THE FOOTPRINT
A FARMSTEAD LEAVES
“The footprint a farmstead leaves”

“Linking surface material to sub-surface archaeological findings”

Republican Farmsteads: Survey & Excavations,
Case-studies from central Italy, 6th - 1st century B.C.

Second version [August 2015]

Supervisor:
P.A.J. Attema

[Jord Hilbrants – S1685562]
“Live as if you were to die tomorrow. Learn as if you were to live forever.”

-Mahatma Gandhi-

I dedicate this thesis to those that supported me on the long way to knowledge. Without them it would never have seen the light of day:

My family
   Mom, Dad, Sven, Kjell and my grandparents (Hilbrants & Hendriks)

My (other) family
   Willy, Nico, Rosa, Marnix, Lennard and grandma van Faassen
   (Cooper, Morris & Duuk included)

My friends
   ...just check Facebook

My teachers, especially Peter Attema (my thesis supervisor)

And most importantly:
My Love, Susanne Corien Janine Manuel.
The girl who waited!
# Table of Contents

## Chapter 1: Introduction

1.1. Introduction......................................................................................................................... 1
1.2. Statement of the Problem...................................................................................................... 1
1.3. Methodology .......................................................................................................................... 2
  1.3.1. Republican Farmsteads as the Main Subject................................................................. 2
  1.3.2. Witcher’s site-class analysis ......................................................................................... 3
  1.3.3. The three stages of research ......................................................................................... 3
  1.3.4. The standardisation of data ......................................................................................... 4
  1.3.5. Chronological and Topographical framework ............................................................... 5
1.4. Research Questions................................................................................................................ 5
1.5. Structure of the thesis ........................................................................................................... 6

## Chapter 2: Analysis of site-classification systems

2.1. Introduction.......................................................................................................................... 7
2.2. Main research questions ....................................................................................................... 7
2.3. Method .................................................................................................................................. 8
  2.3.1. Witcher’s classificatory dichotomies ............................................................................. 8
  2.3.2. The data-set .................................................................................................................. 10
2.4. Analysis ................................................................................................................................ 11
  2.4.1. General analysis ........................................................................................................... 11
  2.4.2. Size and assemblage as site-characteristics ................................................................. 11
  2.4.3. Site-characteristics per site-type .................................................................................. 16
2.5. Conclusion ............................................................................................................................ 17
  2.5.1. Farmsteads and Villae in survey data ............................................................................. 17
  2.5.2. The influence of project based methodologies ............................................................... 19
  2.5.3. Addressing the research questions .............................................................................. 20
  2.5.4. The next step .............................................................................................................. 22

## Chapter 3: Analysis of excavated examples

3.1. Introduction........................................................................................................................... 23
3.1.1. General introduction ....................................................................................... 23
3.1.2. Main research questions .................................................................................. 23
3.2. Method .................................................................................................................. 24
   3.2.1. Adapting the system of van ‘t Lindenhout ..................................................... 24
   3.2.3. Introduction to the Ground-plan typology ..................................................... 26
   3.2.4. The Ground-plan types ............................................................................... 27
   3.2.5. The data-set ............................................................................................... 31
3.3. Analysis ............................................................................................................... 31
   3.3.1. Focus-Point #1 - General information on site or publication: ..................... 31
   3.3.2. Focus-Point #2 - Architectural ground plans: ............................................ 32
   3.3.3. Focus-Point #3 - Material evidence: ......................................................... 35
   3.3.4. Site-characteristics vs. site-types ............................................................... 38
3.4. Conclusion ........................................................................................................... 40
   3.4.1. Farmsteads and villae in excavation data .................................................. 40
   3.4.2. The influence of project based methodologies ......................................... 41
   3.4.3. Addressing the research questions .......................................................... 42
   3.4.4. The next step ........................................................................................... 43

Chapter 4: The Centocelle case-study

4.1. Introduction ......................................................................................................... 44
   4.1.1. General introduction ............................................................................... 44
   4.1.2. Main research questions ............................................................................. 44
   4.1.3. Introduction of the Centocelle-Project ..................................................... 45
   4.1.4. Methodologies implemented by the Centocelle-Project ......................... 45
4.2. Method ................................................................................................................ 46
   4.2.1. Data-collection in the Centocelle-Project ............................................... 46
   4.2.2. The three main investigative areas (introduction) ...................................... 46
   4.2.3. Surveying the Centocelle-plateau ............................................................ 47
   4.2.4. The Chi2-analysis .................................................................................... 48
4.3. Analysis ............................................................................................................... 49
   4.3.1. Verifying surface data (Unit #25 case-study) ............................................ 49
   4.3.2. Excavation results of the three main areas .............................................. 50
   4.3.3. Analysis of the spatial maps ................................................................... 54
4.4. Conclusion .......................................................................................................... 56
Chapter 5: Conclusion

5.1. Introduction ........................................................................................................................................... 61
  5.1.1. General introduction of the conclusion ................................................................................................. 61
  5.1.2. Survey outcomes & research questions ................................................................................................. 61
  5.1.3. Excavation outcomes & research questions .......................................................................................... 62
  5.1.4. Outcomes & research questions of the Centocelle case-study ............................................................. 62
5.2. The differences between survey and excavation ......................................................................................... 63
  5.2.1. Clear methodological differences .......................................................................................................... 63
  5.2.2. Differences in the handling of materials ................................................................................................. 63
  5.2.3. A true division visible between farm and villa ....................................................................................... 64
5.3. Comparability ........................................................................................................................................... 68
  5.3.1. The need for a comparative project ......................................................................................................... 68
  5.3.2. Standardisation as a solution .................................................................................................................. 69
5.4. Final thoughts ........................................................................................................................................... 71
  5.4.1. End remarks ........................................................................................................................................... 71
  5.4.2. Recommendations ............................................................................................................................... 72
  5.4.3. Further research (a possibility) ............................................................................................................. 72

Bibliography .................................................................................................................................................. 74
Chapter 1: Introduction

1.1. Introduction

Archaeology literally means “the study of ancient things” (Darvill 2008, 22), but can be described in broad operational terms as the study of past human societies and their environments through the analysis of their material culture or physical remains. By a systematic recovery, recording and analysis of classified archaeological materials, scientists obtain an insight into past developments. In general, this collection of archaeological data can be done on two levels: either by (A) investigating the sub-surface archaeological remains (through an excavation of a certain area), or (B) conducting an inventory of the materials found in the ploughsoil (i.e. a surface investigation by means of survey-projects).

Although the methodologies were initially intended to complement each other directly (with field surveys as a site-location tool for suitable excavation areas; Alcock and Cherry 2000, 3), they seem to have gone in quite different directions. Whereas excavation supplies the archaeologist with detailed information on a small area (with full chronological order), field survey generates data on larger processes of human impact on the natural landscape (e.g. urbanization and ruralisation; Yntema 2008). This difference in scope between the two fields of methodology (local vs. regional) has eventually led to a different way of dealing with archaeological remains.

1.2. Statement of the Problem

Even despite this inequality of data, most researchers still readily incorporate the results of both methodologies into their synthesis (as stated by: Mattingly 2000, 5; Bintliff & Sbonias 2000, 243). Either by using data from an earlier (field) survey in the area to reconstruct the surroundings of an excavated site, or by placing a handful of test-trenches on the sites encountered during a large survey (i.e. verification by the spade). Separately, both discourses have seen discussions on (work)methodology and the nature of their results (e.g. surface collection strategies, ceramic visibility and durability factors). A theoretical background for combining the results from both methodologies is however still lacking (Bogucki & Crabtree 2004, 29).

Many archaeological theory conferences and review publications (e.g. Populus - Barker & Mattingly 1999-2000) have discussed the status quo of landscape archaeology, and touched on the question of an assumed relationship between the material in the ploughsoil and that in underlying deposits (surface vs. sub-surface; Schörner 2012, 32). In essence, too little attention has been paid to the bigger issues, like the growing

---

1 A detailed overview of the methodology of survey archaeology and its development can be found in attachments Pt. A-I: ‘Survey Methodology: An Introduction’; pp.1-3).
2 Also labelled as “Shovel-testing” (Collins & Molyneaux 2003, 63).
3 Some of the issues raised by these conferences and publications, e.g. the definition of the term ‘site’, are included in attachments Pt. A-II: ‘Post-deposition and Methodological Problems’ (pp.4-7).
necessity of achieving greater standardisation of data-sets (and working towards a standardised terminology).\(^4\) Scholars should therefore first question the correlation between the two methodologies, i.e. is the material collected from surveys directly comparable to material collected in an excavation, before combining their results. Unfortunately, only few projects have systematically and thoroughly investigated this correlation.

Two exemplary projects are: the Centocelle Project (Camilli & Gioia 2004) and the “100 Roman Farms”-project of the Forum-UNESCO initiative (Ewel & Taylor 2010). The Centocelle project combined a range of both invasive and non-invasive methods to investigate a Republican / Imperial Roman rural landscape. The outcomes of the project have been published in detail and will be used as a comparative case-study later on in this thesis (Chapter 4). The other promising project of the Forum-UNESCO initiative started in 2005. By combining both pedological survey and selected excavation, it was aimed to: \((A)\) provide a more precise date-range of the building (by recovering a greater amount of pottery), and \((B)\) formulate a more detailed idea on status and function of the site (from the excavated remains).\(^5\)

The above mentioned projects have successfully combined and compared their survey and excavation findings within their methodology. This led to the idea of a re-assessment and standardisation of the survey and excavation data from different projects, in order to make them ready for a comparison. By addressing one specific site-class from one specific period of time, this method will be tested throughout this research masters’ thesis.

1.3. Methodology

1.3.1. Republican Farmsteads as the Main Subject

When questioning comparability between surface and sub-surface finds from different contexts, one could easily get lost in a jungle of methodological and theoretical terminology. For this thesis I therefore chose to approach the problem from a more practical side: by comparing a series of case-studies, investigated through both excavation and survey methods. This desk-based analysis can in general terms be considered as a (critical) assessment of the comparability of both data-sets. It attempts to re-assess the terminology and expected archaeological remnants of a specific site-type: Republican farmsteads.

This class represents one of the major points of discussion in both excavation and survey archaeology (in the Mediterranean). Although the literate Roman elite have left their fair share of evidence (both in literature and monuments), the life of a Roman (rural) peasant is almost unknown. This is quite unfortunate, as it is estimated that peasants formed the largest social group of the Roman Republican society (90%; Bowes et al. 2011, 1). In addition to the historical data, archaeology has also not yet provided a clear image of these peasants. Part of this is to blame on the lack of interest into ‘low status’ sites like rural farmsteads, which has taken hold of archaeological practice. In the past, most archaeologists focused on investigating the rich villa sites, ignoring the humble rural farmsteads (\textit{ibid.}, 1). Even though (systematic) field-surveys had revealed their ar-

---

\(^4\) Barker & Mattingly (2000, III) even stated that this would eventually hamper the maturing field of research (especially survey archaeology).

\(^5\) Further information on the project can be found on: http://www.provincia.lucca.it/unesco/100fattorie.asp.
chaeological presence “at every turn” (Ibid., 2-3), these sites were only rarely selected for further research and excavation.

1.3.2. Witcher’s site-class analysis
On a methodological level this thesis builds primarily upon the work of Witcher. His JRA article “That from a long way off look like farms: the Classification of Roman rural sites” (2012), presented a comparison of the classification of Roman rural settlements used in different fieldwork projects. The aim of his paper was to summarize the ways in which regional (field) surveys have classified rural surface scatters, as well as to consider on why and how these categories are used by archaeologists. In this process Witcher contemplates the issue of site-classification. In his eyes, this included a consideration of both the possibility of survey-data comparison, and the relationship between surface and sub-surface evidence. He saw this as a useful starting point for the consideration of current site-categorisation, which encourages deconstruction as an initial step to evaluating current practice and considering alternatives (Ibid., 11).

The selection of the sources seems to be based on their correspondence with the view of the archaeologist himself: adopting what corresponded, discarding what did not. Witcher found that although most archaeological researchers claim they intuitively know what a villa or farmstead was, they all encounter problems in assigning specific attributes and variables during the process of eventual identification. When relying primarily on material evidence the site category is trying to capture a very dynamic phenomenon that has existed over almost half a millennium in one single definition (in terms of size, architecture styles, scale of consumption, epigraphic habits and economical function; Percival 1976, 13; Witcher 2012, 14-16).

Additionally, Witcher’s analysis showed that ‘Theory and Methodology’ seem to be the distinguishing factors (a fact earlier stated by Adams and Adams, 1991). A site-category is therefore only as meaningful as the (research) question it has to answer; dependent on the attributes we choose to prioritize (Witcher 2012, 14-16). Site-classes and types implemented by scholars are therefore quite fluid in nature, dependent on the research aims of the archaeologists. The methodology behind the project and site-classification system should therefore be under heavy scrutiny.

1.3.3. The three stages of research
In his article, Witcher intended to approach the relationship between surface and sub-surface finds, by comparing different site-classification systems. In this process he tried to pinpoint the specific characteristics used to define a site. This thesis tries to complement his work by executing a similar approach, but adding two additional dimensions: a similar analysis of excavated examples and a review of a comparative project (which already successfully integrated both survey and excavation in one project). This subdivision in general themes (i.e. survey, excavation and comparative project), led to the development of a tripartite method:

---

6 Journal of Roman Archaeology.
7 From: South Etruria, Biferno valley, Liri valley, San Giovanni, Northern Campania, Albegna valley & Rieti Basin.
‘Stage 1’ is a review of a selection of survey site classifications\(^8\) used by a variety of archaeological projects. After a re-assessment of the underlying research methodologies for each individual project, in combination with a standardisation of terminology, the dataset leads to a general site classification used throughout survey practices. ‘Stage 2’ will provide a similar assessment as in the above mentioned chapter, but for excavated examples of both farmsteads and villae. A generalised site-classification system is again presented as an end result. ‘Stage 3’ will provide information of a more methodological nature, as it will discuss the Centocelle Project (Camilli & Gioia 2004). This single case-study combines a range of both invasive and non-invasive methods\(^9\) to investigate a Republican / Imperial Roman rural landscape. The project thereby clearly illustrates how survey can complement an excavation (and vice versa), but also how different methodologies can lead to surprisingly different results. This last part will therefore take into account the different aspects and site-characteristics encountered during stage (1) and (2), comparing them in one case-study. Based on the combined data-set of these three stages, the thesis aims to come to a general site-classification method (applicable in both survey and excavation-projects).

1.3.4. The standardisation of data

In order to come to a single classification-scheme (consisting of observable or distinguishing characteristics per defined artefact scatter), the included site-classifications should be reduced to a series of simple conceptual categories. The standardisation of the published data is therefore a grave necessity. The description of the cases will take the shape of a formal analysis, describing the overall shape of the material scatter and underlying methodology as objectively as possible and in as much detail as possible. Per site (and publication) will be noted what kind of material was collected, how it was interpreted and how it can be used in the comparison (table 2, p.5), mentions the different aspects that will be noted in the initial phase of this project). By using this diachronical assessment of the archaeological evidence, which includes variations in both ground plans of buildings and material culture, a number of physical characteristics per site-type should become apparent.

