008 this had dropped to just 2 minutes on average per m<sup>2</sup>. The reason for this relation is not explained in this research, but there are some factors that might have had an influence on this.

In archaeology we are seeing a new practice at the end of the last millennium. Where before the right to excavate was solely granted to governments and universities, the Malta Convention ensured the start of the liberalisation of the archaeological excavation market (Willems 2007, 47). As seen in chapter 3 table 19 the amount of excavations done in 2008 by private companies is 73%, whilst in 1999 there were none, with the exception of RAAP and ADC, which were privately held companies that liaised with universities and government to be able to excavate.

The revised Monument Act (2007) made municipalities responsible for the archaeological heritage in the municipality. In the years 1995 – 2007 more municipal archaeologists were hired, while other municipalities opted for shared regional archaeologists (Erfgoedbalans 2009, p. 172). Instead of national or large regional archaeological policy, municipalities now have their own responsibility for the archaeological heritage and the archaeological values of areas.

The rise of the private company and the localization of archaeology within the municipalities, could lead to a natural shift, where large excavations are excavated by companies that are able to deal with large excavations. Table 21 in chapter 3 shows that the average excavation size for government excavators is

small at 888 m<sup>2</sup>, while for private companies the average lies at 5912 m<sup>2</sup>. Table 23 in chapter 3 shows that only 5% of large excavations (> 1001 m<sup>2</sup>) were excavated by government, compared to 86% done by private companies.

Besides excavation sizes being different, Bazelmans discusses that government excavators are under less pressure compared to private companies (Bazelmans 2012, 15). This is reflected by the time spent excavating, shown in tables 25 and 26 in chapter 3. Even though there are larger excavations, in comparison private companies excavate quicker than governments. With an average excavation size of 888 m<sup>2</sup>, and with only 2 large excavations done by governments, it is interesting to see that 5 excavations taking longer than 20 days are done by government excavators (16% of all excavations taking longer than 20 days). This in stark contrast to private companies, where the average excavation size is 5912 m<sup>2</sup>, and the spread between days is more balanced, with the largest part of the longer excavations (78% of all excavations taking longer than 20 days is done by private companies).

Government excavators also seem to have more difficulty estimating the time necessary for an excavation. Table 27 in chapter 3 shows that private companies seem to be more precise, whether by experience or by economic pressure, in estimating the workload in comparison to the actual amount of days excavating. Government excavators seem to underestimate the work that needs to be done, either by inexperience in the matter, or by less time and financial pressures.

As the municipalities have more responsibilities in the archaeology policies, we see a shift in archaeological themes. Municipalities now have an influence on what is and what isn't excavated (van den Dries and van Vuuren 2012, 33 - 34). This can result in popular archaeology, where themes are excavated that have a larger popularity within the community (van den Dries and van Vuuren 2012, 35-36). It is important to have community support and knowledge delegation, but that should not cause parts of archaeological heritage to be forgotten or destroyed.

With the increase of the excavation sizes, we see a decrease in knowledge production (Theunissen and Deeben 2011, 33), for the quantity of pages in archaeological reports has decreased over the last years (Erfgoedbalans 2009, 108). Not only the archaeological reports seem to have shrunk in pages, the amount of scientific research done into archaeology has decreased (Erfgoedbalans 2009, 111). It looks as if the emphasis is laid more on 'ticking the necessary boxes' for the KNA, than in actual in depth research.

This is reflected in Archis and excavation reports that were used in this thesis. The results of this research have not been easy to gather. As discussed in chapter 1 and 2, the base of this research was the database of Archis, where the research notification numbers were used for the collection of reports. Several sources, such as Wiemer and the Erfgoedinspectie, indicated that there are large

differences in the quality and availability of the excavation reports (Wiemer 2002, 103; Erfgoedinspectie 2010). This is something that I have witnessed first-hand. Firstly there are difficulties concerning the access to these reports. They are made available through different means, via Archis, via the library of the RCE in Amersfoort or via DANS. Not all reports were found by looking for the title and research notification number as shown in Archis. Some reports are available at the library of the RCE or at DANS but under different names. The problem hereby is that reports could be overlooked because of their labelling. And as discussed before, this is a direct result of the way in which reports are published via two different, yet related, ways (DANS and Archis).

Another difficulty is that some excavation reports that are reported in Archis, are not added to the system itself. Because of this it became very difficult to adhere to what I believed to be a good starting point for my research, Archis. Of all registered reports in 2008, only 66% were available. For 1999 this is only 51%. Of these available reports, 95% were usable for 1999, and 84% for 2008.

Thirdly I would like to discuss the differences in data. As most companies will have developed a different way of dealing with the data they have excavated, the reports lack an overall standard of form. Different reports often show the exact same data emanating from a standard procedure of dealing with excavation reports within one company, resulting in a very standardised collection of reports. This is not a problem per se, but it becomes one when different companies work with different standards. This should not be a problem considering the fact that these companies work under the KNA. The anomalies are not strictly speaking in conflict with these guidelines, but they are applied differently. This has caused some holes in the gathered data.

All in all I think that both Archis and the KNA have created a framework that could improve the quality of archaeology, not only for the present, but mostly for the future. Archis is set up as a centralised system, with underlying guidelines, but is still not enforced enough to create the reliable framework on which we should base our archaeological data in the future.

This research has suffered from insufficient and incomplete data in the Archis database and in the excavation reports themselves, which has caused that some information might not be complete. This research is not conclusive, but indicates that there is much more research to be done to see whether the Malta Convention (1992) and the ratification of the Malta Convention (2007) will ensure archaeological practice, knowledge and preservation for the future.

To conclude, has the ratification of the Malta Convention in 2007 and the revised Monument Act, which followed the ratification, caused a decrease in the size of excavations? No, excavation sizes have not decreased, but have increased

instead. Does this have anything to do with the ratification of Malta Convention? Yes, it seems that the framework of rules set out in the Malta Convention has ensured that we now excavate more and larger areas on average. Is this a good development? It is not possible to see what the archaeological practice would have looked like without the Malta Convention, but there are some positives: The attention to archaeology and the integration of archaeological practice in the development process. Whether this is the best way to go, only time can tell.



## **Abstract**

In 1992 the European Convention on the Protection of the Archaeological Heritage, also known as the Malta Convention, was held. The treaty was signed by The Netherlands the same day. However, it was not ratified until 2007, and implemented in a new set of laws known as the revised Monument Act of 2007. This act ensured that the principles behind Malta, mainly aimed at preservation of archaeology for the future, were now legal boundaries through which archaeology was practiced.

The developments in archaeology had started before the Convention 1992, at least for The Netherlands. And at the point of ratification in 2007, a lot of changes in regards to archaeological process had taken place. Archis, the database for registering all archaeological research, started in the beginning of the 90's, followed by quality regulations for reports set up by the KNA at the turn of the millenium, and since the last decade a system of regulated private companies has been working alongside the previous monopolists: the government and the universities. These changes have caused archaeologists to approach excavations in a different way. But the question of how these changes have impacted archaeology are still being answered.

It is believed that the amount of excavations has risen in the last decades, but that the size in excavations has decreased. Trying to touch on the subject of excavation size, this thesis is aimed at answering the question: Has the ratification of the Malta Convention, in 2007, and the revised monument act, which followed the ratification, caused a decrease in the size of excavations between the years 1999 and 2008?

This thesis is based on excavation reports from the years 1999 and 2008. These reports have all necessary data pertaining to the size of excavations. The two years also give a good overview of the difference between the data in reports before and after the ratification of the Malta Convention.

The data shows that there is an increase in excavation size between 1999 and 2008. In both urban and rural settings. Where the main discussion was leaning towards the impression that large-scale excavations are a thing of the past, nothing seems less likely. It is however very interesting to see the time needed to excavate these larger areas. And the assumption that excavations are becoming smaller seems to be more related to the difference in temporal factors, than in actual square meters.