---

\(^8\) For a philosophical debate on the use of the terms “classification” and “typology”, see attachments Pt. A-III: ‘Classification vs. Typology’ (pp.8-9).

\(^9\) E.g. historical data, air-photography, geographical charts, geophysical research, survey archaeology, test-trenches and excavation.
1.3.5. Chronological and Topographical framework

On a chronological level, this thesis was intended to include research projects focusing on the 6th - 1st century (i.e. Roman Republic). As it is generally presumed that this period shows the greatest developments in rural farmsteads (Whitelaw 2000), it was the perfect timeframe to maintain this research project. Unfortunately, a thorough bibliographical search revealed that the number of excavated examples falling within this time-period was quite limited. It was therefore decided to broaden my perimeters both in time and space (extending my search into examples spanning the imperial periods, from the whole of Roman Italy). The case-studies were collected from a variety of sources: Notizie degli Scavi, Lazio e Sabina, Fasti-Online (www.fastionline.org)\textsuperscript{10}, and of course the Centocelle-project. Additionally, G. Cifani’s publication of typological differences in farmsteads from Etruria (Cifani 2008) helped in the interpretation of the material found on the Republican sites discussed throughout this thesis.

1.4. Research Questions

Based on the ‘Statement of the Problem’ (§2) and methodological outline of the thesis (§3), the following main research question can be distilled: “Are survey-data and excavation-data a priori comparable in nature?”. Through a range of accompanying sub-questions (included in the table #1; p.6), insight can be gained into the comparability of both data-sets. Based on the main subject of the research questions, they can be subdivided into: (i) survey-related, (ii) excavation-related, (iii) based on the Centocelle case-study. The first two parts follow the method of Witcher, listing the most commonly used site-characteristics in relation to the included project aims. The third part is of a more theoretical nature, assessing the comparability of both data-sets in a single research project and additionally commenting on the usefulness of such an overarching approach.

\textsuperscript{10} A set of sources that provided short, but detailed reports on both recent and older excavated sites. This included not only the archaeological material uncovered on site, but also insight into project-methodologies.
<table>
<thead>
<tr>
<th>Part</th>
<th>Nr.</th>
<th>Research Question</th>
<th>Keywords</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main</td>
<td>(*)</td>
<td>“Are survey-data and excavation-data a priori compatible in nature: e.g. is a ‘farm’ a ‘farm’ in both contexts?”</td>
<td>[“farm” / “villa-classes”]</td>
<td>(*)</td>
</tr>
<tr>
<td>I. Surveys</td>
<td>(i)</td>
<td>“How are Republican ‘farmsteads’ and ‘villae’ defined in survey classification systems (i.e. most commonly used site-characteristics)?”</td>
<td>[Site-characteristics]</td>
<td>Ch.2</td>
</tr>
<tr>
<td></td>
<td>(ii)</td>
<td>“How do survey methodologies and project-specific aims colour the way in which site-classes are perceived?”</td>
<td>[Project aims]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(iii)</td>
<td>“Can a generalized site-classification (covering all possible survey projects) even considered to be a valid idea?”</td>
<td>[Generalised classes]</td>
<td></td>
</tr>
<tr>
<td>II. Excavations</td>
<td>(iv)</td>
<td>“How are Republican ‘farmsteads’ and ‘villae’ defined in archaeological excavations (i.e. most commonly used site-characteristics)?”</td>
<td>[Site-characteristics]</td>
<td>Ch.3</td>
</tr>
<tr>
<td></td>
<td>(v)</td>
<td>“How do excavation methodologies and project-specific aims colour the way in which site-classes are provided to excavated examples?”</td>
<td>[Project aims]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(vi)</td>
<td>“Can a generalized site-classification (covering all possible excavated examples) even considered to be a valid idea?”</td>
<td>[Generalised classes]</td>
<td></td>
</tr>
<tr>
<td>III. Centocelle</td>
<td>(vii)</td>
<td>“Is the evidence from both methodologies (survey / excavation) comparable in the case of Centocelle?”</td>
<td>[Excavation vs. Survey]</td>
<td>Ch.4</td>
</tr>
<tr>
<td></td>
<td>(viii)</td>
<td>“Are these site-definitions comparable to the ones defined in the survey-chapter (chapter 2) of this thesis?”</td>
<td>[Chapter 2 – comparison]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(ix)</td>
<td>“Are these site-definitions comparable to the ones defined in the excavation-chapter (chapter 3) of this thesis?”</td>
<td>[Chapter 3 – comparison]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(x)</td>
<td>“What are the connotations / possibilities of such an integrated methodology?”</td>
<td>[Integrated method]</td>
<td></td>
</tr>
</tbody>
</table>

| Table #1: A list of the main and sub-questions related to this thesis. |

1.5. Structure of the thesis

This thesis consists of five chapters. The first chapter, this introduction, has given an overview of the research questions and underlying problems addressed throughout the thesis. In addition, it also provided a general framework for the research methodology, together with some background information on specific aspects that should be kept in mind whilst reading the rest of the chapters.

Chapter 2 to 4 focus on the three main parts of my research. Survey projects and their classification systems will be discussed in the second chapter. This will consist of an introduction in the different projects, together with their different work methods. After the analysis, the data provided by the projects will lead to a general site-class typology. The third chapter will follow a similar scheme, but then using excavated examples of ‘farmsteads’ and ‘villae’. Based on these cases a better understanding is gained on how site-interpretations are formed during excavation projects (as well as the corresponding site-characteristics they are based on). After this, the fourth chapter will combine both methods in in one context: the ‘Centocelle-project’. This case provides the opportunity to compare the outcome of both methods one-on-one, and give insight into the advantages of such a ‘comparative-project’.

The final and fifth chapter will summarise the results from all previous chapters and will address the main question of surface to sub-surface compatibility. In addition, it will also reflect on the thesis as a whole and provide possible recommendations to address the problems as stated in this thesis for future research.
Chapter 2:
Analysis of site-classification systems

2.1. Introduction
This chapter will discuss the manner in which Republican rural sites (e.g. Farmsteads or Villae) are generally perceived in archaeological (field) survey projects. After the processes of material collection, object description and find classification, a reconstruction is made of the past activities in the examined area. Through applying specific site-classifications (comparable to typological taxonomies), individual material scatters (or assemblages) can be interpreted as specific site-types.

As we have seen in the introduction chapter, classification is critical to every scale of analysis: “from artefacts and stratigraphical layers to sites and landscapes” (Witcher 2012, 11). It is therefore impossible to move directly from empirical observations made in the field to more general interpretations on a landscape-development level. Although scholars have acknowledged this issue, most theoretical articles are still concerned with the typological classification of (individual) artefacts and artefact types. True critical studies of archaeological (field) techniques, methodologies, and the philosophy behind them (which include the re-evaluation of site-classification systems and its issues) are relatively rare (see Witcher 2012, 24; Attema, De Haas & La Rosa 2003/2004, 127-128).

In the few publications that do address the problems of site-classification, the emphasis has primarily been on a proposed refinement of site-attributes and variables. They are aimed at an improvement of the accuracy with which surface scatters can be classified (Witcher 2012, 16). Limited consideration was given to the motives behind the site-classes: “What is the signature of a farm?” was seen as a more important question than “Is farm even an appropriate term?”. Within this mentality lies the risk of site-categories becoming a value-free classification, leading to general types being recycled into new interpretations, without any consideration for their purpose or origin (Ibid., 14). This issue has become even more important over the years due to the growing significance of legacy data in archaeological projects, and now demands a comparative approach. A broader assessment of site-typology as a whole is therefore a necessary step. The analysis brought forth in this chapter is therefore designed to provide the most common and readily excepted site-classification typology for these rural sites.

2.2. Main research questions
In accordance to the above mentioned issues, this chapter will focus on the research questions related to the archaeological site-classifications as applied in (published) survey projects. By comparing the individual site-classes from a set of these projects, this chapter tries to provide an exact definition of the rural site classes. The main question is therefore defined as follows: (i) “How are Republican ‘farmsteads’ and ‘villae’ defined in survey classification systems (i.e. most commonly used site-characteristics)?”. This question deals directly with the
archaeological material encountered on the surveyed sites. Following the work of Carandini, Carafa and Capanna (2007, 20) three aspects are considered as main points of interest: (1) the presence / absence of building material or decorative elements (indicating functionality and social status), (2) the differences in the extent of the artefact concentrations (scatter-size), and (3) the differences in the location and ceramic composition of the archaeological contexts (material assemblage and find densities).

A more theoretical question is how these site-classification systems are influenced by methodological choices made by the archaeological investigators: (iii) "How do survey methodologies and project-specific aims colour the way in which site-classes are perceived?". Both the research questions and project aims influence not only what is collected during an archaeological project, but also how it is interpreted. An overview of their influences is therefore essential.

The final research question considers whether a generalized site-classification, applicable to all survey projects, is even valid: (iii) "Can a generalized site-classification (covering all possible survey projects) even considered to be a valid idea?". By comparing the individual survey-projects it will become clear if the site-classes are similar enough for such a generalised scheme to work (i.e. is there a ‘natural’ division of site-classes), or if they are simply too different to be compared.

2.3. Method

2.3.1. Witcher’s classificatory dichotomies
Classification methods and site-typologies can differ considerably from project to project, making a direct comparison between the projects (almost) impossible. They can be either based on quantitative (scatter-size and material density) or qualitative (the presence of certain materials) characteristics. A Republican house could, for instance, be defined as (A) a simple pottery scatter of app. 600 m² (quantitative), or (B) a material assemblage of a combination of building material, cooking ware and weaving equipment (qualitative).

To address the variation in site defining characteristics between different site-classification systems Witcher presented a short list of classificatory dichotomies (Witcher 2012, 19). In a way, this list provides a way to systematically deconstruct the individual site-classification systems, in order to understand how the interpretation of survey projects is shaped. Witcher called this an "ethnography of archaeological classification" (i.e. to understand the origins of types), an essential step in determining if the use of the site-type is appropriate (Ibid., 11). The dichotomies also provided the possibility to compare the site-classification systems one-to-one.

The list of classificatory dichotomies (or site-category-traits) as deduced from Witcher’s 2012 article is quite useful when analysing this difference. The setup of his list of traits is however much too broad for the intended analysis of site-categories in this thesis. A selection was therefore made, in order to end up with a clear list of definable and analysable site-characteristics (Table 3), which can be subdivided into three distinct subject groups following the research questions of this chapter: (A) the general applicability of the site-classes, (B) scatter-sizes, and (C) material assemblages.

The first group, (A), includes aspects questioning the generality of the site-classes used in the individual survey projects (dichotomies i till iii). By listing this feature per case, insight can be gained in both the com-
parability of the individual classification systems, as the usefulness and validity of one generalised site-classification system for all (Republican rural) survey projects.

The second group, \((B)\), deals with the aspect of scatter-size, an aspect that is defined in most archaeological survey projects and methodologies (dichotomies \((iv)^{11}\) till \((vi)\)). Listing these per incorporated survey project will provide insight into the quantitative aspect of site-definition (mentioning both material density and range).

The third and final group, \((C)\), discusses the functional interpretation of a site by mentioning the material assemblage encountered in the field (dichotomies \((vii)\) and \((viii)\)). This will make clear which material objects and classes are seen as distinctive per site-type.

In essence, these three definitive questions related to the incorporated site-classifications will be used as a guideline to compare the methodological backgrounds of the included cases during the analysis. They will provide insight into the general setup of classification systems dealing with Republican rural site-types, as well as provide the data for a ‘most fitting’ site-classification system.

<table>
<thead>
<tr>
<th>Group</th>
<th>Nr.</th>
<th>Classificatory dichotomy</th>
<th>Keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>(i)</td>
<td>“Are unitary site-classes (“villa”) or sub-groups (“farm / villa”) used?”</td>
<td>[Unitary site-classes]</td>
</tr>
<tr>
<td>A</td>
<td>(ii)</td>
<td>“Are the site-classes ‘emic’ (internal, or culturally meaningful to the past society: “villa”; often historical based) or ‘etic’ (external, imposed by modern day societal definitions: “large production centre”) in nature?”</td>
<td>['Emic’ / ‘Etic’-classes]</td>
</tr>
<tr>
<td>A</td>
<td>(iii)</td>
<td>“Are the site-categories strictly predefined (e.g. globally applicable) or local in nature (e.g. dependent on observed variability in datasets)?”</td>
<td>[Predefined / Local]</td>
</tr>
<tr>
<td>B</td>
<td>(iv)</td>
<td>“Is scatter-size incorporated in ‘Site-interpretation’-class?”</td>
<td>[Size incorporation]</td>
</tr>
<tr>
<td>B</td>
<td>(v)</td>
<td>“Are the quantitative scatter-size parameters absolute (i.e. &lt; 400 m2) or relative (i.e. small)?”</td>
<td>[Size absolute / relative]</td>
</tr>
<tr>
<td>B</td>
<td>(vi)</td>
<td>“Does the scatter-size have overlap in classes or is it placed in continuous groups?”</td>
<td>[Size overlap / continuous]</td>
</tr>
<tr>
<td>C</td>
<td>(vii)</td>
<td>“Is the material evidence defined descriptive (i.e. predominance of amphorae/dolia) or interpretative (i.e. a storage site)?”</td>
<td>[Descriptive / interpretative]</td>
</tr>
<tr>
<td>C</td>
<td>(viii)</td>
<td>“Are the qualitative material attributes (i.e. specific material assemblages) used in an absolute (i.e. &lt; 10% fine-ware) or relative (i.e. low amount of fine-ware) way?”</td>
<td>[Mats. absolute / relative]</td>
</tr>
</tbody>
</table>

\[11\] This dichotomy has been added by me in order to support the other dichotomies on scatter-size.

Table 3: A table listing the dichotomies included in the analysis, used to describe the characteristics of the discussed site-classification systems. A summary of the main results per classification system can be found in the attachments (Pt. B-IV: table 20-21, pp.50-51).
2.3.2. The data-set

A series of fieldwork-projects forms the base of the analysis, and gives insight in both site-classification systems as well as underlying methodological questions. In total sixteen individual site-classification systems from eleven different projects (or methodological comparative studies) were selected.\(^{12}\) The project-descriptions that list the general methodology and research aims are included in the attachments (Pt. B-II: ‘Introduction of the incorporated Projects’; pp.12-33). The projects were selected on the basis of their detailed description of the classification system (attachments Pt. B-III: ‘Site-classification Tables’; pp.34-48), their geographical scope (dealing with surveys in either central or southern Italy; figure 1), and their chronological timeframe (the Republican Period; i.e. mid-sixth century B.C. to the mid-first century B.C.). The selection-criteria for the case-studies was intentionally kept quite broad, as the initial stages of the project have already shown that the availability of suitable projects for the analysis was not particularly high. The chosen setup would then provide the largest possible data-set.