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## Appendices

### Appendix A: Overview of initial research registered in Archis

Table 1 - research excavations in 1999

Municipality	Research notification number	Toponym	Executed by	Project manager	Province
's Gravenhage	48607	Stekelenburg	Afdeling archeologie	Ploegaert	Noord Holland
's Gravenhage	2352	Driehoekjes	Afdeling archeologie	Van Veen	Noord Holland
Aa en Hunze	1980	Bosweg	Archaeological Research and Consultancy	Schoneveld	Drenthe
Amersfoort	26671	Amicitia	Sectie archeologie gemeente Amersfoort	d'Hollosy	Noord Holland
Amersfoort	26695	Utrechtsestraat	Sectie archeologie gemeente Amersfoort	d'Hollosy	Noord Holland
Amsterdam	1902	Nieuwezijdsolk	Bureau monumentenzorg en archeologie	Veerkamp	Noord Holland
Bergen op Zoom	6346		Gemeente Bergen op Zoom	Vermunt	Noord Brabant
Borsele	8292	Steendamweg	ADC archeoprojecten	Sier	Zeeland
Brielle	30572	Kaatsbaan 7 en 9	BOOR	van Trierum	Zuid Holland
Brielle	30558	Clarissenklooster	BOOR	Jacobs	Zuid Holland
Delft	4678	MD4 25	IAAC (UvA)	nvf	Zuid Holland
Deventer	31556	Papenstraat; Muggplein	Archeologie Deventer RMW-VHMZ	Archeologie Deventer RMW-VHMZ	Overijssel
Eindhoven	1910	Smallenhaven / Catharinaplein	Afdeling archeologie gemeente Eindhoven	Arts	Noord Brabant
Emmen	1916	Noord Bergeres	Archaeological Research and Consultancy	Kooi	Drenthe
Emmen	1919	Noord Bergeres	onbekend	Kooi	Drenthe
Franekeradeel	1981	Piins-oost	Instituut voor pre- en protohistorie A.E. Van Giffen	Bazelmans	Friesland
Houten	1937	Hoogdijkterrein 89	ADC archeoprojecten	Hazenberg	Utrecht
Katwijk	1931	Gemeentehuis	ADC archeoprojecten	Hazenberg	Zuid Holland
Leiden	1932	Rapenburg 70 – 74	Bureau monumentenzorg en archeologie gemeente Leiden	Dolmans	Zuid Holland
Leudal	25134	Sint Martinuskerk	Stichting studiegroep Lendal e.o.	Stichting studiegroep Leudal e.o.	Limburg
Lingewaal	1946	Molenstraat	onbekend	Kleij	Gelderland
Maastricht	18181	Kesselskade 51	Gemeente Maastricht	Hulst	Limburg
Menameradiel	44185	De Alde Witte	BAAC	Spitzers	Friesland
Menameradiel	1917	Schatzenburg	Archaeological Research and Consultancy	Kooi	Friesland
Nijkerk	2086	ROL project 1, 2, 3	ADC archeoprojecten	Bulten	Gelderland
Oosterhout	38307	Steehoven	Gemeente Oosterhout	Koopmanschap	Noord Brabant
Oss	2423	Arendsvlucht	BAAC	van Genabeek	Noord Brabant
Raalte	8042	Westenerik	ADC archeoprojecten	Bulten	Overijssel
Rotterdam	30316	Polder oud Pernis	BOOR	Jacobs	Zuid Holland
Schagen	2053	Markt	ADC archeoprojecten	Dijkstra	Noord Holland
Utrecht	1936	Hogewoerd	ADC archeoprojecten	Graafstal	Utrecht
Utrecht	2085	t Zand / Bloemenvelling	ROB	Polak	Utrecht
Velsen	1935	Velserbroek	onbekend	van der Heijden	Noord Holland
Waalwijk	2422	Grote straat 371 – 373	onbekend	van Genabeek	Noord Brabant
Wijchen	33761	...	Bureau archeologie gemeente Nijmegen	van Enckevoort	Gelderland
Wijk bij Duurstede	8099	Singel; Zandweg	ADC archeoprojecten	van der Heijden	Utrecht
Wijk bij Duurstede	2316	Singel / Zandweg	ADC archeoprojecten	van der Heijden	Utrecht
Winterswijk	1956	de Eelinkes	onbekend	van de Velde	Gelderland

## Appendix A: Overview of initial research registered in Archis

Table 2 - research excavations in 2008

Municipality	Research notification number	Toponym	Executed by	Project manager	Province
's Hertogenbosch	29352	Empelsedijk	BAAC	Mooren	Noord Brabant
's Hertogenbosch	31401	...	BAAC	Van Genabeek	Noord Brabant
's Hertogenbosch	32296	Dode Nieuwstraat Minderbroederklooster	ADC archeoprojecten	Alma	Noord Brabant
Aalburg	30873	Eethen (NB) de hoek	ADC archeoprojecten	Torremans	Noord Brabant
Albrandswaard	33674	Valkensteinsche blok DO fase 2	Grontmij	van der Roest	Zuid Holland
Albrandswaard	31862	Valkensteinsche blok DO fase 1	Grontmij	van der Roest	Zuid Holland
Alkmaar	29261	Laat 233-237	Afdeling monumentenzorg Alkmaar	Bitter	Noord Holland
Alphen-Chaam	31547	Gaiderseweg en berkenakker	Becker en van de Graaf	Hoven	Noord Brabant
Amsterdam	30038	Oudeschans 5-11	Bureau monumenten en archeologie Amsterdam	Gawronski	Noord Holland
Amsterdam	30615	Oudezijds armsteeg	Bureau monumenten en archeologie Amsterdam	Gawronski	Noord Holland
Apeldoorn	29475	Wieselse weg	Archeologisch centrum universiteit Leiden	Fontein	Gelderland
Arnhem	25641	Schuytgraaf vindplaats 7	ADC archeoprojecten	Roessingh	Gelderland
Arnhem	32244	Koningstraat/Klarestraat	Gemeente Arnhem	Defilet	Gelderland
Beek	26033	Horsterweg	RAAP	Tichelman	Limburg
Bergambacht	29125	Dijklaan zuid	RAAP	Jansen	Zuid Holland
Bergen op Zoom	26813	Moeregebstraat 18	Gemeente Bergen op Zoom	Vermunt	Noord Brabant
Best	26907	Zessprong	Becker en van de Graaf	Van de Graaf	Noord Brabant
Beuningen	29653	Kloosterstraat/Van Heemstraweg	RAAP	Verhulst	Gelderland
Bladel	31461	Kleine Beerze	RAAP	RAAP	Noord Brabant
Bloemendaal	27216	...	Grontmij	van der Roest	Noord Holland
Boekel	31906	Bergstraat	Becker en van de Graaf	Hoven	Noord Brabant
Borger-Odoorn	30753	Daalkampen, Poolse bevrijderslaan	ADC archeoprojecten	van de Meij	Drenthe
Borne	28719	De veldkamp-schild es	RAAP	Scholte Lubberink	Overijssel
Boxtel	26720	In goede aarde	Archeologisch centrum vrije universiteit	van Renswoude	Noord Brabant
Boxtel	29231	Schiindelseweg	ADC archeoprojecten	Torremans	Noord Brabant
Boxtel	29367	In goede aarde	Archeologisch centrum vrije universiteit	van Renswoude	Noord Brabant
Breda	32012	Begijnhof huis 75	Gemeente Breda	Peters	Noord Brabant
Breda	31721	Breda hoge mosten	Bureau interdisciplinaire landschapsanalyse	Bureau interdisciplinaire landschapsanalyse	Noord Brabant
Breda	32685	Kasteelplein	Gemeente Breda	Peters	Noord Brabant
Brielle	26751	Begijnhofkapel	RAAP	Jordanov	Zuid Holland
Coevorden	29117	Kasteel	Archaeological research and consultancy	Tuinstra	Drenthe
Coevorden	31260	Markt	Archeodienst Gelderland BV	van de Graaf	Drenthe
Coevorden	31579	Oostelijke binnenhaven: kruithuis	Grontmij	Helman	Drenthe
Delft	30021	Voordijkshoornsepolder, Laan van Groenewegen	Gemeente Delft	Gemeente Delft	Zuid Holland
Dinkelland	31043	Oostenveld	RAAP	Scholte Lubberink	Overijssel
Doetinchem	27880	Burgemeester Nispenstraat	RAAP	Schubbink	Gelderland
Doetinchem	31136	Simonsplein	Becker en van de Graaf	Van de Graaf	Gelderland
Doetinchem	31901	Veemarkt	RAAP	Verhelst	Gelderland
Dordrecht	29541	...	Gemeente Dordrecht	Dorst	Zuid Holland
Eersel	30315	Vessum Flinkert	ADC archeoprojecten	Ridder	Noord Brabant
Eijsden-Margraten	26239	Duijsterstraat	RAAP	RAAP	Limburg
Eijsden-Margraten	32429	Brensterhof	ADC archeoprojecten	Torremans	Limburg
Eindhoven	26927	Ten Hage, Mariahage	Afdeling archeologie gemeente Eindhoven	Arts	Noord Brabant
Eindhoven	26986	Hoogstraat 421	Afdeling archeologie gemeente Eindhoven	Arts	Noord Brabant
Eindhoven	26992	Gagelbosch	Afdeling archeologie gemeente Eindhoven	Arts	Noord Brabant
Eindhoven	30670	Kosmoslaan	Afdeling archeologie gemeente Eindhoven	Arts	Noord Brabant
Enkhuizen	23179	Breedstraat 52	Synthegra B.V.	Van Klaveren	Noord Holland
Enkhuizen	32413	...	Hollandia Cultuurhistorisch Onderzoek en Archeologie	van den Berg	Noord Holland
Geldermalsen	28397	Beest - Jeugdlaan	Archeologisch centrum Vrije universiteit	van Renswoude	Gelderland
Geldermalsen	29459	Panweg	Archeomedia / Amicon	de Koning	Gelderland
Geldrop - Mierlo	27238	...	Grontmij	Geraerds	Noord Brabant
Geldrop - Mierlo	27619	Cocody	BAAC	Mooren	Noord Brabant
Geldrop - Mierlo	31897	Luchen	Archeologisch onderzoek Leiden b.v.	Goossens	Noord Brabant
Gemert - Bakel	30795	Neerakker	Archaeological research and consultancy	Ulfkes	Noord Brabant
Gemert - Bakel	32185	Buitencamp	De Steekproef Archeologisch Onderzoek en Adviesbureau	Tulp	Noord Brabant
Gemert - Bakel	32184	Heuvelacker	De Steekproef Archeologisch Onderzoek en Adviesbureau	Tulp	Noord Brabant
Giize en Rijen	26292	Hoofdstraat 16	Becker en van de Graaf	Hoven	Noord Brabant
Goedereede	29884	Smalle einde	Archaeological research and consultancy	Stokkel	Zuid Holland
Goes	26144	Singel / Zusterstraat	Archeomedia / Amicon	de Koning	Zeeland
Goes	31988	Oranjeweg / Stelleweg	SOB research	SOB research	Zeeland
Gorinchem	28581	...	Hollandia Cultuurhistorisch Onderzoek en Archeologie	Dautzenberg	Zuid Holland
Gorinchem	32745	Nieuwstad 7a-d	Hollandia Cultuurhistorisch Onderzoek en Archeologie	Floore	Zuid Holland
Gouda	28003	Gouda Nieuwe Haven	Jacobs en Bernier	Bernier	Zuid Holland
Groesbeek	31176	...	Archeodienst Gelderland BV	Weiss-Koenig	Gelderland
Haaren	26834	Wijngaert III	Bureau interdisciplinaire landschapsanalyse	Bureau interdisciplinaire landschapsanalyse	Noord Brabant
Haren	27490	...	RAAP	Hielkema	Groningen
Heeze - Lende	28359	Weiakkers	ADC archeoprojecten	van de Velde	Noord Brabant



Municipality	Research notification number	Toponym	Executed by	Project manager	Province
Heeze – Leende	28671	Averbodeweg	RAAP	van Wijk	Noord Brabant
Heiloo	28749	Matthijs zonder huisweg 1	Hollandia Cultuurhistorisch Onderzoek en Archeologie	de Koning	Noord Holland
Heiloo	32501	Westerweg 413	AAC	Lange	Noord Holland
Hellendoorn	31016	Eversberg – Combiplan Nijverdalen (locatie 1)	ADC archeoprojecten	Gerrets	Overijssel
Hengelo	28719	De veldkamp-schild es	RAAP	Scholte Lubberink	Overijssel
Hengelo	31043	Oosterveld	RAAP	RAAP	Overijssel
Heumen	32204	Broeksingel	Archeologisch centrum Vrije universiteit	van Renswoude	Gelderland
Hilvarenbeek	31900	Akkerstraat	Bureau interdisciplinaire landschapsanalyse	Bureau interdisciplinaire landschapsanalyse	Noord Brabant
Hoogeveen	31221	Fluitendiep – Koeweide / Oudediep	Groninger instituut voor Archeologie	Prummel	Drenthe
Hoom	27702	Bangert (Blokker)	Archeologische dienst gemeente Hoom	van der Walle - van der Woude	Noord Holland
Hoom	31677	Hoom	Archeologische dienst gemeente Hoom	Bartels	Noord Holland
Katwijk	29297	Katwijk, Zanderij	ADC archeoprojecten	van de Velde	Zuid Holland
Lingewaard	29105	...	Archaeological research and consultancy	Stokkel	Gelderland
Lingewaard	29640	Hortensialaan	Archaeological research and consultancy	Stokkel	Gelderland
Lingewaard	30656	Argropark 2	Archaeological research and consultancy	Stokkel	Gelderland
Littenseradiel	28728	...	Archaeological research and consultancy	Tuinstra	Friesland
Lochem	28055	Lumhortsstraat	Synthegra B.V.	Bouwmeester	Gelderland
Maasgouw	28926	Huize St. Joseph	AWN afdeling 23 Kempen en Peelland	Heijmans	Limburg
Maasgouw	29500	St. Joseph	BAAAC	Bink	Limburg
Maastricht	39441	Amby	Afdeling archeologie en monumentenzorg Maastricht	Afdeling archeologie en monumentenzorg Maastricht	Limburg
Maastricht	30984	Pasestraat	RACM	Lauwerier	Limburg
Meerssen	26428	Itteren Voulwames, Haertolsteinveld, Voulwames 2	Becker en van de Graaf	van de Graaf	Limburg
Meerssen	27125	Plangebied Voulwames, Haertolstein	Becker en van de Graaf	van de Graaf	Limburg
Middelburg	31002	Heronwikkeling sporthal 300301 – 03, Calzinastraat en Schutters...	ADC archeoprojecten	van de Velde	Zeeland
Midden-Delfland	28568	Harnaschpolder	Hollandia Cultuurhistorisch Onderzoek en Archeologie	Bakx	Zuid Holland
Montferland	26297	Het wijdeveld	Archeodienst Gelderland BV	van de Graaf	Gelderland
Nederbetuwe	30075	Kop van Dalwagen	RAAP	de Roode	Gelderland
Noordwijk	27180	De Achterweg	Becker en van de Graaf	Hoven	Zuid Holland
Noordwijk	31072	Hertenkamp	ADC archeoprojecten	Torremans	Zuid Holland
Nuenen C.A.	32030	Nedenwetten, Esrand	BAAAC	van der Weerden	Noord Brabant
Nuth	28757	Diepestraat	RAAP	Hensen	Limburg
Oisterwijk	30802	Poirtersstraat	RAAP	Tichelman	Noord Brabant
Oldambt	29091	Beersterweg	Archaeological research and consultancy	Archaeological research and consultancy	Groningen
Olst-Wijke	32384	Rondweg Wesepe	Oranjewoud bv	Vissinga	Overijssel
Oostzaan	27324	Kerkbuurt 1-6	Hollandia Cultuurhistorisch Onderzoek en Archeologie	Gerritsen	Noord Holland
Oss	26115	...	Archeologisch onderzoek Leiden b.v.	Goossens	Noord Brabant
Oss	26385	...	Archeologisch centrum universiteit Leiden	Jansen	Noord Brabant
Oss	29914	Brabantstraat	Archeologisch onderzoek Leiden b.v.	Goossens	Noord Brabant
Overbetuwe	29889	Uilenburg	ADC archeoprojecten	Roessingh	Gelderland
Overbetuwe	32157	Aanleg bergbezinkbasin Kerkstraat centrum	ADC archeoprojecten	Prangmsa	Gelderland
Peel en Maas	27265	Ragelseweg 79	Synthegra B.V.	Bouwmeester	Limburg
Raalte	28454	Sallantsepoort	AWN afdeling 16 Nijmegen e.o.	Lubberding	Overijssel
Reusel - de Mierden	26795	De leeuwerik	Archeologisch centrum Vrije universiteit	van Renswoude	Noord Brabant
Reusel - de Mierden	29334	Kerkekkers	Archeologisch onderzoek Leiden b.v.	Knippenberg	Noord Brabant
Reusel - de Mierden	30210	Kruisstraat 59	BAAAC	Bink	Noord Brabant
Rheden	28301	Eisweiden	RAAP	van Oosterhout	Gelderland
Rhenen	26630	Het Bosje	Archeologisch onderzoek Leiden b.v.	Hamburg	Utrecht
Roermond	30078	Pastoorwal	ADC archeoprojecten	Torremans	Limburg
Rotterdam	27488	Ijsselmonde 't Hart	BOOR	Schiltmans	Zuid Holland
Rotterdam	27487	Ijsselmonde 't Hart	BOOR	Schiltmans	Zuid Holland
Rotterdam	28312	Beverwaard Tramremise	BOOR	Ploeggaard	Zuid Holland
Schagen	31611	...	Hollandia Cultuurhistorisch Onderzoek en Archeologie	Vaars	Noord Holland
St. Michielsgestel	13686	Heesakkerstraat	RAAP	Tol	Noord Brabant
St. Michielsgestel	27792	...	ADC archeoprojecten	de Voogd	Noord Brabant
St. Michielsgestel	29236	Seminarielaan – Beekvlietstraat	Bureau interdisciplinaire landschapsanalyse	Bureau interdisciplinaire landschapsanalyse	Noord Brabant
Sittard – Geleen	27134	Sittard Ursulinencolplex; deelgebied Dominicanenwal	Archeodienst Gelderland BV	van de Graaf	Limburg
Sliedrecht	29258	Kerkbuurt	Synthegra B.V.	Spitsers	Zuid Holland
Son en Breugel	28172	Hiva terrein	Archeologisch centrum Vrije universiteit	van Renswoude	Noord Brabant
Strijen	31299	Grote Weel 1	SOB research	SOB research	Zuid Holland
Terneuzen	26413	Kanaalkruising Sluis Kil	Universiteit Gent	Bats	Zeeland
Tiel	30789	Muggenbord	Archeologisch centrum Vrije universiteit	van Renswoude	Gelderland

Municipality	Research notification number	Toponym	Executed by	Project manager	Province
Tilburg	32215	Enschotsebaan Noord	Bureau interdisciplinaire landschapsanalyse	Bureau interdisciplinaire landschapsanalyse	Noord Brabant
Tynaarlo	29637	Groote Veen west en oost	De Steekproef Archeologisch Onderzoek en Adviesbureau	Schrijer	Drenthe
Tynaarlo	31105	...	Archaeological research and consultancy	Schepers	Drenthe
Uitgeest	27045	Waldijk	RAAP	Ilson	Noord Holland
Uitgeest	28176	Waldijk 2	ADC archeoprojecten	Williams	Noord Holland
Utrecht	41674	Lichtegaerd 9	Gemeente Utrecht	Bakker	Utrecht
Valkenburg a/d Geul	29552	Kasteel Ruinen	IRACM	van Doesburg	Limburg
Valkenburg a/d Geul	30920	Genhoes	RAAP	Jansens	Limburg
Valkenswaard	31234	Dommelseweg 28a, 30	Bureau interdisciplinaire landschapsanalyse	Bureau interdisciplinaire landschapsanalyse	Noord Brabant
Veghel	31123	Peellandstraat	BAAC	Mooren	Noord Brabant
Veldhoven	27797	Habraken	BAAC	van der Weerde	Noord Brabant
Veldhoven	28746	Zuid-Oerle	AAC	Hissel	Noord Brabant
Veldhoven	31571	Kruisstraat	BAAC	van der Weerden	Noord Brabant
Venlo	26788	TPN noord, deelgebied 7	ADC archeoprojecten	Hakvoort	Limburg
Venlo	27004	deelgebied 1c, verbreding Heijerhoeveweg	ADC archeoprojecten	Hakvoort	Limburg
Venlo	28655	Helmesweg	ADC archeoprojecten	Gerrets	Limburg
Venlo	29885	Oudeberkt	ADC archeoprojecten	van Bentkom	Limburg
Venlo	31468	...	ADC archeoprojecten	Hakvoort	Limburg
Venray	28797	Depute Petersstraat	BAAC	Mooren	Limburg
Voorst	30449	Achter 't Holthuis	Archaeological research and consultancy	de Wit	Gelderland
Vught	???	Heuvel / Markveld	Gemeente den Bosch	Gemeente den Bosch	Noord Brabant
Waalwijk	31356	Grote straat 26a	Oranjewoud bv	Koopmanschap	Noord Brabant
Wageningen	31669	Herenstraat	Archaeological research and consultancy	Stokkel	Gelderland
Wassenaar	27203	...	Archeomedia / Armicon	de Koning	Zuid Holland
Westland	29126	Zuideweg	Archeologisch onderzoek Leiden b.v.	Goossens	Zuid Holland
Westland	32718	...	Archeologisch centrum Vrije universiteit	Koot	Zuid Holland
Wierden	28619	Witmoesdijk	RAAP	Verhelst	Overijssel
Wierden	29008	De Akkers	ADC archeoprojecten	de Voogd	Overijssel
Wijchen	26173	Bijsterhuizen	Bureau archeologie gemeente Nijmegen	van Enckevort	Gelderland
Zaanstad	31220	Fietspad oostelijk van Saendelft	Hollandia Cultureelhistorisch Onderzoek en Archeologie	Vaars	Noord Holland
Zaltbommel	29266	Hamblokestraat 12	BAAC	Mooren	Gelderland
Zevenaar	29837	Sleeg 11a	Becker en van de Graaf	van de Graaf	Gelderland
Zundert	31907	Wielhoef, Blauwhoef	ADC archeoprojecten	Alma	Noord Brabant
Zutphen	27148	Veldesebosweg 4	Gemeente Zutphen	Groothedde	Gelderland
Zutphen	29133	Henri Dunantweg, Hoornwel	Gemeente Zutphen	Groothedde	Gelderland
Zwolle	32539	Samuel Hirschstraat 2 en 4	Archeologische dienst Zwolle	Rogers	Overijssel