The cases present both the methodologies devised at the beginning of a survey-campaign (i.e. single classification systems), as well as later reflections on the implemented methods and criteria in methodological comparison studies. Conclusions will be drawn on the data provided by the projects, and references will be made to the parts of particular interest.

\(^{12}\) Cases per region: Tuscany (7x), Marche (1x), Lazio (11x), Molise (1x), Campania (2x), and Basilicata (1x).
2.4. Analysis

2.4.1. General analysis

In this part of the chapter the information on the different site-classes from the individual site-classification systems will be analysed collectively. By compiling the information in an Access-database, the variety in class-labels could be compared side-by-side. This provides insight into the aspects that are used as primary indicators for specific site-classes.

The first aspect to be discussed is related to the (A)-group of the selected dichotomies (i till iii). These discuss both the comparability of the individual classification systems, as well as the usefulness and validity of one ‘generalised site-classification system’ to be used in future research. Central to this discussion is the influence of historical sources on the development of site-classification systems, and particularly the (historically laden) site-descriptions provided by ancient writers from the Roman world. In total, about 60% of the included case-studies implemented historically laden (etic) site-labels (see attachments Pt. B-V: graph 2, p.53).

In his 2012 article, Witcher came to a similar conclusion. He describes an archaeological practice in which certain surveyors based their site-interpretations directly on the works of historical writers: either by quoting Cicero and Pliny the Younger (villae as aristocratic palaces), or Cato and Varro (villae as socio-economical centres; Witcher 2012, 14-16). The site-labels scholars select from these ancient sources seem to be directly related to their research aims (and theoretical reasoning). The archaeologists adopted what corresponded to their view, and discarded what did not (Ibid., 14-16).

The only problem is that not all archaeological surveyors properly formulate (or discuss in the eventual publication) the site-classes that they use. This makes it difficult to understand the reasoning behind the different methodologies. To accommodate this discussion, van Leusen defined two classificatory groups in his PhD-thesis (2002): based either on (A) ‘historical’ or (B) ‘empirical’ approaches (see attachments Pt. B-II: Project #4; p.21-22).

The use of (inappropriate) historical texts and idealized site-types has however become a point of debate, already since there first implementation in the 1970’s (Witcher 2012; attachment Pt. B-II: Project #1; pp.15-16). Scholars worked towards a way of making the site-interpretations at least partially ‘objective’. The surveyors are meant to simply describe what is encountered in the field, without immediately connecting them to historically laden site-types. This development is supported by the outcomes of my analysis. Most of the classification systems included within the data-set seem to use a unitary site-classification (i.e. singular site-labels; 66%) of an etic-nature (60%; see attachments Pt. B-V: graphs 1-2, p.53).

2.4.2. Size and assemblage as site-characteristics

In an effort to move beyond the classification provided by ancient sources, which mainly differentiate between ‘small scale peasant farms’ and ‘large scale slave-staffed estates’, we can follow in the footsteps of Rathbone (2008, 305-306). He advises scholars to use more objective means to classify the data. This is a necessity if we want to use archaeological survey data as an independent means to analyse the (landscape) development. To accomplish this, a whole array of site-characteristics should be reviewed, which could provide the variables to establish a functional hypothesis about a given archaeological site (Guldager Bilde et al. 2012, 34). Based on the
analysis of the dataset, in combination with the work of Carandini, Carafa and Capanna (2007, 20; already discussed on page 12 of this thesis), the case-studies brought forth two distinctive site-characteristics: (A) scatter-size and (B) material assemblage.

**A Scatter-size**

One of the most commonly used criteria in site classifications is site-size (dichotomies iv - vi), not least because it is a directly recordable characteristic in the field. The defined size-classes however differ immensely per classification-system (mentioning either material density, range, or both). It is therefore important to understand the reasoning behind the use of quantitative data (Fulminante 2008, 220).

Looking at the data-set we can see that most of the sites included in this thesis consisted primarily of a ‘large quantities of building material’, accompanied by an estimate scatter-size. This means that the material scatters encountered in the field were clear enough to provide a rough quantification. A divide can however be seen in the way the scholars appoint a terminology to these scatters. Some immediately order the scatter-sizes in readily available, and mainly historically laden, site-classes. An example of this is the classification system discussed by Potter (1979). In the included site-classes a strict division is directly apparent from the scatter-size (without any overlap), labelling them as either farm or villa. Such classification systems thus follow the notion that classificatory ‘thresholds’ between the site-types are immediately obvious in the field (Rathbone 2008; attachments Pt. B-II: Project #2; pp.16-17).

Other scholars, like de Haas (2011), implement a different method. They initially define the site’s size, couple this with the encountered assemblage, and only then providing them with the most suitable site-labels. De Haas (2011), for example, differentiates four size-groups: very small (< 0.051 ha), small (0.051 - 0.2 ha), medium (0.21 – 0.5 ha) and large (> 0.5 ha; see attachments Pt. B-III: table 16, p.45). Only after the site is ranked, and the material located on it is analysed, the functional interpretation is given (i.e. farmstead or villa). The site-ranges provided by such site-classification systems are more generalised (and in a way more objective).

A very small percentage of the incorporated classification systems (16%; see attachments Pt. B-V: graph 3, p.53) completely rejects the quantitative-criterion as a site-characteristic. Arthur (1991), for example, does not mention a scatter-size but bases his site-interpretation solely on a (very specific) material assemblage (see attachments Pt. B-III: table 7, p.39).

Based on the above mentioned characteristics, a generalised definition of the scatter-size for the individual site-types could be given (Figure 2; Table 3). This new system includes a dualistic approach when it comes to size-classification: whilst the site-classes have absolute size-ranges, they are sub-divided in each type into relative size groups. Farmsteads, for instance, range from 100 > < 2,500 m², but are sub-divided into two relative size-groups: medium and large. Sites labelled as villae range from 1,000 > < 10,000 m², sub-divided into three relative size-groups: small, medium and large.

Although this approach leads to an overlap in size-ranges between the two site-classes (i.e. between 1,000 – 2,500 m²), it provides at least a preliminary partial site-interpretation. Unfortunately, this overlap in
size-classes also inherently means that the ‘scatter-size’ is not a type-defining aspect (at least not on its own). A similar conclusion was already drawn by Rathbone (2008, 329), when he mentioned that: "the reasoning behind a basic distinction of site-types by use of scatter-size is flawed, as both the written sources and excavation reports reveal a very broad spectrum of sizes and ground plans." We should therefore move towards the second point of investigation (material assemblage) to determine if that aspect is more type-specific.

**Figure 2**: Box-plots listing the dimensions of the (surface) scatters of the (A) "House"-type, (B) "Farmstead"-type (Above), and (C) "Villa"-type (Below). The data used for this analysis was gained by comparing all the individual scatter-size definitions as provided by the project-descriptions. More detailed overviews are given in the attachments (Pt. B-VI: ‘Scatters-size Graphs’, pp.54-57).

**Table 3**: A table listing the general size-classes per site-type as defined from the size-graphs (7, 10 and 12) included in the attachments (Pt. B-VI; pp.54-57). The division in size-classes was inspired by the work of De Haas (2011).
(B) Material assemblage

The second criterion used in most (if not all) site-classifications is a site specific material assemblage (i.e. the functional interpretation of site; dichotomies iv - vi). The definition of the material assemblages however differs immensely per classification-system (mentioning either material classes or functional object groups). It is therefore important to understand the reasoning behind the use of qualitative data (Fulminante 2008, 220). An overview of the implemented criteria per classification system will make clear which material objects and classes are seen as distinctive per site-type (Figure 3; Table 4).

The most prominent way of interpreting a material assemblage encountered during a survey project is to arrange the material objects in functional-groups: cooking, storage, transport, table-ware, utilities, simple architecture, elaborate architecture and manufacturing (based on: De Haas 2011, 27). The clearest example of such an implementation can be found in project #10.1 (based on the PhD-thesis of De Haas; see attachments Pt. B-II, pp.29-31). This site classification system is based on an empirical approach to site-typology, in which the site interpretation relies directly on the archaeological material collected in the field (Ibid., 28)\(^\text{13}\). Through an analysis of the functional object groups, insight is gained on the overall site’s assemblage. The fact that none of the site-classes have very strict material assemblages reflects the overall empirical nature of most classification-schemes.

Looking at the data-set we can see that most (66%) of the cases included in this thesis already use such descriptive material labels in their encountered assemblages\(^\text{14}\) (i.e. mentioning a predominance of amphorae / dolia; see attachments Pt. B-V: graph 5, p.53). This setup improves the comparable nature of the data-set (and is much more fitting than the rather restricted use of more generalised interpretative assemblage terminology, i.e. storage / production site). Based on this data, the individual case-studies made it possible to determine which features or aspects are more commonly used to identify a particular site-type. Throughout the thesis I will call these: primary (i.e. an essential indicator) and secondary class-indicators (i.e. optional, mentioned by only a handful of survey projects). They combine both specific descriptive material classes (e.g. amphorae, dolia) with general functional interpretations (e.g storage-ware, cooking-ware).

Together, these characteristics led to a ‘natural’ division of site-classes. In general a Villa is seen as having a much greater diversity of (building) materials, which is indicative for luxurious accommodation, whilst the simpler rural structures (farmstead and houses) are mainly characterised by the presence of storage wares and domestic craft indicators.

\(^{13}\) A method long used in the Pontine Region by the GIA during their field-projects.

\(^{14}\) Two-third of the cases is ‘descriptive’ in nature, only two examples strictly ‘interpretative’.
Figure 3: Pie-charts visualising the percentages of type-specific material assemblages of the (A) “House”-type, (B) “Farmstead”-type (Above), and (C) “Villa”-type (Below). The "main" material find classes are labelled with a ‘(*)’ in the legend. The colour-ranges represent the general material classes: ‘Simple Building Material’ (Blue), ‘Luxurious Building Material’ (Red), ‘Pottery Types’ (Green), and ‘Additional Materials’ (Purple). The data included within the graphs was collected from the histograms included in the attachments (Pt. B-VII: ‘Material Classification Graphs’; pp.58-61).

Table 4: A table listing the general material assemblages per site-type: both functional-classes (bold) and specific materials (italic). The data included within the graphs was collected from the histograms included in the attachments (Pt. B-VII: ‘Material Classification Graphs’; pp.58-61).
2.4.3. Site-characteristics per site-type

Based on the outcomes of the discussed dichotomies\textsuperscript{15}, a set of generalised site-class descriptions could be defined. This gives insight into both the primary and secondary\textsuperscript{16} indicators for each site-type, and shows similarities (or differences) between the discussed site-typologies. As not all of the included site-classes were essential for this thesis’ research questions, only a selection will be discussed here in the main text, representing the generalised site-classes that are central to this thesis: (A) House, (D) Farmstead, (F) Villa. The complete description of all other site-classes is included in the attachments (Pt. B-VIII: ‘Site-characteristics per Site-type’; pp.63-66).

(A) House:

House-type sites are mentioned in nine of the sixteen classification systems. Some scholars base their interpretation solely on scatter-size differences (Carandini 2002; Perkins 1999a-b), but most (75%) of the cases provide both size-estimates and material assemblages. Based on their site-definitions, the site-type can be subdivided into three distinct size-groups (see attachments Pt. B-VI: graph 7; p.55): \(< 250 \text{ m}^2 \) (small), \(250 > < 1,200 \text{ m}^2\) (medium) and \(1,200 > < 2,500 \text{ m}^2\) (large). The material assemblage related to the site-class consists primarily of (see attachments Pt. B-VII: graph 14; p.59): building materials (floor / roof tiles) and a simple pottery scatter (not specified into specific ceramic-types). In some of the classification systems this is supplemented by a presence of household production material (e.g. grinding stone, loom weight and slag) and storage wares (pithoi).

Based on the evidence, a house should thus be interpreted as: a simple material scatter of varying size, comprised mainly of simple building material and ceramics, with secondary indicators of household production or storage.

(D) Farmstead:

A total of 23 examples of the farmstead-site were collected, from nine different classification systems. Within these examples, slightly more than half is accompanied by a scatter-size indication (see attachments Pt. B-VI: graph 10; p.56). Although they range from \(< 51 \text{ m}^2\) to \(2,500 > < 7,500 \text{ m}^2\), they can be structured into two distinct groups: \(100 > < 999 \text{ m}^2\) (medium) and \(1,200 > < 2,500 \text{ m}^2\) (large). Classes higher than that probably belong to the villa-group. The evidence provided by the material assemblages is even more convincing, providing data in 87% of the cases. The assemblages mainly consist of tiles and storage / transport wares (amphorae / dolia). In addition, coarse-wares are also mentioned in some of the classification systems (see attachments Pt. B-VII: graph 17; p.60).

(F) Villa:

The villa-type is the most prominent site-type in the compiled data-set: a total of 33 examples from all 16 individual site-classification systems. Two-thirds of the examples gave insight into the definition of scatter-sizes (see attachments Pt. B-VI: graph 10-13.3; p.56-57), leading to a subdivision into three distinct size-groups:

\textsuperscript{15} A Microsoft Access-database (designed specifically for this chapter) made it possible to compare the individually labelled classes side-by-side. This data-base is available on request from the author.

\textsuperscript{16} The secondary indicators are optional, consisting of site-characteristics mentioned only by a handful of (detailed) site-classification systems.
1,000 > < 5,000 m² (small), 5,000 > < 10,000 m² (medium) and > 10,000 m² (large). Of these size groups, the smallest one is the most occurring. In addition to the site-sizes, almost 85% of the classes came with a defined material assemblage (see attachments Pt. B-VII: graph 19-20.2; p.60-61). This consisted mainly of building material (tiles / architectural fragments) and luxury architecture (mosaic / tesserae / painted plaster). Additional material indicators are mentioned in some of the site-classification systems: storage wares (amphorae / dolia) and luxurious pottery (fine-ware).

It thus seems that the sites of the villa-type are represented by a whole range of materials, both simple and luxurious, of which only a specific combination leads to the interpretation of the site as a villa.

2.5. Conclusion

2.5.1. Farmsteads and Villae in survey data

The issue of site-classification is a contemporary one, especially due to the increasing importance of legacy data and the growing scale of most research projects. To deal with these vast amounts of data the comparative projects in the field of survey-archaeology make use of complex databases (i.e. Geographical Information Systems; GIS). For an effective use of these systems, an explicitly defined and consistent terminology is demanded. This is both an inherent strength (e.g. users must agree on definitions such as villa) and a weakness (e.g. subtleties or ambiguities are sometimes lost; Witcher 2012, 14). The obvious solution to facilitate this change in archaeological practice is to standardize the site-categories (i.e. to define global criteria with standard terminology, attributes and variables). The incorporation of these classes within the GIS could then assure comparability between survey projects.