## Appendix B: Overview of research registered in Archis

Table 1 - report information table 1999

Municipality	City / Town	Province	Name research	Research notification number	Toponym	Client	Executed by	Motive	Size of plan area (m <sup>2</sup> )	Amount of excavation pits	Size of excavation plot (m <sup>2</sup> )	Nature of location	Estimated work (in working days)	Startdate	Actual work (in working days)	Source research report	Date of report	Startdate - report date (in years)	Report class
s-Gravenhage	Den Haag	Zuid-Holland	STE990	48607	Stekelenburg	Gemeente Den Haag	aadh	building activities					235	4/1/1999					
s-Gravenhage	Den Haag	Zuid-Holland	DR199	2352	DRIEHOEKJES		aadh	building activities					0	19/5/1999					
Aa en Hunze	Arloos	Drenthe		1980	BOSWEG		arc	other land activities					15	10/8/1999					
Amersfoort	Amersfoort	Utrecht		26671	Amicitia	Gemeente Amersfoort	saga	building activities					16	3/2/1999					
Amersfoort	Amersfoort	Utrecht		26695	Utrechtsestraat 37 - 39	Gemeente Amersfoort	saga	building activities					30	28/6/1999					
Amsterdam	Amsterdam	Noord-Holland		1902	Nieuwezijds Kolk		bmaa	other land activities					0	25/1/1999					
Bergen op Zoom	Bergen op Zoom	Noord-Brabant		6346			gberm	other land activities					0	31/12/1999					
Borsele	Borsele	Zeeland		8292	Steendamweg	Private	adc	infrastructure activities		7	3426	Rural	30	20/4/1999	25	DANS	May-00	<2	2*
Brielle	Brielle	Zuid-Holland	BOORrapporten 51	30572	Kaatsbaan 7 en 9	Gemeente Brielle	boor	building activities	Residential dwelling	3	Entire dwelling	Urban	4	13/9/1999	4	RCE Amersfoort	2000	<2	2*
Brielle	Brielle	Zuid-Holland	BOORrapporten 53	30558	Clarissenklooster	Gemeente Brielle	boor	building activities		5		Urban	10	25/10/1999	10	DANS	2000	<2	2*
Deift	Deift	Zuid-Holland		4678	MD4.25		aac	other land activities					0	1/2/1999					
Deventer	Deventer	Overijssel	Papenstraat/Muggeplein	31556	Papenstraat: Muggeplein		agemd	other land activities		5		Urban	60	27/7/1999		DANS	2000	2	2*
Eindhoven	Eindhoven	Noord-Brabant		1910	Smalle haven / Catharinaplein		ehvaa	other land activities					200	15/7/1999					
Emmen	Noordbargeres	Drenthe		1916	Noordbargeres	Gemeente Emmen	arc	other land activities	500000	32		Rural	10	1/3/1999	57	RCE Amersfoort	1999	<1	2*
Emmen	Noordbargeres	Drenthe		1919	Noordbargeres			other land activities					0	19/4/1999					
Franekeradeel	Peins	Friesland		1981	Peins - Oost		ipp	other land activities					20	30/8/1999					
Houten	Houten	Utrecht		1937	Hoogdijk terrein 89	Gemeente Houten	adc	building activities		4	966	Rural	0	3/5/1999		DANS	May-01	2	2*
Katwijk	Rijnsburg	Zuid-Holland		1931	Gemeentehuis		adc	building activities					0	20/5/1999					
Leiden	Leiden	Zuid-Holland		1932	Rapenburg 70-74		bmal	other land activities					15	21/4/1999					
Leudal	Neer	Limburg		25134	Sint Martinuskerk		ssleu	building activities					30	4/9/1999					
Lingewaal	Heukelum	Gelderland		1946	Molenstraat	Gemeente Lingewaal	adc	building activities	ca.750	1	125	Urban	0	27/4/1999	5	DANS	1999	<1	1*
Maastricht	Maastricht	Limburg		18181	Kessieskade 51		gmaat	building activities					20	1/3/1999					
Menameradiel	Dronrijp	Friesland		44185	De Alde Witte	Provincie Friesland	baac	building activities				Urban	18	1/2/1999	25	RCE Amersfoort	Jan-01	<2	3*
Menameradiel	Dronrijp	Friesland		1917	Schatzenburg		arc	other land activities		0	0	Rural	1	8/3/1999	1	DANS			
Nijkerk	Nijkerk	Gelderland		2086	ROL project I, II en III	Private	adc	infrastructure activities		5	1050	Rural	0	16/8/1999	10	DANS	May-00	<1	2*
Oosterhout	Oosterhout	Noord-Brabant	Steehoven	38307	Steehoven	Gemeente Oosterhout	goost	other land activities					50	Apr-99					
Oss	Oss	Noord-Brabant		2423	Arendsvlucht	Stichting Wonen voor Ouderen Maasland	baac	other land activities	ca.6000-12000	6	600	Urban	0	8/11/1999	29	DANS	Aug-01	<2	1*
Raalte	Raalte	Overijssel		8042	Westenenk	Gemeente Raalte	adc	building activities		24	>1000	Rural	60	19/3/1999	60	DANS	1999	<1	2*
Rotterdam	Pernis	Zuid-Holland	BOORrapporten 71	30316	polder Oud Pernis	Projectbureau Beneluxlijn	boor	infrastructure activities	85.5	1	85,5	Rural	3	7/6/1999		RCE Amersfoort	2001	2	2*
Schagen	Schagen	Noord-Holland		2053	Markt	Provincie Noord-Holland	adc	other land activities		1	66	Urban	0	5/10/1999	11	DANS	Jan-00	<1	2*
Utrecht	De Meern	Utrecht		1936	Hoge Woerd	Bouwfonds Fortis Vastgoedontwikkeling	adc	building activities	50000	10	3851	Rural	25	19/4/1999	7 in 1999, 13 in 2000	DANS	Feb-01	<2	1*
Utrecht	Vleuten	Utrecht		2085	t Zand / Bloemenveiling		rob	other land activities	22500000	4	735	Rural	0	30/11/1999	8	RCE Amersfoort	2002	>2	2*
Velsen	Velsen	Noord-Holland		1935	Velserbroek	Gemeente Velsen	adc	other land activities		5	1100	Rural	0	31/5/1999		DANS	Mar-01	<2	2*
Waalwijk	Waalwijk	Noord-Brabant		2422	Grotestraat 371 - 373	Gemeente Waalwijk	ibid	infrastructure activities		1		Urban	0	1/3/1999		RCE Amersfoort	Feb-00	<1	3*
Wijchen	Wijchen	Gelderland		33761		Gemeente Wijchen	bagn	building activities					999	20/7/1999					
Wijk bij Duurstede 1	Onbekend	Utrecht		8099	Singel; Zandweg	Gemeente Wijk bij Duurstede	adc	building activities		12		Urban	10	1/11/1999	11	DANS			
Wijk bij Duurstede 2	Wijk bij Duurstede	Utrecht		2316	Singel; Zandweg	Gemeente Wijk bij Duurstede	adc	building activities		12		Urban	0	1/11/1999	11	DANS	Apr-00	<1	2*
Winterswijk	Winterswijk	Gelderland		1956	de Eelinkes	Gemeente Winterswijk	adc	building activities	3500	5	1900	Rural	0	10/4/1999	10	DANS	Jan-00	<1	1*
Zuidplas	Nieuwerkerk a/d IJssel	Zuid-Holland	Archeologisch Onderzoek Bestemmingsplan Even Buiten, Oud-Beijerland	0 (*)		Gemeente Oud Beijerland	arnic		4400	3	150	Rural		29/05/99		RCE Amersfoort / DANS	Oct-99	<1	3*

(\*) This report was added through research at the RCE Amersfoort, no research notification number has been assigned to this excavation. This excavation has been excluded from all research graphs and tables, this research did not take place in 1999 or has wrongly been added to multiple municipalities / no archeological report class; nr.\* This excavation has no report uploaded on Archis, RCE or DANS. Therefore this excavation has been excluded from all research graphs and tables. This report was added through DANS or RCE Amersfoort, not accessible / added in Archis. Explanation of the abbreviations used for excavators can be found in Appendix B - table 3.