An example of this process of standardization can be found in the works of Potter (1979; discussed by Rathbone 2008; attachments Pt. B-II: pp.16-17). To address the identification of smaller (Republican) farmsteads, Potter adopted a tripartite division of sites-types, based primarily on scatter-size and the presence of specific find-types. The three classes he defined were: (A) extensive scatters (app. 3,500 m²), which included dense concentrations of building material and luxurious architectural components; (B) medium sized scatters (1,000 – 1,400 m²), which included a far less extensive concentration of building material in combination with some decorative elements; and (C) small scatters (app. 100 m²), which consisted solely of small scale tile and pottery concentrations (see attachments Pt. B-III: table 3; p.35). Based on this data, he ranked them in hierarchical order (from high to low) as: (A) villae, (B) farmsteads and (C) huts (Potter 1979; in Rathbone 2008, 305-306).

Most scholars however underline the problems of such a standardisation of terminology. Rathbone (2008), for instance, commented directly on the above mentioned method of Potter, saying that: “the simple division of sites into two (or in the case of Potter three) implicitly distinct and unitary categories (like “farm” and “villa”) is unjustified and unhelpful.” (Ibid., 306-307). His opinion was underlined by Witcher (2012), how stated that: “The seemingly subjective, overlapping and contradictory categories make little sense when compared to (a true) Linnaean taxonomic system.” (Ibid., 11).

37 The classification system generally used in biology, for the classification of animal species.
Based on the above mentioned discussion, we may summarize the problems of comparative survey and site classification as follows: due to the fact that individual survey projects work independently in a broader system of archaeological knowledge, there is limited control over the used terminology and an over-optimistic belief in a consensus about its meaning. Moreover, most of the site-categories implemented reinforce existing narratives (of historical and landscape development) rather than providing a basis for reassessment (Ibid., 26).

Although I partially concede to this problematic view on survey-classification (and encountered certain aspects related to this in my research), the overall data I collected in my in-depth monographic study shows a number of promising results. For instance, despite the many different ways in which rural sites could be classified, most surveys in the Mediterranean have adopted a limited number of (basic) site-types. They are primarily dependent on two classes: farm and villa, both directly used in the reconstruction of settlement pattern and land division. Primary indicators for the two classes seem to be scatter-size and material assemblages (as discussed in §2.4.2; p.15). Though some overlap is present in the scatter-sizes between the types, the aspect can in most cases provide a first glimpse in the sites' identification, especially in combination with the material indicators. A great example of this is the site-classification system provided by Giuseppe (et al. 2002; attachments Pt. B-II: Project #7; pp.25-26), who mentions the presence of luxurious artefacts and materials in the villa-sites, and simple building material and storage wares in the farmstead-sites. Additional notes on relative artefact densities, together with class-interrelations in the site-types are also mentioned in some of the case-studies.

In turning towards the two main site-classes themselves, we can see that the farmsteads are very well-defined. They consist of material scatters of either \(100 > < \) 999 m\(^2\) (medium) or \(1,200 > < 2,500\) m\(^2\) (large); with a find-assemblage primarily indicated by building materials and evidence of storage / transport. On a socio-hierarchical scale the buildings should thus be interpreted as somewhat smaller habitational scatters, with some indication of agricultural production (and storage capacity). Based on the material evidence, these farmstead-sites are almost identical to the (sometimes mentioned) house-scatters. I believe that the site-labels of farmstead and house are somewhat interchangeable, but that their location forms the determining factor (i.e. house-scatters in a rural setting should be interpreted as farmsteads, not simply houses).

The survey definition of the villa type-classes is a bit more difficult. This is related to the combined nature of the terminology surrounding the site-class. The apparently Roman (emic) category of a villa is mainly drawn from ancient textual and epigraphic sources, but is overlaid with the accumulated baggage of centuries of subsequent use (which include recent activities; etc). The terminology behind the site-type is thus, in essence, both emic and etic in nature (Witcher 2012, 20). In combination with the large geographical area in which this dynamic site-type is found, this shows that the concept is not as static as most scholars think it to be.

In spite of the fact that the research projects do not arrive at a consensus on the overall definitions for villa-sites (as already addressed by Witcher 2012), my data-set did provide a clear class-definition (primarily based on size). Three relative size classes could be defined for the villa-type: \(1,000 > < 5,000\) m\(^2\) (small), \(5,000 > < 10,000\) m\(^2\) (medium), and \(> 10,000\) m\(^2\) (large). In addition, the presence of certain luxury indicators (which include luxurious architectonical elements, like marbles, mosaics, painted plaster and / or certain productive
structures, also seen in Project #3.3, attachments p.20 and Project #6.2, attachments p.24), were used to identify the site-type.

2.5.2. The influence of project based methodologies

In addition to the conceptualisation of a new general site-classification system, the analysis also gave insight in the direct influence of project based methodologies on defined site-typologies. The outcomes underlined a point already brought forth by Witcher (2006, 44), that “all survey blend methodology and interpretation inseparably”. True objectivity towards the encountered material assemblages is unthinkable, as researchers start to interpret the data as soon as they set foot in the field. In a later publication Witcher (2012, 14-16) added that “a site-category was only as meaningful as the questions it is used to answer”, further underlining the link between survey methodology and the interpretation of data. A class-typology should thus be seen as a reflection of the general research questions and implemented methodology of an individual researcher. The academic aims of each project determine which attributes are prioritised per class. Differences in definition between a farm and villa are thus both dependent on the research aims, as well as the archaeologist wielding them (ibid., 14-16). It is therefore vital that both the implemented methodology behind the project and the used site-classification system is carefully looked at and scrutinised before implementation.

The following part will address a fair share of these methodological influences, to illustrate how the survey data-sets and class-typologies are formed. The remarks should however not be seen as a critique of the implemented work method, but as mere observations in coping with these methodological problems:

One of the most prominent aspects related to the methodological issues is the use of global site-categories in combination with local attributes and variables. Projects following such a setup categorise the sites in globally implemented classes (e.g. farmstead, tomb, villa), but use local variables to discriminate the scatters accordingly. Even though this flexible approach is perfectly suited for individual projects, it impedes a comparative survey data-set: seemingly similar sites from different areas will then be described in different ways (based on local variables). This fact is attested by both Osborne, who identified alarming variations in scatter-sizes between farms and houses (cited in Witcher 2012, 24), and Rathbone, who concluded that the use of unitary categories (like farm / villa, or small / large) are unjustified and unhelpful (Rathbone 2008, 306-307).

Another problematic aspect is that of a restricted area of investigation (mainly due to limited time and funding). As landscape archaeology tries to reconstruct the landscape development of a certain area, limitations in coverable fields might impede the eventual results. Fortunately, the cases included in this thesis had the resources to cover a large enough area for their interpretation, ranging from 100 - 200 km² (Project #4, attachments p.21 and Project #6.1, attachments p.23), to even 1,000 km² (Project #2, attachments p.16). I can therefore be quite confident that this aspect did not influence my analysis. In cases where the limitation of the research area is unavoidable, the problem can be overcome by either focussing on micro regional patterns, or by sampling a smaller part of a physiographic region (which can later be extrapolated; Van Leusen 2002, 2-18).

Directly related to survey methodology is the sampling strategy, which can also lead to discrepancies in comparative analysis. Field surveys have often implemented grab samples (Witcher 2006, 46), to collect a diagnostic sample from an encountered site, leaving all other (ir)relevant material behind in the field (Perkins
1999; Project #3.1, attachments p.18). Sites, however, often extend beyond the predefined transect lines. This makes size-scatter analysis during unsystematic surveys virtually impossible (Giuseppe et al., 2002). To solve this, certain field projects devised more systematic collection strategies. Most successful was the Fogliano survey (1998-1999; discussed in Project #10.2, attachments p.31), which employed the block-survey method. By using pre-defined and uniform units, a statistically relevant coverage of the whole survey area could be achieved.

After collecting, the interpretation of field-data has its own problems. In most survey projects, the primary function of collected pottery sherds is to date or differentiate status, between sites (Witcher 2006, 49). Not all projects however, treat the material in similar ways. the Fogliano survey (attachments p.31) for instance makes use of defined and dated fabric-groups and wares, to trace changes in settlement hierarchy over time (Attema, De Haas and La Rosa 2003). Most classification systems however leave chronology out of there site-defininitions. No period specific site-assemblages are thus defined in the individual site-classification systems. In essence, too many surveys have allowed field practices to be subservient to logistical factors (Mattingly 2000, 5). Generalised standards were abandoned, making individual projects less suitable for comparative studies. Within Project #3.3 (attachments p.20) for instance, full coverage was abandoned as an enormous quantity of sherds made detailed collection impossible. Researchers thus turned to the collection of judgementally diagnostic samples (Perkins & Walker 1990, 7-8). Another example is Project #8 (attachments table 14, p.43), in which the classification system shows a sub-division of scatter-sizes in relative site classes (i.e. small / medium / large). These size differences have however not been mentioned in the publication itself and seem to be applied at random by the research in the field. This makes the interpretation subjective in nature, rather than the objective quantification that was intended.

The final aspect to be discussed is the level of detail in a site-typology. From the projects I discussed, this aspect seems to differ quite heavily. Not every piece of archaeological evidence, or each defining site-specific characteristic, is discussed in equal detail: lacking either scatter-size, material evidence, or even both (see attachments Pt. B-IV: table 20-12, pp.50-51). Some projects provide a detailed list of characterizing archaeological materials, whilst others simply mention that the site-type consists of building material of a certain (relative) size, without further specification (Witcher 2012; Attachments table2, p.35).

Based on these biasing factors one should reconcile with the fact that even the most perfectly designed methodology (even under the best possible circumstances) could never hope to find traces of all the cultural activity in a particular area. It is therefore essential for archaeological researchers to develop a consistent research design and survey plan, which is discussed thoroughly in the projects main publication, so that other scholars can understand the results in relation to choices that were made.

2.5.3. Addressing the research questions

Now that the data-set has been introduced, the analysis has been conducted, and the outcomes discussed, the main (and sub-) research question can be addressed one last time. Overall, the analysis showed that most present day surveys employed roughly comparable site-classifications (though sometimes influenced by both local and logistic factors). The gross of the projects make use of a general division of rural sites, in accordance with the three archetypical (historically based) classes: villae (i.e. large in size and high in status), medium farm-
steads (i.e. medium size and middle-status), and small farmsteads (i.e., small size and low-status; a division also attested in: Launaro 2012, 123\(^\text{18}\)). From their definitions, we can already see that scatter-size and the presence of a certain material assemblage are the most type-defining characteristics (Table 4; p.19).

Many theoretical publications (e.g. Gillings, Mattingly & Van Dalen 1991, 57-58) stressed the fact that scatter-sizes from different field survey projects could not be compared. They mention the fact that size is represented in relative increases or decreases in material density (not absolute counts or specific figures), and directly linked to project specific methodological choices. My analysis of the sixteen examples however showed the opposite: that the site-classes implemented do show distinct comparative size-categories, and can thus be used as a quite distinctive feature between site-types.

As for the material assemblage aspect of site-types, the detailed classification of rural sites based on the characteristics of material scatters has also always been seen as a rather difficult undertaking. Farmsteads, both Republican and Imperial, were thought to consist of simple scatters of tiles and pottery, sometimes in addition to stone blocks or building debris. Larger estates, generally described as villae or villae rusticae, consist of more extensive architectural remains and status indicators (such as the remains of mosaic floors and column drums; Attema et al. 2008, 434). When looking at the material indicators brought forth by my analysis, these differences become even clearer. The primary indicators for farmsteads seem to form a combination of simple building materials with an abundance of storage wares. Villae have more luxurious building materials (mosaic, plaster and other architectural fragments), lacking storage wares as primary indicators. It thus seems that the initial (and natural) hierarchical order of site-types, is directly attested in the materials uncovered on site during a survey-project.

The final part of this conclusion will deal with the methodological choices related to survey projects, as well as the validity of the notion of a generalised site-classification system. Although one might say that the implementation of certain site-classes is faulty, and undoubtedly have historical connotations as well as expectations about site-status\(^\text{19}\), it seems that the use of such general classes is the only way of making site-categories comparable. Through the use of general site-classes, but whilst incorporating the project-specific criteria to identify categories, different survey projects can be compared and even address local differences in the material culture on the sites. A generalised site-typology it therefore not only possible, but maybe even a sheer necessity. Whether this must entail a polythetic site-class system (meaning that no single criterion is necessary to classify each site), or another ‘ad-hoc’ method, will be addressed in the final chapter of this thesis.

To conclude and address the main question related to this chapter (“How are Republican ‘farmsteads’ and ‘villae’ defined in survey classification systems (i.e. most commonly used site-characteristics)?”), the answer is as follows: the differences between farmsteads and villa are quite natural in most classification systems. In general a villa is seen as having a much greater diversity of (building) materials indicative for luxurious accommodation, compared with the more simpler standing rural structure (farmstead), whose only differences with

---

\(^{18}\) The tripartite notion of ‘villa’, ‘casu’ and ‘tugurium’ (class-names derived from the ancient agronomists).

\(^{19}\) In Latin, a ‘villa’ signifies no more than a rural building. Scholars are trying to capture a very dynamic and diverse building type within a single very restricted category (Fentress cited in: Witcher 2012, 15-1).
normal houses are the buildings location and presence of certain storage wares. Whether this image will hold
when compared to evidence collected from actually excavated examples, will be discussed in the next chapter.

<table>
<thead>
<tr>
<th></th>
<th>Approximate Area</th>
<th>Building material</th>
<th>Pottery shapes / wares</th>
<th>Functional objects</th>
<th>General Description of the Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>House</td>
<td>&lt; 250 m² (S)</td>
<td>Building material (tiles)</td>
<td>Table-ware / Domestic (common-w.)</td>
<td>Domestic crafts (grinding stone, loom-weight, slag)</td>
<td>A simple pottery scatter, with large quantities of building materials and pottery (though almost no fine-ware). It lacks luxurious or architectural decoration. Functional objects may indicate food preparation or domestic crafts.</td>
</tr>
<tr>
<td></td>
<td>250 &gt; &lt; 1,200 m² (M)</td>
<td></td>
<td>Storage (pithos)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,200 &gt; &lt; 2,500 m² (L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farmstead</td>
<td>100 &gt; &lt; 999 m² (M)</td>
<td>Building material (tiles, brick, rough / cut stone)</td>
<td>Table-ware / Domestic (coarse-w.; common-w.)</td>
<td>Cooking-stand (ceramic)</td>
<td>A rural structure of medium-size, with evidence of domestic occupation and agricultural activity. Mainly made of simple building materials. No evidence of internal social hierarchy (cf. “Villa”).</td>
</tr>
<tr>
<td></td>
<td>1 &gt; 2, 500 m² (L)</td>
<td></td>
<td>Storage (amphorae, dolia)</td>
<td>Domestic crafts (grinding stone, loom-weight, slag)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Luxurious pottery (fine-w.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Villa</td>
<td>1,000 &gt; &lt; 5,000 m² (S)</td>
<td>Building material (tiles, architectural fragm., bricks, rough / cut stones)</td>
<td>Tableware / Domestic (coarse-w.)</td>
<td>Glass (objects, building material)</td>
<td>A site-type incorporating a great diversity of building materials, storage capability, and evidence for luxurious accommodation. Easily identifiable through more elaborate structural features and a higher quality of finds.</td>
</tr>
<tr>
<td></td>
<td>5,000 &gt; &lt; 10,000 m² (M)</td>
<td>Luxurious architecture (columns, marble, mosaic, tesserae, painted plaster, pavements)</td>
<td>Storage (amphorae, dolia)</td>
<td>Complex features (bathhouses, cisterns, hypocausts)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt; 10,000 m² (L)</td>
<td>Preserved structures (above or below ground)</td>
<td>Luxurious pottery (fine-w.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Luxurious goods (import)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4: A generalized overview of the characteristics per site-type (for: house, farmstead, villa). This overview includes both functional-classes (bold) and specific materials (italic). The table is based on all the site-type specific characteristics discussed throughout this chapter.