Municipality	City / Town	Province	Name research	Research notification number	Toponym	Client	Executed by	Motive	Size of plan area (m <sup>2</sup> )	Amount of excavation pits	Size of excavation plot (m <sup>2</sup> )	Nature of location	Estimated work (in working days)	Startdate	Actual work (in working days)	Source research report	Date of report	Startdate - Report date (in years)	Report class
Valkenswaard	Valkenswaard	Noord Brabant	Valkenswaard, Dommelseweg 28a en 30	31234	Dommelseweg 28a, 30	CRA Ontwikkeling BV	bilan	building activities	4200	4	2837	Urban	10	06/10/08	13	ARCHIS	Oct-11	>2	1
Veghel	Veghel	Noord Brabant		31123	Peellandstraat	Woonbelang Veghel	baac	building activities	22000	26	8000	Urban	20	08/10/08	30	ARCHIS	Apr-11	>2	1
Veldhoven	Veldhoven	Noord Brabant	Habraken, vindplaats A	27797	Habraken	Private	baac	building activities	66000	1	250	Rural	10	31/03/08	10	RCE Amersfoort	Nov-08	<1	1*
Venlo	Hout-Blerick	Limburg	Hout-Blerick Helmusweg DO	28655	Helmusweg	Zuidgrond BV	adc	building activities	41000	4	1350	Urban	5	13/05/08	4	ARCHIS	Apr-10	<2	1
Veldhoven	Veldhoven	Noord Brabant		28746		Gemeente Veldhoven	aac	building activities	36000	10	ca. 10000?	Rural	40	26/05/08	43	ARCHIS	Jun-12	>2	2
Venlo	Venlo	Limburg	Venlo -Deelgebieden 1 en 2-terrein E	29885	Oude Berkt	Gemeente Venlo	adc	infrastructure activities		Circa 25-30	20742	Rural	17	21/07/08	60	ARCHIS	Jan-11	>2	2
Venlo	Venlo	Limburg		26788	TPN Noord deelgebied 7	Gemeente Venlo	adc	building activities		100	102925.35	Rural	58	11/02/08	78	ARCHIS	*March 2010		2
Venlo	Venlo	Limburg		27004 (see 29885)	deelgebied 1c, verbreding Heijerhoeveveg	Gemeente Venlo	adc	infrastructure activities	(see 29885)	(see 29885)	(see 29885)	(see 29885)	10	18/02/08	(see 29885)	ARCHIS			
Venlo	Hout-Blerick	Limburg	Hout-Blerick Helmusweg DO	28655	Helmusweg		adc	building activities											
Venlo	Venlo	Limburg		31468 (see 29885)		Gemeente Venlo	adc	building activities	(see 29885)	(see 29885)	(see 29885)	(see 29885)	75	13/10/08	(see 29885)	ARCHIS			
Venray	Oirlo	Limburg	Definitief onderzoek	28797	Depute Petersstraat	Gemeente Venray	baac	building activities	8700	7	2503	Rural	20	26/05/08	10	ARCHIS	Sep-09	<2	1
Voorst	Twello	Gelderland		30449	Achter 't Holthuis	Gemeente Voorst	arc	building activities					0	25/08/08					
Vught	Vught	Noord Brabant		50370	Heuvel/markveld	Gemeente 's Hertogenbosch	gherh	building activities					1	15/01/08					
Waalwijk	Waalwijk	Noord Brabant	Grotestraat 266	31356	Grotestraat 266	Particulier	oranj	building activities					17	22/10/08					
Wageningen	Wageningen	Gelderland	Herenstraat	31669	Herenstraat		arc	building activities					2	30/11/08					
Wassenaar	Onbekend	Zuid Holland		27203			amic	building activities					10	10/03/08					
Westland	Naaldwijk	Zuid Holland	Naaldwijk Hoogeland	29126	Zuidweg		archol	building activities					55	09/06/08					
Westland	Naaldwijk	Zuid Holland		32718			acvu	building activities					9	01/12/08					
Wierden	Enter	Overijssel	WENW	28619	Witmoesdijk		raap	building activities					2	15/05/08					
Wierden	Wierden	Overijssel		29008	De Akkers	Gemeente Wierden	adc	building activities	1828	4 sleuven 6 putten		Rural	10	02/06/08	5	RCE Amersfoort	2009	<2	2*
Wijchen	Wijchen	Gelderland		26173	Bijsterhuizen	G.R. Bijsterhuizen	bagn	building activities		21		Rural	50	02/01/08	89	ARCHIS	2011	>2	2
Zaanstad	Assendelft	Noord Holland	Fietspad oostelijk van Saendelft	31220	Fietspad oostelijk van Saendelft	Gemeente Zaanstad	holla	infrastructure activities					4	13/10/08					
Zaltbommel	Aalst	Gelderland		29266	Hamblokestraat	MinF Ontwerp en Advies	baac	building activities	968	2	180	Rural	6	02/07/08	5	ARCHIS	Jun-09	<1	1
Zevenaar	Zevenaar	Gelderland	Sleeg 11A	29837	Sleeg 11A	Gemeente Zevenaar	becke	building activities					10	14/07/08					
Zundert	Zundert	Noord Brabant		31907	Wielhoef, Blauwe Hoef	Waterschappen	adc	building activities	2800		2600	Rural	2	06/11/08	2	ARCHIS	Mar-09	<1	2
Zutphen	Warnsveld	Gelderland		27148	Veldesebosweg 4	Private	gzufn	building activities		1	175	Urban	3	03/03/08	4	DANS	Jun-08	<1	2*
Zutphen	Zutphen	Gelderland	Herinrichting plangebied	29133	Henri Dunantweg, Hoornwerk (voormalig NSC-terrein)	Van der Looy projectmanagement	gzufn	building activities		1		Urban	4	02/06/08	4	ARCHIS	Oct-08	<1	2
Zwolle	Zwolle	Overijssel		32539	Samuel Hirschstraat nr. 2 en 4	Gemeente Zwolle	azwol	building activities		1		Urban	20	09/12/08	7 days in 2008, 59 later	ARCHIS	*2011		2

This excavation has been excluded from all research graph and tables, this research did not take place in 2008 or has wrongly been added to multiple municipalities / no archeological excavation.

This excavation has no report uploaded on Archis, RCE or DANS. Therefore this excavation has been excluded from all research graph and tables.

Date of report; \*(date) This is a combined report with excavations later than 2008. This report date has not been used for the Start date - report date research.

Report class; \*(nr.)\* This report was added through DANS or RCE Amersfoort, not accessible / added in Archis.

Explanation of the abbreviations used for excavators can be found in Appendix B - table 3.

## Appendix B: Overview of research registered in Archis

Table 3 - abbreviations

Abbreviation	Company
aac	Amsterdams Archeologisch Centrum (UvA)
aadh	Afdeling Archeologie, Dienst Stadsbeheer, Gemeente Den Haag
acvu	Archeologisch Centrum Vrije Universiteit
adc	ADC ArcheoProjecten
adhoo	Archeologische dienst gemeente Hoorn
agemd	Archeologie Deventer RMW-VHMZ
amaga	Afdeling Monumentenzorg en Archeologie Gemeente Alkmaar
ammaa	Afdeling Archeologie en Monumenten Gemeente Maastricht
arc	Archaeological Research and Consultancy
archol	Archeologisch onderzoek Leiden BV
ardgl	Archeologische dienst Gelderland
arnic	archeomedia/arnicon
awn16	Vereniging Vrijwillige archeologen afdeling 16
awn23	Vereniging Vrijwillige archeologen afdeling 23
azwol	Archeologische dienst zwolle
baac	BAAC bv
becke	Becker en Van de Graaf
bilan	Bureau Interdisciplinaire Landschapanalyse
bmaa	Bureau Monumenten & Archeologie Amsterdam
bmal	Bureau Monumenten & Archeologie Leiden
boor	Bureau Oudheidkundig Onderzoek Gemeentewerken Rotterdam
ehvaa	Afdeling Archeologie Gemeente Eindhoven
garnm	Gemeente Arnhem
gberm	Gemeente Bergen op Zoom
gbrea	Gemeente Breda
gdelf	Gemeente Delft
gdort	Gemeente Dordrecht
gherh	Gemeente 's Hertogenbosch
gia	Groninger instituut voor Archeologie
gmaat	Unknown
goost	Unknown
gront	Grontmij
gutrt	Gemeente Utrecht
gzutn	Gemeente Zutphen
holla	Hollandia cultuurhistorisch onderzoek
ibid	Instituut voor Bouwhistorische en Inventarisatie en Documentatie
ipp	Unknown
jacbu	Jacobs en Burnier
oranj	Oranjewoud BV
racm	Rijksdienst voor Archeologie, Cultuurlandschap en Monumenten
rob	Rijksdienst voor het Oudheidkundig Bodemonderzoek
rulei	Universiteit Leiden
saga	Sectie Archeologie Gemeente Amersfoort
sobr	SOB research
ssleu	Stichting Studiegroep Leudal e.o.
steek	De steekproef, archeologisch onderzoeks- en adviesbureau
synt	SyntheGra BV
unige	Universiteit van Gent

## Appendix C: Archis registered non-excavation research

Table 1 - All archaeological research (no excavations) 1999

Municipality	Archis research notification number	Type of research
Aa en Hunze	11237	BOO
Aa en Hunze	11246	BOO
Aa en Hunze	11245	BOO
Alphen ad Rijn	11108	BOO
Ameland	2960	BOO
Slochteren	11178	BOO
Renkum	10329	BOO
Bergen (N-H)	10820	BOO
Bronckhorst	3030	BOO
Cuijk	3068	BOO
De Bilt	3025	BOO
Dongeradeel	2831	BOO
Eijsden-Margraten	2989	BOO
Eijsden-Margraten	10527	BOO
Geertruidenberg	10560	BOO
Goirle	20834	BOO
Haarlemmermeer	2834	BOO
Haarlemmermeer	11370	BOO
Haarlemmermeer	11368	BOO
Heerde	10794	BOO
Heiloo	10333	BOO
Hillegom	11139	BOO
Lansingerland	10782	BOO
Rijnwoude (Lansingerland)	10781	BOO
Leeuwarden	2959	BOO
Lopik	10335	BOO
Maasgouw	2866	BOO
Meerssen	10506	BOO
Moerdijk	5726	BOO
Montfoort	3005	BOO
Nieuwegein	3298	BOO
Noordenveld	2824	BOO
Oud-Beijerland	11265	BOO
Oud-Beijerland	11267	BOO
Renkum	10329	BOO
Rijnwaarden	10774	BOO
Rijnwaarden	3028	BOO
Roermond	10549	BOO
Rotterdam	10779	BOO
Rotterdam	30617	BOO
Schagen	2851	BOO
Slochteren	11176	BOO
Slochteren	11175	BOO
Someren	11005	BOO