2.5.4. The next step

The solutions to most survey archaeology problems are widely believed to lie below the ground. There is a persistent belief that surface material is an inferior, degraded version of sub-surface evidence. Archaeologists frequently appeal to verification by the spade (Witcher 2012, 27). The next chapter will therefore address the relationship between surface and sub-surface archaeology (or survey and excavation), as well as provide alternative approaches to site-classification. It will explore whether site-typologies, used in excavation projects, are based on similar characteristics and variables as the survey cases brought forth in this chapter.
Chapter 3:
Analysis of excavated examples

3.1. Introduction

3.1.1. General introduction
Following the discussion on surveyed examples, this chapter will discuss the manner in which Republican rural sites (e.g. farmsteads or villae) are generally perceived within archaeological excavation projects. After the excavation of the site, the process of interpretation commences. This includes: object description, find classification, and ground plan analysis. When combined, these characteristics will provide both a chronological timeframe of the building and a functional interpretation of each individual room. This will help in determining how the building should be labelled (i.e. which specific site-classes are fitting).

Although topographical surveys have identified a lot of farmstead-sites (as seen in the previous chapter), only a few of this specific site-type have eventually been systematically excavated. This underrepresentation of the site-type was already attested by Rossiter about 35 years ago (1978, 5). Much progress has been made since, providing at least a few dozen of excavated examples. These are all however examined and published in their own specific way (Witcher 2012), making direct comparability an issue.

3.1.2. Main research questions
In accordance with the above mentioned problems, this chapter will focus on the research questions related to the archaeological site-classifications as applied within (published) excavations of Roman Republican farmsteads and villae. Through a comparison of individually excavated cases, an attempt is made to define specific site-characteristics for both site types. The main question is therefore defined as follows: (iv) “How are Republican ‘farmsteads’ and ‘villae’ defined in archaeological excavations (i.e. most commonly used site-characteristics)?”. This question deals directly with the archaeological material encountered on the excavated sites. As was the case in the previous chapter on surveyed examples, three aspects are considered as main points of interest: (1) the defined building dimensions (including internal, external and total building surface), (2) the overall building shape (i.e. ground plan analysis), and (3) the differences in material assemblage (i.e. architectural evidence, material evidence, ceramic shapes, and ceramic wares).

A more theoretical question is how the interpretation of these excavated sites is influenced by methodological choices made by the archaeological investigators: (v) “How do excavation methodologies and project-specific aims colour the way in which site-classes are provided to excavated examples?”). Both the research questions and project aims influence how the excavated material is interpreted, and how this influences the setup of an eventual site-classification system. An overview of the methodological choices leading to the excavation is therefore essential.
The final research question considers whether a generalized site-classification, applicable to all excavated farmstead and villa sites, is even valid: (vi) “Can a generalized site-classification (covering all possible excavated examples) even considered to be a valid idea?” By comparing the individual excavated case-studies it will become clear if the ground plan data and material assemblage at the sites is similar enough for such a generalised scheme to work (i.e. is there a ‘natural’ division of site-classes).

3.2. Method

3.2.1. Adapting the system of van ’t Lindenhout

After the initial inspection of the collected case-studies, it became apparent that the ‘architecture’, ‘size’ and ‘layout’ of Roman farmsteads and villae vary considerably. Certain differences are probably caused by local factors (like available building material and regional preferences in building-style), but some might also have a functional background. In theory: similar buildings, made up of similar building materials, should have a similar functional interpretation.

In order to address these site-characteristics this part of the thesis builds primarily upon the dissertation of van ’t Lindenhout (2010). In light of her work, van ’t Lindenhout searched for a good way to compare archaic houses and temples throughout southern Lazio (to eventually produce a classification of archaic sites in this region). She addressed four main focus-points: construction-technique, ground plan, chronology and building function / meaning (van ’t Lindenhout 2010, 5). Together, these aspects would give insight into the use and development of the building (in her words: “the biography of the house”; van ’t Lindenhout 2010, 4).

In a way van ’t Lindenhout’s focus-points are comparable to Witcher’s system of classificatory dichotomies (implemented in the previous survey-chapter). They provide a way to systematically deconstruct the individual excavated examples, in order to understand how material assemblages and architectural data influence the interpretation of the rural site (and compare the case-studies one-to-one).

To fit the data-set of excavated rural sites, I adapted van ’t Lindenhout system. Based on the research questions this led to a tri-part division: (1) General information on site or publication, (2) Architectural ground plans and (3) Material evidence (see Table 5; p.30). An outline of these individual topics will be given below.

Focus-Point #1. General information on site or publication:

The first group includes aspects directly related to the interpretative framework provided by the original investigators. The building Interpretation (i), as provided by the original excavators, might be the most important aspect within the first ‘Focus-Point’. In combination with the ‘material assemblage’ (discussed later on), it provides insight into the theoretical background behind the implemented site-classes: “Did the researchers for instance primarily focus on the material finds they uncovered, or did they include the spatial context of the rooms in their functional interpretation of the complex (e.g. van ’t Lindenhout 2010, 5)?”

Also included is the chronological interpretation of the site, both the relative date-range (in periods) as exact dating (ii) in centuries. This data can be used to investigate a development of different farmsteads (and their material representation) over time.
Focus-Point #2. Architectural ground plans:

The second group deals with aspects embedded in the ground plan of the excavated site. As such, this part gives insight in the way the buildings were set-up and how this might influence (functional) interpretation of the excavated sites. Both similarities and variations in the architectural layout of the houses can (in theory) express social equality between site-types.

Central to this focus-point are two typological systems: type-new (iii), which is a generalised typology based on observable differences in the ground plan (devised specifically for this thesis)


20

21

22

23

24

25


in relation to its functional interpretation.

23; The (true) material evidence (viii) collected from the archaeological sites, which includes all objects not falling under either the architectural- or ceramic evidence groups (i.e. functional objects like tools, or luxurious items like jewellery). 24; The ceramic shapes (ix), used to define the functional use of the site (in relation to the overall percentages in which they are present). 25; And


20 The typology and its parameters will be discussed in detail in § 3.2.3 – 3.2.4 (pp.30-34).
25 The classes: (A) Cooking-Ware, (B) Storage / Storage-Transport ware, (C) Table-Ware, (D) Miscellaneous, and (E) ‘Unknown’.
Finally, the ceramic wares (x), which can be used for dating purposes and provide insight into the general ‘material assemblage’ (i.e. “status”) of sites.26

<table>
<thead>
<tr>
<th>Focus-Point</th>
<th>Nr.</th>
<th>Classificatory Characteristic / Site-Characteristic</th>
<th>Keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. General Information</td>
<td>(i)</td>
<td>“Which (functional) site-interpretation was given to the site by its primary investigator?”</td>
<td>[Building Interpretation]</td>
</tr>
<tr>
<td></td>
<td>(ii)</td>
<td>“What is the ‘relative’ (in periods) and ‘absolute’ (in centuries) date-range per excavated case?”</td>
<td>[Relative / Absolute Date]</td>
</tr>
<tr>
<td>2. Architectural Groundplan</td>
<td>(iii)</td>
<td>“Within which category of “new” groundplan-typology does the excavated site belong (i.e. “A” – “E”)?”</td>
<td>[Type-New]</td>
</tr>
<tr>
<td></td>
<td>(iv)</td>
<td>“What is the generalised site-classification as provided by the original excavators (i.e. “Farm”, “Villa” or “Villa Rustica”)?”</td>
<td>[Type-Source]</td>
</tr>
<tr>
<td></td>
<td>(v)</td>
<td>“What is the general shape of the uncovered structure (i.e. “rectangular”, “square” or “L-shaped”)?”</td>
<td>[Building Shape]</td>
</tr>
<tr>
<td></td>
<td>(vi)</td>
<td>“What are the buildings dimensions (i.e. “internal”, “external” and “total”)?”</td>
<td>[Building Dimensions]</td>
</tr>
<tr>
<td>3. Material Evidence</td>
<td>(vii)</td>
<td>“What kind of architectural elements were uncovered (e.g. walling, mosaic, pillars, etc.)?”</td>
<td>[Architectural Evidence]</td>
</tr>
<tr>
<td></td>
<td>(viii)</td>
<td>“What kind of (functional) objects were uncovered (e.g. grinding stones, coins, etc.)?”</td>
<td>[Material Evidence]</td>
</tr>
<tr>
<td></td>
<td>(ix)</td>
<td>“What kind of ceramic shapes were uncovered (e.g. table-wares, fine-wares, storage wares, etc.)?”</td>
<td>[Ceramic Shapes]</td>
</tr>
<tr>
<td></td>
<td>(x)</td>
<td>“What kind of ceramic wares were uncovered (e.g. coarse-wares, Vernice Nera, Impasto, etc.)?”</td>
<td>[Ceramic Wares]</td>
</tr>
</tbody>
</table>

Table 5: A table listing the selected dichotomies for the analysis (Which forms the base of the ‘Project Characteristics analysis; Attachment Part I).

3.2.3. Introduction to the Ground-plan typology

Now that we have determined which site-characteristics need to be addressed, we can turn to the format of the data-set: how are we going to compare so many different excavated examples? For the solution we again turn to the work of van ‘t Lindenhout (2010). She also searched for a good method to compare different buildings, in order to create a fitting classification-scheme, and found her solution in one of the main aspects she discussed: the buildings general ground plan.

Throughout her dissertation the importance of this aspect was greatly underlined. Not only does this aspect seem to represent the underlying ideas of the ancient builders27, but it is also a primary source of information encountered in the field (directly derived from the buildings foundations). Ground plans provide ‘hard’ data which can be used to structure a comparison of a large set of individual cases.

A generalised typology based on the layout of the individual buildings would therefore be a perfect way to handle the vast amount of data embedded within the case-studies. The personalised typology included

27 An idea conceived by Waterbolk: “Het huis dat door de opgegraven plattegrond vertegenwoordigd wordt, is de uitdrukking van de vormwil van de bouwers.” (Waterbolk 2009).
six ‘main’ ground plan-types\(^{28}\) (with up to eight sub-groups\(^ {29}\)), which could be distinguished from the 34 included excavated cases. They were based on generalised versions of the individual ground plans. The plans themselves were carefully redrawn from the previously published source publications (though schematically), in order to provide uniformity in the documentation (see attachments Pt. C-III, pp.78-108). The typology and type-definitions will be discussed in the next paragraph.

3.2.4. The Ground-plan types

The hierarchical order introduced here is based on a visual inspection of the included excavated examples. They take into account the general building shape, number of rooms and building dimensions. In some cases, specific architectural elements are mentioned, like courtyards or centralised hallways. For a visualisation of the ground-plan types, see figure 5 (below) or attachments Pt. C-II-A (figure 3.1-3.3; pp.70-72).

<table>
<thead>
<tr>
<th>[General Building Types]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type A:</td>
</tr>
<tr>
<td>[A-I]</td>
</tr>
<tr>
<td>Type B:</td>
</tr>
<tr>
<td>[B-I]</td>
</tr>
<tr>
<td>[B-II]</td>
</tr>
</tbody>
</table>

| Type C:                  |
| [C-I]                    |
| [C-II]                   |
| Type D:                  |
| [D-I]                    |
| [D-II]                   |
| Type E:                  |
| [E]                      |

Figure 5: A visualisation of the ‘main’ ground-plan types used in this chapter. This figure is a simplified version of the one included in attachments Pt. C-II-A (figure 3.1-3.3; pp.68-72).

The first ground plan type to be discussed, **type A**, is generally defined as small scale (10 x 15 m\(^2\) / 0 - 250 m\(^2\)) rural buildings, of a rectangular (or semi-square) shape. They consist of a select number of rooms (1 – 5x).\(^{30}\) The main class can be sub-divided into two distinct sub-types: A-I and A-II. Although the general building-shape of the site-types is essentially the same, a difference can be found in the internal sub-division of rooms. The type A-I examples are the smallest buildings included in the data-set (10 x 10 or 10 x 20 m\(^2\) / 0 - 200 m\(^2\)), consisting of just one or two small rooms (i.e. cells). They are generally rectangular (or semi-square) in shape. The other

---

\(^{28}\) I.e. Type A, B, C, D, E, and ‘[0]’ (the “rest”-group).

\(^{29}\) I.e. A-I / A-II, B-I / B-II, C-I / C-II, and D-I / D-II.

\(^{30}\) The number of rooms per type-new group have been listen in attachments Pt. C-IV: graph 33, p.116.
type, A-II, can also be labelled as small (10 x 15 m² / 100 - 250 m²), mainly rectangular in shape. This slightly bigger ground plan is also visualised by the higher number of rooms: 4 - 5x.

The second ground plan type (B) includes excavated examples of a small to medium size (20 x 25 m² / 0 - 350 or 650 - 800 m²). In contrast to the above mentioned A-types, these slightly larger buildings show an additional architectural feature as primary indicator. The complexes are complemented by a small adjacent courtyard. This open area is enclosed by a series of rooms, arranged in ‘wings’ (i.e. alae). The building’s setup leads in most cases to an L-shape (or rectangular). As this central area connects all the rooms within the complex to each other, it can be seen as the focal-point of the complex. The number of rooms included within the building is however still quite limited (app. 4 – 7 rooms). A sub-type division could be made, based on the placement of the courtyard in relationship to the other rooms included within the building. The type B-I examples are small to medium in size (20 x 20 m² / 0 - 800 m²), consisting of a limited number of rooms (4 – 5x; comparable to both the A-types). The rooms encompassed by the building are generally placed within an L-shaped ground plan, in which a walled courtyard is encompassed by the two rows of rooms (app. 2 - 3 rooms per wing). In contrast, the B-II type is medium in size (10 x 30 m² / 300 - 350 m²), consisting of a single wing of rooms with adjacent courtyard. It includes a larger number of rooms than its sister-class B-I: 7x rooms instead of 4 - 5x.³¹ This difference in setup also leads to a rectangular (elongated), rather than L-shaped complex.