Municipality	Archis research notification number	Type of research
Steenwijkerland	2994	BOO
Stichtse Vecht	2927	BOO
Stichtse Vecht	10574	BOO
Stichtse Vecht	10573	BOO
Texel	2950	BOO
Ubbergen	11299	BOO
Valkenswaard	10550	BOO
Velsen	4959	BOO
Waddinxveen	10781	BOO
Westerveld	11062	BOO
Westerveld	11061	BOO
Westerveld	11060	BOO
Westerveld	11066	BOO
Westerveld	11067	BOO
Westerveld	11065	BOO
Westerveld	11064	BOO
Woerden	10502	BOO
Woerden	3014	BOO
Woerden	10626	BOO
Wormerland	2967	BOO
Zijpe	10821	BOO
Zuidhorn	39234	BOO
Zwartewaterland	11160	BOO
Zwartewaterland	11159	BOO
Zwartewaterland	11158	BOO
Zwartewaterland	11156	BOO
Zwartewaterland	11157	BOO
het Bildt	3296	BOO
Loppersum	3285	GEO
Asten	2107	PPS
Capelle a/d IJssel	30982	PPS
Hendrik-Ido-Ambacht	30583	PPS
Roermond	2112	PPS
Rozendaal	1939	PPS
Stein	2115	PPS

## Appendix C: Archis registered non-excavation research

Table 2 - All archaeological research (no excavations) 2008

Municipality	Archis research notification number	Type of research
Den Haag	28048	BOO
Aa en Hunze	30019	BOO
Aalburg	29793	BOO
Aalten	31335	BOO
Aalten	31336	BOO
Achtkarspelen	28141	BOO
Alblasserdam	27892	BOO
Alblasserdam	32105	BOO
Albrandswaard	31848	BOO
Almelo	29551	BOO
Almelo	32166	BOO
Almere	30515	BOO
Almere	30514	BOO
Alphen ad Rijn	26040	BOO
Alphen-Chaam	28756	BOO
Ameland	26924	BOO
Apeldoorn	31007	BOO
Lingewaard	31081	BOO
Asten	27873	BOO
Alphen-Chaam	32257	BOO
Barendrecht	30060	BOO
Barendrecht	30388	BOO
Barendrecht	28705	BOO
Barendrecht	30569	BOO
Barendrecht	29635	BOO
Bellingwedde	31093	BOO
Bergambacht	26268	BOO
Bergeijk	27803	BOO
Bergeijk	29575	BOO
Bergeijk	27804	BOO
Bergen (L)	29682	BOO
Bergen (L)	28340	BOO
Bernisse	29147	BOO
Best	30344	BOO
Beverwijk	31483	BOO
Beverwijk	30053	BOO
Bladel	26097	BOO
Bladel	18457	BOO
Bladel	31001	BOO
Bladel	32458	BOO
Blaricum	29940	BOO
Blaricum	26943	BOO
Bodegraven-Reeuwijk	27987	BOO
Boekel	26919	BOO
Borger-Odoorn	27334	BOO
Borger-Odoorn	27335	BOO

Municipality	Archis research notification number	Type of research
Borger-Odoorn	29724	BOO
Borne	26631	BOO
Borne	28296	BOO
Borne	26853	BOO
Boskoop	26719	BOO
Waddinxveen (Boskoop)	29955	BOO
Boskoop	27091	BOO
Boxmeer	32101	BOO
Boxmeer	32102	BOO
Boxmeer	32103	BOO
Boxtel	29660	BOO
Brielle	31434	BOO
Brielle	31970	BOO
Brielle	27285	BOO
Brielle	32400	BOO
Bronckhorst	31327	BOO
Bronckhorst	28093	BOO
Bronckhorst	32569	BOO
Brummen	28318	BOO
Brummen	26974	BOO
Bunschoten	29481	BOO
Buren	30182	BOO
Bussum	32620	BOO
Bussum	27752	BOO
Capelle a/d IJssel	29795	BOO
Capelle a/d IJssel	28384	BOO
Capelle a/d IJssel	28482	BOO
Capelle a/d IJssel	29634	BOO
Castricum	31744	BOO
Castricum	29414	BOO
Emmen (Coevorden)	29523	BOO
Cranendonck	27449	BOO
Cranendonck	27447	BOO
Cranendonck	27445	BOO
Cranendonck	27444	BOO
Cranendonck	27443	BOO
Cranendonck	27440	BOO
Culemborg	26609	BOO
Dantumadiel	26693	BOO
Tytsjerksteradiel (Dantumadiel)	27723	BOO
De Bilt	32026	BOO
De Ronde Venen	30880	BOO
De Wolden	28161	BOO
De Wolden	31531	BOO
De Wolden	31530	BOO
Den Helder	32121	BOO

Municipality	Archis research notification number	Type of research
Deurne	26548	BOO
Diemen	29943	BOO
Dongen	25968	BOO
Dordrecht	28224	BOO
Dordrecht	29920	BOO
Drechterland	32299	BOO
Drimmelen	28800	BOO
Drimmelen	28980	BOO
Druten	28425	BOO
Druten	29061	BOO
Druten	29045	BOO
Druten	31513	BOO
Duiven	30080	BOO
Duiven	30406	BOO
Ede	25880	BOO
Ede	25882	BOO
Eersel	30424	BOO
Elburg	28207	BOO
Elburg	27610	BOO
Elburg	28913	BOO
Emmen	29827	BOO
Emmen	26046	BOO
Emmen	26047	BOO
Enschede	31557	BOO
Enschede	32523	BOO
Enschede	26197	BOO
Enschede	26434	BOO
Etten-Leur	30221	BOO
Etten-Leur	32286	BOO
Ferweradiel	27031	BOO
Ferweradiel	26118	BOO
Gaasterlan-Sleat	31713	BOO
Gaasterlan-Sleat	31012	BOO
Geertruidenberg	30926	BOO
Geldermalsen	26198	BOO
Gemert-Bakel	27647	BOO
Gemert-Bakel	30547	BOO
Giessenlanden	29043	BOO
Giessenlanden	33760	BOO
Goes	26533	BOO
Goirle	27851	BOO
Gorinchem	30393	BOO
Bodegraven-Reeuwijk (Gouda)	29405	BOO
Gouda	31069	BOO
Graafstroom	26923	BOO
Grave	30887	BOO

Municipality	Archis research notification number	Type of research
Groesbeek	26463	BOO
Haaksbergen	30881	BOO
Haaksbergen	26380	BOO
Haaksbergen	31905	BOO
Haaren	31732	BOO
Haaren	27345	BOO
Haaren	31314	BOO
Halderberge	28035	BOO
Halderberge	28046	BOO
Harderwijk	27975	BOO
Harderwijk	26229	BOO
Haren	30780	BOO
Langedijk (Harenkarspel)	27630	BOO
Harenkarspel	32798	BOO
Harenkarspel	32290	BOO
Harenkarspel	32289	BOO
Hollands Kroon (Haren)	29146	BOO
Dronten (Hattem)	26004	BOO
Heemskerk	26903	BOO
Heemskerk	29058	BOO
Heerde	26383	BOO
Heerde	26958	BOO
Koggenland (Heerhugowaard)	32295	BOO
Heerhugowaard	28258	BOO
Heerlen	31428	BOO
Heeze-Leende	29755	BOO
Heeze-Leende	27479	BOO
Heeze-Leende	31801	BOO
Heeze-Leende	31280	BOO
Heeze-Leende	31282	BOO
Heeze-Leende	32352	BOO
Hellendoorn	26302	BOO
Hellendoorn	29846	BOO
Hellendoorn	31636	BOO
Hellendoorn	31025	BOO
Hellendoorn	31628	BOO
Hellevoetsluis	29792	BOO
Hendrik-Ido-Ambacht	28806	BOO
Hengelo	28810	BOO
Hengelo	29449	BOO
Hengelo	26948	BOO
Heumen	31723	BOO
Hilvarenbeek	28422	BOO
Hilvarenbeek	30544	BOO
Hilvarenbeek	27678	BOO
Hilvarenbeek	27675	BOO

Municipality	Archis research notification number	Type of research
Hilvarenbeek	27672	BOO
Hilvarenbeek	27669	BOO
Hilvarenbeek	30098	BOO
Hollands Kroon	27583	BOO
Hoogeveen	27693	BOO
Hoogeveen	29037	BOO
Hoogezand-Sappemeer	27923	BOO
Hoorn	32299	BOO
Horst aan de Maas	31612	BOO
Horst aan de Maas	26403	BOO
Horst aan de Maas	27707	BOO
Huizen	30785	BOO
Hulst	31527	BOO
Hulst	30642	BOO
IJsselstein	28761	BOO
IJsselstein	30252	BOO
Kaag en Braassem	26553	BOO
Kampen	28734	BOO
Kapelle	26871	BOO
Kapelle	31227	BOO
Kerkrade	30070	BOO
Kerkrade	28259	BOO
Koggenland	32052	BOO
Kollumerland c.a.	27419	BOO
Kollumerland c.a.	26570	BOO
Kollumerland c.a.	31682	BOO
Laarbeek	28547	BOO
Langedijk	29329	BOO
Laren	30175	BOO
Leek	28744	BOO
Leek	29467	BOO
Leeuwarden	31652	BOO
Leiden	27850	BOO
Leiden	28522	BOO
Lelystad	27377	BOO
Lelystad	31550	BOO
Lemsterland	28688	BOO
Leudal	26052	BOO
Leudal	28995	BOO
Leusden	26620	BOO
Liesveld	26583	BOO
Liesveld	32394	BOO
Lisse	30048	BOO
Littenseradiel	28233	BOO
Lochem	32047	BOO
Zutphen (Lochem)	26608	BOO