The third ground plan type (C) includes examples labelled as medium sized (15 x 20 m² / 150 - 350 m²) rural buildings, with a rectangular (or square) ground plan. Central to this type is the (roofed) hall-way in the middle of the complex. Alongside this feature all other rooms (4 - 10x) within the building are placed, making it the focus-point of the complex. Although most of the excavated examples encompassed by this main type follow a seemingly strict building plan, some do deviate from the general building-layout. Based on this, a subdivision can be made into two distinct groups: C-I and C-II. The first sub-type, C-I, consists of medium sized (15 x 20 m² / 300 - 350 m²) rectangular buildings, in which a central hall-way is the main feature (9 - 10 rooms). In contrast, the C-II type is medium to large in scale (10 x 15 m² / 150 - 200 m²). Rectangular in shape, they are also complete with a central (roofed) hall-way. The examples have however become part of a much larger (possibly villa) complex, something not attested in the C-I sub-type. The sub-division in building types is thus primarily based on the later incorporation of the building into a much larger complex (in most cases on a later date into a larger (villa-)complex).³²

The fourth ground plan type (D) consists of medium to large scale rural buildings (25 x 40 m² / 500 - 700 m² or 1,000 – 2,500 m³), which are mainly rectangular (or square) in shape. Central to this type is the atrium-like (open) courtyard in the centre of the complex.³³ All other rooms (10 - 30°x) within the complex are placed around the centralised courtyard. Within my building typology, I distinguish between two sub-types: cases with only the centralised courtyard (type D-I) and cases with both a centralised and secondary courtyard

³¹ This also includes more privately placed rooms (including more secluded, harder to access, rooms).
³² Some of the excavated examples (‘Ex-5.1’ till ‘Ex-5.3’) included within this building type might have included a secondary storey on top of the main floor. Although this feature might have influenced the (functional) interpretation of the examples, this additional architectural element is, as of yet, only speculated.
³³ The open courtyard might (functionally) separate the domestic and agricultural quarters of the complex (as hypothesised by Rossiter 1978, 18).
on one of the outer sides of the building (type D-II). The first sub-type, D-I, is medium in size (25 x 30 m² / 200 – 1,200 m³), with a centralized atrium. This feature provides access to all other rooms (10 - 20x) within the complex. The building itself is rectangular (or square) in shape. The second, D-II, is larger (30 x 50 m² / 1,000 – 2,500 m³), with at least two courtyards. The complex is rectangular in shape, consisting of 10 - 30 rooms.

The fifth ground plan type (E) is generally identified as real, large scale villa-complexes (40 x 45 m² / 2,000 – 3,600 m³). They are complete with centralized and additional courtyards, additional sheds or outhouses, and production rooms (in total either 8 – 10 or 40 – 41 rooms). The complex is comprised of different sectors. Although most examples share a generalised architectural ground plan within this type, in which two main nuclei of rooms at juxtaposed positions create a combination between residential area and production centre (i.e. a functional differentiation), some sites seem to have a much looser arrangement.

The sixth and final type to be discussed is the ‘[0]’-type. Truthfully, this group of examples should not really be seen as an individual site-type based on the generalised ground plan of the included examples. It is simply a group that encompasses all the unidentifiable complexes, which were too heavily damaged by post-deposition processes (or unavailable data due to only partial excavation practices) to provide enough information on ground plan identification. The ‘[0]’-type should therefore be seen as a “Rest”-group, in which all the “misfits” are collected.

In general, the ground plan typology thus visualises a hierarchical seriation: ranging from simple to complex building-types (see Table 6). This division is also represented in the case-numbers per type-group. The most simplistic types (A and B) encompass the gross amount of the examples, whilst the more luxurious and complex cases are present in much lower amounts. When comparing these functional labels with both the type-source and type-new typologies, we can generally conclude that the ‘A-B-C’-typology as hypothesized in the type new-analysis is supported and confirmed here. Type A = farmsteads (both simple and more developed examples); B = larger farmsteads (as well as possible small ‘Villae Rusticae’); and C = villa (rustica) (large scale rural farmsteads, with some luxurious status symbols).

---

34 In this description, the D-II sub-type is virtually identical to the main type, but has a secondary feature: an additional courtyard located on one of the outer (longitudinal) sides of the building.

35 A more detailed report of the ground plan typology was included in the attachments: Pt. C-II-B (pp.73-77).

36 For a more detailed overview of the results, see attachments Pt. C-V: ‘Type-Source’, p.126-128.
<table>
<thead>
<tr>
<th>Main Type</th>
<th>Sub Type</th>
<th>General Shape</th>
<th>Size</th>
<th>Rooms</th>
<th>Additional features</th>
<th>General description / comments</th>
<th>Cases</th>
<th>Nr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[A]</td>
<td>[A]</td>
<td>Rectangular (or semi-square)</td>
<td>Small [10 x 15 m²] (0 - 250 m²)</td>
<td>1-5x</td>
<td>[n/a]</td>
<td>Select nr. of rooms</td>
<td>8x</td>
<td>1.1 – 2.3</td>
</tr>
<tr>
<td></td>
<td>[A-i]</td>
<td>Rectangular (or semi-square)</td>
<td>Small [10 x 10 / 20 m²] (0 - 200 m²)</td>
<td>1-2x</td>
<td>[n/a]</td>
<td>Just one / two (small) rooms</td>
<td>5x</td>
<td>1.1 – 1.5</td>
</tr>
<tr>
<td></td>
<td>[A-II]</td>
<td>Rectangular</td>
<td>Small [10 x 15 m²] (100 - 250 m²)</td>
<td>4-5x</td>
<td>[n/a]</td>
<td>At least two (or more) rooms</td>
<td>3x</td>
<td>2.1 – 2.3</td>
</tr>
<tr>
<td>[B]</td>
<td>[B]</td>
<td>L-shaped (or rectangular)</td>
<td>Small – Medium [20 x 25 m²] (0 - 350 m² / 650 - 800 m²)</td>
<td>4-7x</td>
<td>- Adjacent (small) courtyard</td>
<td>Limited surface size</td>
<td>7x</td>
<td>3.1 – 4.1</td>
</tr>
<tr>
<td></td>
<td>[B-i]</td>
<td>L-shaped</td>
<td>Small – Medium [20 x 20 m²] (0 - 800 m²)</td>
<td>4-5x</td>
<td>- Walled courtyard</td>
<td>Limited nr. of rooms</td>
<td>6x</td>
<td>3.1 – 3.5</td>
</tr>
<tr>
<td></td>
<td>[B-II]</td>
<td>Rectangular (elongated)</td>
<td>Medium [10 x 30 m²] (300 - 350 m²)</td>
<td>7x</td>
<td>- Single wing of rooms</td>
<td>Larger and more rooms than &quot;[B-i]&quot;</td>
<td>1x</td>
<td>4.1</td>
</tr>
<tr>
<td>[C]</td>
<td>[C]</td>
<td>Rectangular (or square)</td>
<td>Medium [15 x 20 m²] (150 - 350 m²)</td>
<td>4-10x</td>
<td>- Central hallway (roofed)</td>
<td>[n/a]</td>
<td>4x</td>
<td>5.1 – 6.2</td>
</tr>
<tr>
<td></td>
<td>[C-i]</td>
<td>Rectangular</td>
<td>Medium [15 x 20 m²] (300 - 350 m²)</td>
<td>9-10x</td>
<td>- Central hallway</td>
<td>[n/a]</td>
<td>3x</td>
<td>5.1 – 5.3</td>
</tr>
<tr>
<td></td>
<td>[C-II]</td>
<td>Rectangular</td>
<td>Medium – Large [10 x 15 m²] (150 - 200 m²)</td>
<td>4-5x</td>
<td>- Central hallway (roofed)</td>
<td>[n/a]</td>
<td>2x</td>
<td>6.1 – 6.2</td>
</tr>
<tr>
<td>[D]</td>
<td>[D]</td>
<td>Rectangular (or square)</td>
<td>Medium – Large [25 x 40 m²] (500 - 700 m² / 1,000 - 2,500 m²)</td>
<td>10-30’x</td>
<td>- Centralised courtyard (i.e. “Atrium”; unroofed) - Other rooms around centralised courtyard</td>
<td>[n/a]</td>
<td>6x</td>
<td>7.1 – 8.2</td>
</tr>
<tr>
<td></td>
<td>[D-i]</td>
<td>Rectangular / square</td>
<td>Medium [25 x 30 m²] (200 – 1,200 m²)</td>
<td>10-20x</td>
<td>- Centralized “atrium”</td>
<td>Private setup of the complex</td>
<td>4x</td>
<td>7.1 – 7.3</td>
</tr>
<tr>
<td></td>
<td>[D-II]</td>
<td>Rectangular</td>
<td>Large [30 x 50 m²] (1,000 – 2,500 m²)</td>
<td>10-30’x</td>
<td>- Centralized “atrium”</td>
<td>Virtually identical to the main type</td>
<td>2x</td>
<td>8.1 – 8.2</td>
</tr>
<tr>
<td>[E]</td>
<td>[E]</td>
<td>Different Sectors (or rectangular)</td>
<td>Large [40 x 45 m²] (2000 - 3600 m³)</td>
<td>8-10x / 40-41x</td>
<td>- Centralized courtyard - Add. Courtyard (outside) - Add. Outhouses / prod. Rooms</td>
<td>Generally Identified as real, large scale, villae-complexes</td>
<td>4x</td>
<td>9.1 – 9.3</td>
</tr>
<tr>
<td>[0]</td>
<td>[0]</td>
<td>[n/a]</td>
<td>[n/a]</td>
<td>[n/a]</td>
<td>- Unidentifiable complexes - Severely damaged by post-depositional processes - Sometimes partial excav.</td>
<td>Not enough info available for general ground plan</td>
<td>5x</td>
<td>10.1 – 10.5</td>
</tr>
</tbody>
</table>

Table 6: A table listing the generalized characteristics per ground plan type. Based on a combination of all the type-characteristics discussed in the previous paragraphs.
3.2.5. The data-set

A series of fieldwork-projects forms the base of the analysis, and gives insight in both the implemented site-types, as well as underlying methodological questions. In total thirty-four individual excavated examples from ten different (administrative) regions were selected.\(^{37}\) The project-descriptions that list the general methodology and research aims are included in the attachments (Pt. C-III: ‘Introduction of the incorporated projects’; pp.78-108). The excavated cases were selected on the basis of their detailed description of the excavated material classes, their general ground plan, their geographical scope (dealing with surveys in either central or southern Italy; Figure 6), and their chronological timeframe (the Republican Period, broadly defined as the mid-sixth century B.C. to the mid-first century B.C.).

The initial intention (at the start of the project) was to focus mainly on examples from either one of the two regions surrounding Rome (Lazio and Tuscany). Although the gross of the excavated examples are indeed located within these two regions (19 of the 34 cases), this setup unfortunately turned out to provide a quite limited amount of usable excavated examples. The scope of the search for useable examples was therefore broadened to include examples from all over the Italian peninsula and isles. This broad scope provided a more reliable and large dataset, with a high range and variety of excavated examples.

The cases present excavated rural sites initially interpreted (by the original investigators) as either a Republican ‘farmstead’ or ‘villa’.\(^{38}\) They present both complete scientific excavation projects (by universities), and partial ‘rescue’ excavations (by the Soprintendenza). Through analysis of these cases, we can get particular insight into the material assemblages and ground plans connected to the ‘farmstead’ and ‘villa’ site-classes, as well as the influence of excavation methodologies on site publication and interpretation. Conclusions will be drawn on the data provided by the projects, and references will of course be made to the parts of particular interest.

3.3. Analysis

3.3.1. Focus-Point #1 - General information on site or publication:

In this part of the chapter the information on the different site-interpretations (from the individual excavated case-studies) will be analysed collectively. By compiling the information in an Access-database, variety in implemented site-characteristics (i.e. the observable features used in the identification of sites) could be

\(^{37}\) Cases per region: Lombardy (3x), Liguria (1x), Tuscany (4x), Marche (1x), Lazio (15x), Molise (1x), Campania (3x), Apulia (2x), Basilicata (2x) and Sicily (1x).

\(^{38}\) For which a variety of terms is in use: ‘Farmstead’, ‘Fattoria’, ‘Villa Rustica’ and sometimes ‘Villa’. 
compared side-by-side. This provides insight into the aspects that are used as primary indicators for specific site-classes, but also discusses more general methodological issues.

When looking at the case-studies included within the data-set we can conclude that most of the buildings were excavated by the Italian Soprintendenza (aspect A - Excavation Institution). They comprise 31% of the total excavated examples, and should probably be interpreted as rescue-excavations. This interpretation is supported by the fact that the most of these cases seem to be labelled as incomplete (in other words: sites that were only partially excavated or are heavily disturbed by taphonomic processes). As it is quite possible that different researchers from different (scientific) backgrounds interpret and publish data in different ways (giving more attention for example to certain aspects), this aspect should be kept in mind when looking at the rest of the analysis.

Directly related to this aspect are the taphonomical processes present on site (aspect B - Disturbance Taphonomy). When looking at the dataset, we can see that most of the cases are either without any defined taphonomic influence (“[XXX]”; 47% of total) or severely influenced by recent modern ploughing activities (34% of total; see attachments graph 24, p.110). Although it seems unlikely that the “[XXX]”-group was truly without any kind of disturbance, probably just not severe enough to explicitly mention in the publication, the taphonomical processes are not a very hindering factor in the analysis of the data-set.39

On a chronological note (aspect C - Relative / Absolute Date-range), it seems that the 34 included examples were much too stretched out over the time-periods for a specific chronological analysis to be statistically relevant. The main range of the cases however seems to be in line with the time-frame selected for the thesis, around the ‘Late Republican’ (and ‘Early Imperial’) period (29 of the 34 examples; see attachments graph 25, p.110). Some additional examples stem from the rest of the republican period, either just before or just after the later republic: i.e. ‘200 - 100 B.C.’ (17%) and ‘A.D. 0 - 100’ (22%). During the analysis, I attempted to correlate the proposed type new-groups to specific chronological periods, in order to determine whether a general development of farmsteads over time was apparent. Even though most types had very broad timeframes, some observations could be made: most of the complex building types (like D and E: villae; see attachments graph 27, p.111) are placed towards the end of the chronological time-line, whilst the simpler types (like A and B: farmsteads; see attachments graph 26, p.111) are encountered during all of the chronological time periods. The chronological division of the types and sub-types is however not convincing enough to address certain changes or “evolutions” in ground plan architecture.40

3.3.2. Focus-Point #2 - Architectural ground plans:
This second part of the analysis deals with aspects embedded in the ground plan of the excavated site. It will discuss both the defined building dimensions (including internal, external and total building surface) and the overall building shape.

39 For a more detailed overview of the results, see attachments Pt. C-V: ‘Disturbance Taphonomy’, p.123.
40 For a more detailed overview of the results, see attachments Pt. C-V: ‘Relative Date-range’, p.123-125.
Building Dimensions

As is the case for the surveyed examples (discussed in Chapter 2), building-size seems to be one of the most commonly used criteria within site-definition (attested in 97% of the included cases). Probably due to its direct relationship with the observed features in the field (derived from the ground plan). Through listing the building dimensions per case-study, the sites’ proportions are defined in a quantitative sense (see attachments C-IV: tables 27-29, p.114).

Although the variety in site-size is quite high between the different case-studies included within the data-set, a set of ‘size-groups’ could be defined (see Figure 7; p.38): (A) consists of excavated rural buildings with an average size of 100 - 200 m² (29%; belonging to the A and C-type), probably interpretable as small farmsteads; (B) buildings covering an area of approximately 200 - 350 m² (35%; belonging to the B and D-I type), which should be interpreted as medium sized farmsteads (or possible villa rustica; based on the additional site-aspects); (C) rural complexes with either an average of 650 - 700 m² (12%) or 500 - 800 m² (18%; belonging to the D-II and E-type), interpreted as large farmsteads or medium sized villa rustica; and the final group (D), which includes all of the complexes over 1,050 m² in size (15%; belonging to the E-type), interpreted as the truly large and well developed villa-complexes.

Based on these size-related outcomes we can thus conclude that the general picture provided by the building’s dimensional classes bear similarities to the site-interpretations provided by my personal typology (type-new; introduced in § 3.2.3 – 3.2.4; pp.30-34). Type A and B can indeed be seen as the farmsteads: type A being the smaller version, and B the larger one. The C-type, originally interpreted as villa rustica, is very comparable to the A-type. This underlines the link between small villa rustica and farmsteads is not surprising as types A through C seem to form consecutive size-groups (with distinct size-overlap). Larger, more developed villa rustica example can probably be found in the D-type, as it shows examples with larger dimensions (one even similar to the E-type). The last group, type E, indeed visualizes the true villa-group, but has a much wider range than originally expected. In general terms we can thus conclude that the total building size indeed represents a certain sub-division of the excavated examples, as already implemented within the defined site-classes.41

Another interesting aspect is related to the inclusion of an outer-area within the building complex, generally in the shape of an enclosed courtyard. When looking at the overall distribution of this characteristic within the dataset (attachments Pt. C-IV: table 26 and graph 30, p.113), it immediately becomes apparent that the presence of a courtyard within the complexes was a quite limited characteristic (only present in 26%). For the cases that do include the feature, three distinct (size) groups could be defined: (i) 0 - 300 m² (15%), (ii) 600 - 850 m² (5%) and (iii) 1,600 – 1,750 m² (8%). Although the lowest of these examples (0 - 300 m²) might still belong to a large farmstead, the two higher classes must be part of large villa-complexes. This is corroborated by the fact that only the D and E-types seem to provide suitable evidence for courtyard-included site-classes. The characteristic is thus assumed to be site-type bound. This could indicate that the presence of an external courtyard is related to site-function, and possibly wealth (with courtyards representing luxury).42

41 For a more detailed overview of the results, see attachments Pt. C-V: ‘Building Dimensions’, p.133-137.
42 For a more detailed overview of the results, see attachments Pt. C-V: ‘Building Courtyard’, p.130-133.
Building Shape

The second criterion used in excavated site-definitions is related to the general shape of the building. By use of the reconstructed ground plans (provided by the source-publications), the general building shape of the whole complex is described. Main classes within this characteristic are: rectangular, square, L-shaped and trapezoidal. In general terms, three distinct type-groups could be defined (see Figure 8; p.39): (i) the main, rectangular shape-group including almost half of the excavated cases (56%); (ii) a secondary group of additional examples, including square (18%), L-shaped (11%) and different sector ground plans (9%); and finally (iii) including only two examples, interpreted as trapezoidal and “unknown” (’[XXX]’; both 3% of the cases).43

This sub-division seems to correspond to the division as provide in the type-new typology (although not surprising, as the layout of the building is central to the typology). Almost all of the type-groups are mainly rectangular or square-rectangular in shape (type A till D). The more peculiar shapes are limited to the E / [0] (different sectors), and B-I types (L-shaped buildings). Overall, building shape thus seems to be a great interpretative tool for site-identification.44

---

43 Also see attachments Pt. C-IV: tables 24-25 and graph 28, p.112.
44 For a more detailed overview of the results, see attachments Pt. C-V: ‘Building Shape’, p.128-130.
3.3.3. Focus-Point #3 - Material evidence:

The final part of the analysis is related to the differences in material assemblage uncovered on-site, which can provide site-type specific characteristics. This discussion includes the following sub-parts, based on the primary functional interpretation of the material: architectural evidence, material evidence, ceramic shapes, and ceramic wares.

Architectural evidence

The first sub-variable to be discussed in light of the material assemblage is centred on the architectural evidence excavated on-site. This includes all kinds of objects or materials connected to the building itself, which could possibly be related to the buildings functional use. When looking at the general division of the material classes within the main building types (attachments table 30 and graphs 34-36, p.117), we can see that: the farmstead-type consists of a combination of ‘Roofing’ (i.e. roof tiles) and ‘Utility / Manufacture’ (i.e. drainage-channel and oven; pointing towards a combined agricultural and production use of the site). In contrast, the villa-type consists of a combination of ‘Elaborate Architecture’ (i.e. mosaic, cistern, tablinium, baths) and ‘Utility / Manufacture’ (i.e. millstones, olive-presses, settling tank). The villa rustica-type is, in its architectural evidence, very similar to the villa-type. It includes both ‘Utility / Manufacture’ (i.e. olive-presses, settling tanks, millstones, drainage-channels) and ‘Elaborate Architecture’ (mosaic, decorated plaster).

In essence, the site-classes are all fairly similar in their definition. In all of the classes, ‘Utility / Manufacture’ is one of the main object-classes. The only slight difference can thus be seen in the presence of evidence related to the ‘Elaborate Architecture’-class. Site-interpretation based solely on the available evidence.

45 The dataset includes: ‘Walling’ (37%), ‘Utility / Manufacture’ (15%), ‘Elaborate Architecture’ (9%) and ‘Roofing’ (8%). The “[Rest]” of the interpretative classes (31% in total), all include 2 – 7% of the cases.
architectural evidence is thus not a possibility. This is underlined by the fact that, when looking at the overall spread of material classes, this find-group is primarily made-up of three distinct types: bricks (29%), roof tiles (35%) and tufa blocks (29%), all of which seem irrelevant for the site-class definitions (as none of them provide particular functional information).46

Material evidence
The second sub-variable to be discussed in light of the site-assemblage is centred on the material evidence excavated on-site. These do not include artefact types of architectural or ceramic nature, but limits itself to functional objects (e.g. tools, luxurious items, jewellery etcetera) which give insight into the everyday life of the inhabitants. Unfortunately, most of the excavated cases included within the data-set are lacking evidence for this find-group: 68% percent are labelled as “[xxx]”. These cases either did not include such material types, or that they were simply unimportant enough to be mentioned in the source publication.

When sub-dividing these results in the site-type categories, we can see that they are just as difficult to interpret (attachments graphs 37-39, p.118). Farmstead–sites are represented by a combination of ‘Tools’ (i.e. loom-weight), ‘Glass’ and ‘Jewellery’-evidence, whilst the villa rustica only includes objects belonging to either the ‘Glass’ or ‘Tools’-type. For the sites labelled as ‘Villae’ the cases are even completely void of data on this subject. We should therefore conclude that the material evidence, based on the select set of functional objects, is simply lacking particular site-characteristics.47

Ceramic shapes
The third sub-variable to be discussed in light of the material assemblage is centred on the ceramic shapes excavated on-site. Based on the range and differentiation of these object, insight can be gained in both the functional-use and chronology of the excavated building. When looking at the general division of the ceramic shape-classes within the main building types, we can see that the “unknown”-group again is quite high (62%). Fortunately, this group is complemented by two main interpretative classes: storage-ware and table-ware.

When comparing this to the site-labels, we can see that the storage-wares are mainly of interest (attachments table 31 and graphs 40-42, p.119). The cases labelled as farmstead seem to combine both ‘Storage’ (i.e. dolium and pithos) with ‘Storage / Transport’-wares (i.e. amphora). The villae solely include a ‘Storage’-class as their main indicator (i.e. dolium). As for the villa rustica examples (i.e. the larger farmsteads as defined earlier on in this chapter), the class is again represented mainly by both ‘Storage’ (i.e. dolium) and ‘Storage / Transport’-wares (i.e. amphora).

Based on this evidence it can be concluded that the site-classes are represented quite well by the ceramic shapes uncovered on-site (especially the storage-wares). The differentiation between farmstead and villa-sites however, still remains quite difficult. Even though the presence of certain shape-groups varies slightly in relative amounts between the site-classes, both are represented by virtually the same ceramic assemblage. On its own, the pottery shapes can thus not differentiate between the site-classes.48

46 For a more detailed overview of the results, see attachments Pt. C-V: ‘Find Architecture’, p.138-142.
47 For a more detailed overview of the results, see attachments Pt. C-V: ‘Find Material’, p.143-144.
48 For a more detailed overview of the results, see attachments Pt. C-V: ‘Ceramic Shape’, p.145-146.
Ceramic wares
The fourth and final sub-variable to be discussed in light of the material assemblage is centred on the variety of ceramic wares excavated on-site. As was the case with the above mentioned ceramic shape-group, this analysis of the pottery wares can provide insight into the function, wealth and chronology of the excavated site. Again, not all excavated case-studies mention this material class (76% however does).

Some general observations in relation to the specific site-types could be distinguished (attachments table 32 and graphs 43-45, p.120). Both the farmstead and villa rustica-type include the same prominent ware-classes (in almost equal relative amounts): coarse-ware (11% vs. 15%), terra sigillata (15% vs. 18%), and vernici nera (17% vs. 15%). The only ware-type that does seem to be different is impasto (15% in farmsteads vs. 6% in villa rustica). Although this difference might be indicative of a difference in luxury between the two building-types (more “cheap” impasto included within the “simpler” farmsteads), it still does not provide us with sufficient information on ware-type. The cases labelled as true villae all provided an insufficient amount of data for a ware-type analysis, making it extremely difficult to get an indication of the pottery-wares that characterize the complexes.49

Find Assemblage – Concluding Remarks
After having discussed the individual material-groups, the results can easily be grouped together. The analysis of both the material evidence (p.40) and the ceramic wares (p.41) did not provide particular information that could help distinguish between farmstead and villa (rustica) sites. Unfortunately, this is also partially the case for the other two variables: architectural evidence (p.39) and ceramic shapes (p.40). Both site-classes (farmstead and villa) seem to have been made up of similar materials, and include almost identical ceramic assemblages. Some features are however (slightly more) distinct for either of the classes. Luxurious architectural elements, like marble or mosaics, seem to be restricted to villa sites, whilst farmsteads are mainly made up of (roof)tile assemblages. Both however mainly include storage (and / or transport) wares, making their functional classes not so distinctive.

The fact that the distinction between the site-classes is not really clear-cut is directly related to the inequality of the amount of data provided on each of the functional material classes (see Figure 9). In general we can see that: (i) architectural information is provided in almost 100% of the cases, and can thus be seen as a primary characteristic of excavated examples; (ii) the material evidence on specific objects is a less mentioned characteristic, only in one third of the cases; and (iii) both ceramic shape and ceramic ware are represented in half of the cases.

Although the outcome of (i) is quite hopeful, especially in the comparison between different excavated examples, characteristics (ii) and (iii) are less positive. In the best case scenario, 50% of the included cases are provided with any information on one of the three characteristics (without even going into the quality of the information). From this can be concluded that in the description of excavated examples, far out the most important source of information is the architectural information of the building (i.e. the layout of the building / ground plan) and the presence of certain architectural elements. Other material classes, like certain functional

49 For a more detailed overview of the results, see attachments Pt. C-V: ‘Ceramic Ware’, p.146-148.
objects, ceramic shapes or certain pottery wares are deemed less important for the interpretation of the building (or at least, in not all cases seen as interesting to be mentioned in the published excavation / site report). Altogether, this outcome is quite problematic for the comparison between excavated examples and survey results, as the architectural elements of the sites are not available for (or at least not reported / noted in the field) surveyed projects. Characteristics of surveyed sites are restricted to the analysis of ceramic material, which are (as seen here) less prominent in excavation reports.\(^{50}\)

3.3.4. Site-characteristics vs. site-types

Based on the outcomes of the discussed site-characteristics\(^{51}\), a set of generalised site-class descriptions could be defined. The description includes information on building size, shape and main material evidence. In combination with the type-new typology, this process led to the identification of three site-classes: (A) farmstead (small / medium), (B) villa rustica (i.e. large farmstead), (C) villa (large). The site-characteristics a summarized in table 7; p.44).

\textbf{(A) Farmstead (small / medium)}

The first building type represents most of the cases included in this analysis (22x; 65%). The farmsteads labelled as small to medium in size are placed at the lower-end of the rural (site-type) hierarchy (Type A and B). The sites are defined by an approximate building size of 100 - 200 m\(^2\) or 200 - 350 m\(^2\) (see attachments graph 31, p.115), with a rectangular or L-shaped ground plan. No direct evidence for an outer courtyard is present (except for the B-I sub-type). The material assemblage connected to the building-type can be sub-divided into four groups: (i) Architectural evidence, which includes ‘Roofing’ (i.e. roof tiles) and ‘Utility / Manufacture’ (i.e. drainage-channels and ovens); (ii) Material evidence, including ‘Tools’ (i.e. loom-weights), ‘Glass’ and (in some

\(^{50}\) For a more detailed overview of the results, see attachments Pt. C-V: ‘General Information per Group’, p.149-151.

\(^{51}\) A ‘Microsoft Access’-database (designed specifically for this chapter) made it possible to compare the individually labelled classes side-by-side. This data-base is available on request from the author.
rare cases) ‘Jewelry’; (iii) Ceramic shapes, which combines ‘Storage’ (i.e. dolium and pithos) with ‘Storage / Transport’-wares (i.e. amphora); and (iv) Ceramic wares, which include coarse-ware, terra sigillata, vernice nera, and impasto. Overall, the material assemblage present within these excavated examples thus point towards a combined agricultural and production use of the site.

(B) Villa Rustica (or large farmstead)
The second building type represents a more select number of the cases included in the data-set (6x; 18%). Generally labelled as large farmsteads (Type C and D), they are somewhat more developed than the earlier mentioned farmstead-class. The sites are defined by an approximate building size of 650 - 700 m² or 500 - 800 m², with a rectangular or square-rectangular ground plan. A (small) outer courtyard seems to be one of the defining features of this type, which has an approximate size of 0 - 300 m² (see attachments graph 32, p.115).

The material assemblage related to the building-type can also be sub-divided into four groups: (i) Architectural evidence, which includes the same objects as the farmstead-class; (ii) Material evidence, including ‘Tools’ (i.e. loom-weights) and ‘Glass’; (iii) Ceramic shapes, which combines ‘Storage’ (i.e. dolium) with ‘Storage / Transport’-wares (i.e. amphora)⁵²; and (iv) Ceramic wares, which include coarse-ware, terra sigillata and vernice nera. Overall, the material assemblage present within these excavated examples is thus very similar to the assemblage of that of the earlier mentioned farmstead-sites. The only difference seems to be found in the general layout and size of the complex (site-function largely seems comparable, at least as represented by the archaeological evidence).