Municipality	Archis research notification number	Type of research
Loon op Zand	31740	BOO
Lopik	31035	BOO
Loppersum	27935	BOO
Losser	30468	BOO
Losser	29751	BOO
Maasdonk	31287	BOO
Maasgouw	29320	BOO
Opsterland (Marum)	31644	BOO
Grootegast (Marum)	31643	BOO
Medemblik	26905	BOO
Menameradiel	29387	BOO
Menterwolde	28648	BOO
Oldambt (Menterwolde)	29725	BOO
Midden-Delfland	28110	BOO
Midden-Drenthe	27245	BOO
Mill en Sint Hubert	26895	BOO
Millingen aan de Rijn	29561	BOO
Millingen aan de Rijn	29562	BOO
Millingen aan de Rijn	29638	BOO
Millingen aan de Rijn	27098	BOO
Moerdijk	29683	BOO
Moerdijk	27970	BOO
Bronckhorst (Montferland)	30407	BOO
Montferland	31521	BOO
Montferland	28153	BOO
Montfoort	29452	BOO
Mook en Middelaar	26562	BOO
Muiden	26898	BOO
Nederweert	26565	BOO
Nederweert	29599	BOO
Nederweert	28882	BOO
Nederweert	32431	BOO
Neerijnen	32758	BOO
Nieuwegein	28733	BOO
Nieuwkoop	32323	BOO
Nieuwkoop	26384	BOO
Noord-Beveland	29917	BOO
Noord-Beveland	29710	BOO
Noordenveld	27310	BOO
Noordenveld	26372	BOO
Noordoostpolder	30902	BOO
Noordoostpolder	30903	BOO
Noordoostpolder	30394	BOO
Noordwijk	26262	BOO
Nuenen c.a.	26274	BOO
Nuenen c.a.	30463	BOO

Municipality	Archis research notification number	Type of research
Nuenen c.a.	30660	BOO
Nunspeet	27906	BOO
Nunspeet	31338	BOO
Nunspeet	27899	BOO
Nuth	27386	BOO
Oirschot	27266	BOO
Oirschot	26859	BOO
Oldambt	30658	BOO
Oldenzaal	28343	BOO
Oldenzaal	27161	BOO
Oldenzaal	27219	BOO
Olst-Wijhe	31673	BOO
Onderbanken	32525	BOO
Onderbanken	27016	BOO
Onderbanken	27359	BOO
Oost Gelre	29816	BOO
Oost Gelre	32127	BOO
Oosterhout	31418	BOO
Midden-Drenthe (Ooststellinwerf)	28684	BOO
Ooststellingwerf	28789	BOO
Oss	26492	BOO
Oude IJsselstreek	32271	BOO
Oude IJsselstreek	28939	BOO
Ouderkerk	27305	BOO
Ouderkerk	27339	BOO
Ouderkerk	27340	BOO
Ouderkerk	27342	BOO
Oudewater	26360	BOO
Oudewater	27782	BOO
Peel en Maas	30953	BOO
Peel en Maas	31749	BOO
Peel en Maas	30343	BOO
Pijnacker-Nootdorp	30215	BOO
Putten	27948	BOO
Putten	26253	BOO
Putten	27879	BOO
Raalte	31853	BOO
Raalte	28513	BOO
Raalte	29866	BOO
Reimerswaal	30834	BOO
Renkum	26514	BOO
Reusel-De Mierden	29578	BOO
Wageningen (Rhenen)	29116	BOO
Ridderkerk	29431	BOO
Ridderkerk	29697	BOO
Rijnwaarden	26401	BOO



Municipality	Archis research notification number	Type of research
Rijnwaarden	29181	BOO
Rijnwaarden	30151	BOO
Rijnwoude	27296	BOO
Rijssen-Holten	31402	BOO
Rijswijk	28048	BOO
Roermond (Roerdalen)	30788	BOO
Roermond (Roerdalen)	29411	BOO
Roerdalen	29998	BOO
Roermond	31429	BOO
Roosendaal	29874	BOO
Rotterdam	27898	BOO
Rucphen	32964	BOO
Rucphen	28218	BOO
Schagen	31385	BOO
Schagen	31382	BOO
Schagen	31383	BOO
Schinnen	29359	BOO
Schouwen-Duiveland	32133	BOO
Schouwen-Duiveland	32134	BOO
Schouwen-Duiveland	32135	BOO
Sint-Michielsgestel	27895	BOO
Sint-Michielsgestel	27896	BOO
Sint-Michielsgestel	28579	BOO
Sint-Michielsgestel	34529	BOO
Sint-Michielsgestel	27559	BOO
Sint-Michielsgestel	31973	BOO
Sittard-Geleen	29171	BOO
Sittard-Geleen	26367	BOO
Skarsterlan	29907	BOO
Skarsterlan	29896	BOO
Skarsterlan	29894	BOO
Slochteren	26956	BOO
Sluis	29002	BOO
Sluis	29004	BOO
Smallingerland	29103	BOO
Soest	31181	BOO
Soest	32252	BOO
Soest	29966	BOO
Soest	29963	BOO
Son en Breugel	26301	BOO
Staphorst	27606	BOO
Staphorst	26579	BOO
Stede Broec	31465	BOO
Stede Broec	27156	BOO
Stede Broec	31397	BOO
Steenwijkerland	26752	BOO

Municipality	Archis research notification number	Type of research
Steenwijkerland	26322	BOO
Steenwijkerland	28987	BOO
Steenwijkerland	30303	BOO
Weststellingwerf (Steenwijkerland)	29187	BOO
Sudwest Fryslan	29566	BOO
Terschelling	31869	BOO
Terschelling	31866	BOO
Terschelling	31868	BOO
Terschelling	31865	BOO
Terschelling	31871	BOO
Terschelling	31867	BOO
Texel	32989	BOO
Texel	30129	BOO
Teylingen	27248	BOO
Tilburg	30064	BOO
Tilburg	29999	BOO
Tilburg	30124	BOO
Tubbergen	31462	BOO
Twenterand	32382	BOO
Twenterand	31211	BOO
Tynaarlo	27912	BOO
Tytsjerksteradiel	29838	BOO
Tytsjerksteradiel	31223	BOO
Ubbergen	28369	BOO
Ubbergen	32499	BOO
Ubbergen	31080	BOO
Uden	27315	BOO
Uden	29582	BOO
Uden	28426	BOO
Urk	29427	BOO
Urk	28285	BOO
Utrechtse Heuvelrug	30025	BOO
Valkenburg a/d Geul	27086	BOO
Valkenswaard	28972	BOO
Veendam	26376	BOO
Veenendaal	28699	BOO
Veenendaal	31174	BOO
Veghel	31945	BOO
Veldhoven	31437	BOO
Venlo	28491	BOO
Venlo	26309	BOO
Vlaardingen	32428	BOO
Vlaardingen	33957	BOO
Voerendaal	30386	BOO
Voerendaal	30884	BOO
Deventer (Voorst)	31408	BOO

Municipality	Archis research notification number	Type of research
Vught	29224	BOO
Vught	30713	BOO
Waalre	28718	BOO
Waalwijk	27049	BOO
Waalwijk	28796	BOO
Wageningen	26355	BOO
Wassenaar	26396	BOO
Wassenaar	26003	BOO
Weert	31851	BOO
Weert	26242	BOO
Weert	28143	BOO
Werkendam	32513	BOO
West Maas en Waal	31828	BOO
Westerveld	27281	BOO
Westerveld	28087	BOO
Weststellingwerf	26589	BOO
Weststellingwerf	29148	BOO
Weststellingwerf	26964	BOO
Westvoorne	26254	BOO
Westvoorne	26729	BOO
Westvoorne	29072	BOO
Westvoorne	28130	BOO
Eemsmond (Winsum)	28054	BOO
Winterswijk	30664	BOO
Winterswijk	29871	BOO
Woudenberg	32100	BOO
Zaanstad	32058	BOO
Zaltbommel	27410	BOO
Zederik	29636	BOO
Zeewolde	31510	BOO
Zeewolde	31509	BOO
Zevenaar	27747	BOO
Zevenaar	28526	BOO
Zevenaar	31232	BOO
Zijpe	27111	BOO
Zijpe	27917	BOO
Zijpe	26217	BOO
Zijpe	29931	BOO
Zoeterwoude	29554	BOO
Zoeterwoude	28989	BOO
Winsum (Zuidhorn)	28057	BOO
Zundert	32089	BOO
Zundert	32142	BOO
Zwijndrecht	27350	BOO
het Bildt	26345	BOO
Den Haag	30100	BUO

Municipality	Archis research notification number	Type of research
Aalsmeer	27183	BUO
Aalsmeer	28911	BUO
Aalsmeer	29286	BUO
Aalsmeer	27434	BUO
Aalsmeer	31263	BUO
Aalsmeer	27439	BUO
Hengelo	29354	BUO
Almelo	28374	BUO
Zeewolde	27234	BUO
Ameland	26922	BUO
Amstelveen	27734	BUO
Amsterdam	28079	BUO
Arnhem	27787	BUO
Beek	30842	BUO
Beek	31454	BUO
Zeevang (Beemster)	27170	BUO
Bergen (N-H)	30548	BUO
Bergen (L)	32606	BUO
Berkelland	30166	BUO
Beverwijk	30052	BUO
Bladel	30335	BUO
Bloemendaal	26833	BUO
Bloemendaal	26824	BUO
Bloemendaal	26828	BUO
Hof van Twente (Borne)	28311	BUO
Boskoop	27436	BUO
Boxtel	30136	BUO
Brielle	31576	BUO
Zutphen (Bronckhorst)	28242	BUO
Brunssum	29487	BUO
Cuijk	30453	BUO
Dalfsen	28816	BUO
Dalfsen	27976	BUO
Tytsjerksteradiel (Dantumadiel)	27694	BUO
De Bilt	32192	BUO
De Marne	31054	BUO
De Marne	31921	BUO
De Marne	30824	BUO
De Wolden	28458	BUO
Delfzijl	26350	BUO
Delfzijl	32550	BUO
Diemen	29453	BUO
Dirksland	32031	BUO
Doesburg	28295	BUO
Oosterhout (Dongen)	29612	BUO
Dongen	28872	BUO

Municipality	Archis research notification number	Type of research
Medemblik (Drechterland)	31055	BUO
Noordoostpolder (Dronten)	30416	BUO
Duiven	30199	BUO
Eemsmond	31151	BUO
Eersel	29295	BUO
Elburg	33552	BUO
Enschede	27417	BUO
Heerde (Epe)	32563	BUO
Geertruidenberg	29279	BUO
Geertruidenberg	27971	BUO
Geertruidenberg	31321	BUO
Geldrop-Mierlo	26402	BUO
Geldrop-Mierlo	27384	BUO
Gemert-Bakel	28900	BUO
Giessenlanden	27586	BUO
Hilvarenbeek (Goirle)	31348	BUO
West Maas en Waal (Gorinchem)	28853	BUO
Gorinchem	29729	BUO
Gorinchem	28589	BUO
Haaksbergen	27847	BUO
Haaren	31784	BUO
Amsterdam (Haarlemmerliede c.a.)	31965	BUO
Amsterdam (Haarlemmerliede c.a.)	31484	BUO
Haarlemmerliede c.a.	39382	BUO
Haarlemmerliede c.a.	30924	BUO
Amsterdam (Haarlemmermeer)	38004	BUO
Aalsmeer (Haarlemmermeer)	29286	BUO
Harderwijk	28679	BUO
Haren	30375	BUO
Kampen (Hattem)	34537	BUO
Zwolle (Hattem)	26464	BUO
Heemskerk	28593	BUO
Heemstede	26904	BUO
Heerde	32621	BUO
Heerhugowaard	32492	BUO
Heerhugowaard	27486	BUO
Heerhugowaard	26454	BUO
Heerlen	33246	BUO
Heerlen	33247	BUO
Heerlen	33249	BUO
Heumen	31649	BUO
Heusden	30632	BUO
Bloemendaal (Hillegom)	26838	BUO
Hilvarenbeek	28787	BUO
Hengelo (Hof van Twente)	29354	BUO
Hollands Kroon	31241	BUO

Municipality	Archis research notification number	Type of research
Hoogeveen	32668	BUO
Kaag en Braassem	26135	BUO
Koggenland	31870	BUO
Koggenland	31517	BUO
Kollumerland c.a.	31440	BUO
Landsmeer	26465	BUO
Landsmeer	39411	BUO
Landsmeer	31458	BUO
Lansingerland	28486	BUO
Lansingerland	26461	BUO
Lansingerland	28759	BUO
Laren	31857	BUO
Leek	28869	BUO
Leek	28743	BUO
Lelystad	30197	BUO
Lelystad	27230	BUO
Leusden	28123	BUO
Leusden	31655	BUO
Leusden	28117	BUO
Liesveld	29656	BUO
Maasdonk	32315	BUO
Opsterland (Marum)	30553	BUO
Grootegast (Marum)	30555	BUO
Medemblik	27465	BUO
Medemblik	30590	BUO
Menterwolde	29719	BUO
Meppel	30800	BUO
Middelharnis	30900	BUO
Midden-Drenthe	27247	BUO
Mill en Sint Hubert	28646	BUO
Dordrecht (Moerdijk)	26901	BUO
Moerdijk	32068	BUO
Montfoort	27381	BUO
Montfoort	29014	BUO
Mook en Middelaar	30827	BUO
Amsterdam (Muiden)	29202	BUO
Naarden	30831	BUO
Naarden	28747	BUO
Neder-Betuwe	39468	BUO
Nieuwkoop	29051	BUO
Nieuwkoop	29406	BUO
Nijkerk	26749	BUO
Nijkerk	30578	BUO
Nijkerk	28150	BUO
Noord-Beveland	28945	BUO
Noord-Beveland	30395	BUO

Municipality	Archis research notification number	Type of research
Noordenveld	28892	BUO
Noordenveld	27308	BUO
Noordwijk	28661	BUO
Oirschot	28101	BUO
Oost Gelre	29339	BUO
Oude IJsselstreek	27967	BUO
Amsterdam (Ouder-Amstel)	32767	BUO
Amsterdam (Ouder-Amstel)	27036	BUO
Amsterdam (Ouder-Amstel)	31131	BUO
Ouderkerk	31931	BUO
Oudewater	32375	BUO
Peel en Maas	30696	BUO
Peel en Maas	31598	BUO
Pekela	32433	BUO
Pekela	31343	BUO
Pekela	31214	BUO
Pekela	31183	BUO
Purmerend	30380	BUO
Purmerend	30366	BUO
Reusel-De Mierden	28464	BUO
Rheden	28024	BUO
Rijnwaarden	29180	BUO
Rijssen-Holten	31404	BUO
Rozendaal	31679	BUO
Rozendaal	26294	BUO
Rozendaal	26296	BUO
Rucphen	32396	BUO
Zundert (Rucphen)	31503	BUO
Woudenberg (Scherpenzeel)	29149	BUO
Schouwen-Duiveland	31374	BUO
Simpelveld	30436	BUO
Sint-Michielsgestel	27127	BUO
Sint-Michielsgestel	27128	BUO
Sint-Michielsgestel	27126	BUO
Skarsterlan	31301	BUO
Sluis	27043	BUO
Sluis	27044	BUO
Smallingerland	29102	BUO
Soest	26892	BUO
Son en Breugel	27494	BUO
Stede Broec	30322	BUO
Stede Broec	29356	BUO
Steenbergen	26337	BUO
Terneuzen	32022	BUO
Terneuzen	30689	BUO
Texel	32990	BUO

Municipality	Archis research notification number	Type of research
Texel	30049	BUO
Texel	32991	BUO
Tilburg	29997	BUO
Twenterand	26937	BUO
Twenterand	31660	BUO
Twenterand	29099	BUO
Amstelveen (Uithoorn)	27734	BUO
Rhenen (Utrechtse Heuvelrug)	31987	BUO
Wijk bij Duurstede (Utrechtse Heuvelrug)	29351	BUO
Veenendaal (Utrechtse Heuvelrug)	30491	BUO
Utrechtse Heuvelrug	29700	BUO
Veenendaal	27223	BUO
Veere	27356	BUO
Veere	29818	BUO
Veldhoven	31425	BUO
Veldhoven	32198	BUO
Veldhoven	27193	BUO
Velsen	30861	BUO
Venlo	28060	BUO
Vlissingen	28827	BUO
Voorst	27171	BUO
Waalre	29495	BUO
Waalwijk	29767	BUO
Waddinxveen	27433	BUO
Almere (Waterland)	50808	BUO
Weert	31896	BUO
Westerveld	30896	BUO
Rijswijk (Westland)	28668	BUO
Westvoorne	26995	BUO
Wierden	32750	BUO
Wierden	26235	BUO
Wijk bij Duurstede	28288	BUO
Winterswijk	30588	BUO
Winterswijk	30589	BUO
Woensdrecht	32077	BUO
Woerden	26868	BUO
Wormerland	27640	BUO
Wormerland	29712	BUO
Woudenberg	31898	BUO
Woudenberg	32099	BUO
Zandvoort	30568	BUO
Zandvoort	29100	BUO
Lochem (Zevenaar)	29197	BUO
Den Helder (Zijpe)	26968	BUO
Zijpe	27916	BUO
Zoeterwoude	27330	BUO



Municipality	Archis research notification number	Type of research
Zundert	26110	BUO
Zundert	26109	BUO
Staphorst (Zwartewaterland)	31178	BUO
Zwijndrecht	30954	BUO
Zwolle	28816	BUO
Den Haag	30297	GEO
Geertruidenberg	31858	GEO
Leidschendam-Voorburg	30297	GEO
Aalburg	28834	PPS
Alblasserdam	27482	PPS
Albrandswaard	29516	PPS
Alphen-Chaam	26103	PPS
Amersfoort	28618	PPS
Amersfoort	27983	PPS
Asten	29274	PPS
Baarle--Nassau	32074	PPS
Best	26092	PPS
Bladel	30097	PPS
Hengelo (Borne)	25977	PPS
Boxtel	26718	PPS
Breda	29592	PPS
Helmond (Deurne)	27416	PPS
Diemen	28624	PPS
Duiven	28935	PPS
Echt-Susteren	31980	PPS
Eemnes	31150	PPS
Eersel	27047	PPS
Epe	27104	PPS
Etten-Leur	27378	PPS
Gennep	30114	PPS
Haarlemmerliede c.a.	26100	PPS
Heemskerk	29430	PPS
Heerhugowaard	31683	PPS
Heiloo	28620	PPS
Helmond	27416	PPS
Helmond	30686	PPS
Heumen	27499	PPS
Hollands Kroon	30357	PPS
Hoorn	31027	PPS
Kerkrade	30173	PPS
Laarbeek	27264	PPS
Landerd	30580	PPS
Heerlen (Landgraaf)	32182	PPS
Nijmegen (Lingewaard)	31247	PPS
Maasgouw	29296	PPS
Medemblik	28952	PPS

Municipality	Archis research notification number	Type of research
Menterwolde	27759	PPS
Menterwolde	27763	PPS
Mill en Sint Hubert	27822	PPS
Montfoort	26112	PPS
Mook en Middelaar	28572	PPS
Neerijnen	25791	PPS
Noord-Beveland	31228	PPS
Nuenen c.a.	29077	PPS
Nuth	28001	PPS
Oldenzaal	26884	PPS
Oostzaan	26416	PPS
Oud-Beijerland	29696	PPS
Oudewater	27571	PPS
Reusel-De Mierden	32076	PPS
Barneveld (Scherpenzeel)	28227	PPS
Simpelveld	31487	PPS
Spijkenisse	32437	PPS
Teylingen	28896	PPS
Valkenburg a/d Geul	29552	PPS
Valkenswaard	31156	PPS
Veere	27212	PPS
Veldhoven	30218	PPS
Venlo	29428	PPS
Vlaardingen	26122	PPS
Middelburg (Vlissingen)	29137	PPS
Voorschoten	28902	PPS
Weert	30065	PPS
Wijchen	32405	PPS
Woudrichem	29057	PPS
Zaanstad	26101	PPS
Zederik	26560	PPS
Zederik	30606	PPS
Zeist	30255	PPS
Zwijndrecht	30371	PPS
Zwolle	28923	PPS

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