(C) Villa (large)
This third and final building type represents the grandest examples included within the dataset, even though they are represented by the lowest number of case-studies (5x; 16%). The large villae (Type E) are defined by an approximate building size of at least 1,050 m² (see attachments graph 32, p.115). Although the buildings are generally rectangular in shape, it is the buildings’ internal division into functional-units (habitation vs. production) that is their most striking element. Their shape is therefore labelled as having different sectors. Like with the villa rustica-class, the villae all seem to include (at least) one courtyard, of varying size (600 - 850 m² or 1,600 – 1,750 m²). The material assemblage related to the building-type can be sub-divided into two groups, as the included case-studies did not provide sufficient evidence on the other aspects: (i) Architectural evidence, which includes ‘Elaborate Architecture’ (i.e. mosaic, cistern, tablinium, baths) and ‘Utility / Manufacture’ (i.e. millstones, olive-presses, settling tank); and (ii) Ceramic shapes, including mainly ‘Storage’-class material (i.e. dolium). Combined, this material assemblage presents a site-type that combined habitation, luxury and production elements.

⁵² Also almost identical to the farmstead-class.
### 3.4. Conclusion

#### 3.4.1. Farmsteads and villae in excavation data

From the data collected during the analysis, we can see that the results of the excavated cases are not as promising as the results seen in the previous chapter on survey-classification. Both the find material as the ceramic ware variables did not provide particular information that could help distinguish between farmstead and villa sites. The material classes were just too diverse (or in some cases identical), making definitive identification on material classes difficult. The only possible definable characteristics were found in the architectural and ceramic shape evidence, but led to a very generalised sub-division in types: luxurious architectural elements (e.g. marble or mosaics) were restricted to villa sites, whilst farmsteads were mainly made up of (roof)tile assemblages.

When considering all the cases included into the data-set, the most important identifier for the site-classes seemed to have been the ground plan that was uncovered. During excavations it seems to be common practice to first look at the setup of the building, then locate certain function-specific objects within the rooms, which eventually leads to the overall interpretation of the site.
Only when of the above mentioned elements are combined (material evidence, building ground plan and approximate size), we come to a subdivision in rural building types. The farmsteads are defined as the small to medium sized buildings (with possible courtyard), which provide both an agricultural (production; Ex-7.2, attachments p.100) and habitation function (Ex-2.1, attachments p.84). The villa rusticae are the somewhat larger buildings (with courtyard), similar in setup to the farmstead. They however do have specialist production areas (Ex-7.1, attachments p.99). In contrast, the villa are the largest rural site types, in which the complex is divided into two functional parts: the living quarters and the production rooms (Ex-7.1, attachments p.99 and Ex-7.3, attachments p.101).

3.4.2. The influence of project based methodologies

In addition to the analysis of the excavated examples and their site-characteristics, the data-set also gave insight in the influence of project based methodologies and site-specific circumstances on site-interpretation. The following part will address these methodological influences to illustrate how researchers are influenced in their site-interpretations.

One of the most prominent aspects is the use, or better said the lack, of a generalisation of terminology in the publication of excavated archaeological contexts. Although generalised site-labels (like farmstead or villa) are used readily, their interpretation is in most cases still based on local variables. 53 This lack of generalised terminology (even on a functional level54) leads to a high variety in site-classes. The intercomparison between excavated cases is therefore quite difficult. Slight differences in the implemented terminology (by either the original excavator or a later researcher) can thus lead to large differences in the true functional interpretation of the complex.

Another problematic aspect is that of the restricted area of investigation, apparent from some of the excavated contexts (e.g. Ex-2.2, Ex-5.3 and Ex-7.4; attachments p. 86 and 96). Due to limited time, funding, or the presence of current-day buildings on the ancient sites, some of the cases included within the data-set could not be excavated in their entirety. In cases where the ground plan of the building exceeds the confines of the excavation trenches, this could lead to a biased or incomplete view of the site. This is especially problematic when the site-typology is heavily reliant on architectural and ground plan data. Fortunately, most of the cases included within the data-set provided enough information to reconstruct the original complex.

A further difficulty in excavated examples is the site’s chronology. Although all of the projects included within the data-set mention generalised periods of habitation, not all discuss the aspect in the same level of detail. This aspect seem directly related to the way the archaeological material is published. Some researchers, like in the case of Ex-5.3 (see attachments p.96), decided for instance not to publish the full range of artefacts in the original field report. 55

The fourth aspect is related to the limited comparative scope the excavated contexts have (especially in relation to the earlier discussed survey-examples). As most excavation projects limit their view to the

53 As was the case in the earlier analysis of surveyed examples (Chapter 2).
54 Differentiating for example between ’storage’ and ’kitchen-ware’.
55 As the project was intended to interpret the settlement-history of the area (influenced probably by the projects survey-orientated background), and not a detailed detailed reconstruction of the trade-network.
excavation of a single building or site, a sites’ status, functionality and hierarchical order within the overall regional settlement system is difficult to determine. An exception to the rule is of course Ex-3.4 (see attachments p.91), in which over a hundred farms are investigated side-by-side to determine specific building-status and function.

Another important aspect is that of post-depositional factors. In some of the cases included within the data-set the interpretation of the complex is limited due to the high amount of site-disturbances (e.g. deep ploughing or modern construction). These processes led to a grave lack in functional identifiable and chronological interpretable contexts in the complexes, which could compromise the reliability of the sites interpretation (e.g. Ex-2.2; attachments p.86).

The sixth and final aspect of influence concerns the unequal representation of certain material classes. Not every piece of archaeological evidence, or each defining site-specific characteristic, is discussed in equal detail. In general, the source of information deemed as most important is the architectural information of the building (i.e. the layout of the building / ground plan), in combination with the presence of certain architectural elements (e.g. an outer courtyard). Other material classes are deemed less important for the interpretation of the building and are discussed more briefly in the eventual site-publications.56

3.4.3. Addressing the research questions

Now that the data-set has been introduced, the analysis has been conducted, and the outcomes discussed, the research question can be addressed one last time. Overall, the analysis showed that most excavated (rural) sites are interpreted on the basis of three aspects: (1) the defined building dimensions (including internal, external and total building surface), (2) the overall building shape, and (3) the differences in material assemblage (i.e. architectural evidence, material evidence, ceramic shapes, and ceramic wares). It should be noted that these site-characteristics, at least theoretically, follow the same interpretative lines used to determine site-function in survey-projects (Chapter 2 - §2.4.2; p.15). The degree, in which these aspects are deemed important for excavated examples, differs however greatly per aspect.

First we will consider building dimension (which in essence is quite similar to scatter-sizes as used in survey projects). Although the individual cases differed heavily in size, certain size-groups could be defined: in general terms labelled as small / medium farmsteads, big villae rusticae and large villa complexes. This division is in line with the type –new typology I setup specifically for this thesis, making building dimensions one of the most promising site-characteristics for excavated examples.

As for the material assemblage and ground plan aspects of site-interpretation with excavated contexts, these divisions are not always as clear-cut. Although the ground plan types indicate a distinct difference between farmsteads and villae (rectangular vs. different sectors), the division between farmsteads and villae rusticae is hard to find (both encompassing similar building shapes). It turned out to be equally difficult to assign site-types based on the find-assemblages. Both site-classes (farm and villa) seem to have been made up of similar materials, including almost identical ceramic assemblages. Some features, are however (slightly more) distinct for either of the classes. Luxurious architectural elements, like marble or

56 An outcome that is in sharp contrast with the surveyed-examples, which lack the general ground plan, and base their interpretation mainly on the present pottery-assemblage.
mosaics, seem to be restricted to villa sites, whilst farmsteads are mainly made up of (roof)tile assemblages. Both however, seem to include storage (and or transport) wares for the large part, making their functional classes not so distinctive.

The final part of this conclusion will deal with the methodological issues related to the excavation of rural sites: i.e. “How does methodology influence the outcomes of the research?” and “What does this say about the possibility of one generalised site-classification scheme?”. Throughout this chapter we have seen that the publications of excavated contexts still lack a generalisation of terminology. Even despite the implementation of generalised site-labels (i.e. farm or villa), the interpretation is still based on local variables. In combination with the limited comparative scope of excavation projects (especially when compared to the earlier discussed survey-examples), one generally accepted site-definition seems to be far away.

To conclude and address the main question related to this chapter (“How are Republican ‘farmsteads’ and ‘villae’ defined in archaeological excavations (i.e. most commonly used site-characteristics)?”), the answer is as follows: the differentiation between farmsteads, villae rusticae and villa-sites, based solely on the uncovered site-assemblages, is quite difficult. In most of the included cases the sites’ interpretation is based on the presence of one or two particular objects (or object-classes), in relation to the general ground plan of the building. Part of this is connected to the selective nature in the excavation process: in the case of rescue archaeology only certain contexts are excavated. The described analysis underlines the importance of a visual inspection (by looking at the ground plan) of the archaeological features in addition to the material finds. Such an interpretative tool might be able to bridge the gap between excavation and survey results, although only in cases where the archaeological data is recorded in high enough resolution (using scatter-maps in which particular activity areas within individual sites can be distinguished).

3.4.4. The next step

Now that we have looked at both surveyed and excavated examples of rural Republican sites, we have to conclude that their type-interpretation is not always as straightforward. Even though the definitions provided by most scholars are relatively generalized, the archaeological reality is not as clear-cut (the material difference between farmsteads and villae seems quite small). Part of this might be related to the low amount of detailed published excavated farmsteads, which unfortunately hold back the research into such smaller rural sites. This in turn leads to the exact same problem I want to address in this thesis (i.e. the lack of properly discussed site-classifications for this site-type). Only when more of such sites are investigated, on a much larger scale, can general conclusions be drawn (a fact already attested by Jones in 1963, when he investigated Monte Forco - Site 154).

A comparative project combining the two field methodologies, might be the solution. For the next chapter I will therefore focus on another, already finished comparative project: The Centocelle-project. This perfect example of the implementation of a combined strategy to investigate a rural (Republican) landscape was conducted in the 1990’s and first half of the 2000’s, in one of the suburbs of Rome. By combining a set of preliminary field surveys with systematic excavations and test-trenches, this project can show how the combination of both methodologies works in a real-life situation (and show which difficulties still need to be overcome).
Chapter 4:  
The Centocelle case-study

4.1. Introduction

4.1.1. General introduction
Both the chapter on survey (Chapter 2) as the one on excavated examples (Chapter 3) have shown that the site-class definitions as currently implemented in research projects are not as clear-cut as one would think. Both methodologies use a specific set of site-characteristics that help differentiate between site-types. For survey-projects these seem to boil down to three main site-type characteristics: (1) the presence / absence of certain architectural indicators (indicating functionality and social status), (2) the differences in the extent of the artefact concentrations (i.e. scatter-size), and (3) the differences in ceramic composition of the archaeological contexts (i.e. material assemblage). Together, they present a quite natural but idealised division of site-classes, in which the simple farmsteads (predominantly indicated by storage wares) are differentiated from elaborate villa sites on the presence of luxurious materials.

The site-type characteristics used within excavated examples are similar, but differ slightly. They focus on the following three characteristics: (i) the building dimensions (including internal, external and total building surface), (ii) the overall building shape, and (iii) the differences in material assemblage (i.e. architectural evidence, material evidence, ceramic shapes, and ceramic wares). Analysis showed that both the buildings size and shape are indeed representative of a sub-division in building types. The material assemblages within excavated examples are less reliant, and primarily based on architectural evidence and certain ceramic shapes.

To test if these different site-characteristic and material definitions truly hold-up in a ‘real-world’ example, this coming chapter will address a case-study that incorporated both survey- and excavation-methodologies: the Centocelle-project. Conducted in the 1990’s and first half of the 2000’s, this project used a comparative approach to investigate a rural (Republican) landscape. The project makes clear how survey can complement an excavation (and vice versa), but also how different methodologies can lead to surprisingly different results. Because of this it can address all the methodological questions that were encountered in the earlier chapters of this thesis.

4.1.2. Main research questions
In accordance to the above mentioned problems, this chapter will focus on the research questions related to the archaeological site-classifications implemented within a combined archaeological approach (including survey, excavation and geophysical-analysis of the area). As the Centocelle-Project seems to be the perfect case-study for such an approach, the main research question will therefore be defined as followed: (vii) “Is the evidence from both methodologies (survey / excavation) comparable in the case of Centocelle?” In other words, does the archaeological material uncovered by both methods lead to similar results? And are the rural
sites defined in a similar way? The accompanying sub-questions will support this analysis by dealing directly with either methodology.

In relation to the survey-part of the Centocelle-project, this chapter will address both the scatter-size and material assemblage on the rural sites located on the Centocelle-plateau. Afterwards, these site-characteristics will be compared to the conclusions drawn in the earlier survey chapter of this thesis, to determine whether: (viii) “These site-definitions are comparable to the ones defined in the survey-chapter (chapter 2) of this thesis?”.

The setup of the excavation-part of the Centocelle chapter is similar, and addresses questions on building dimensions, general shape and material assemblage. After all, what are the general site-characteristics of the excavated rural sites included in the Centocelle-project? Afterwards, these characteristics are again compared to the results of the excavation chapter of this thesis: (ix) “Are these site-definitions comparable to the ones defined in the excavation-chapter (chapter 3) of this thesis?”.

In addition to the above mentioned subjects, this chapter will also comment on the methodological setup of the Centocelle-Project. Aspects like the comparability of the material and possibilities of such a comparative approach will of course be addressed.

4.1.3. Introduction of the Centocelle-Project

The Centocelle-project (as the case-study will be referred to from this point onwards) was a preventive archaeological research campaign of a Republican and Imperial rural landscape south of Rome. Large scale expansion of the modern urban landscape threatened the archaeological record, leading to a thorough investigation of the area.\(^{57}\) Two main aims were central to the project: (A) an archaeological reconstruction of the territory (which would include the re-evaluation of material uncovered during earlier investigations and building-campaigns) and (B) the realization of an (archaeological) park on the site (for the preservation and valorisation of the ancient landscape).

After four consecutive years of fieldwork (from 1993 onwards) the research team had investigated an area of app. 300 ha. Unfortunately, part of the initially chosen research area could not be excavated, surveyed or otherwise investigated due to the military airbase covering part of the plateau. A range of research methods was therefore implemented to maximize the data collected from the accessible area. The project incorporated geophysical prospection, cartography, (pedological) field surveys, test-trenches and a large scale excavation of the uncovered archaeological sites (conducted by senior archaeologists and students of ‘La Sapienza’; University of Rome). Through the combination of these diverse methods a diachronical reconstruction of the area can be made. After an additional three years of analysing and interpreting the data, a three-volume book series was published.

4.1.4. Methodologies implemented by the Centocelle-Project

In essence, the archaeological researchers working on the plateau used a ‘comparative approach’. The implemented methods can be sub-divided into two classes: preliminary desktop-research and archaeological

\(^{57}\) Executed by the ‘Soprintendenza Speciale per i Beni Archeologici di Roma’ (S.S.B.A.R.), with financial backup of the City Council of Rome, under the scientific supervision of the archaeologists Patrizia Gioia & Rita Volpe.
field-campaigns. During the initial stages of the research project a thorough desktop-study was conducted, which included the re-evaluation of historical literary sources, excavation reports, historical / geological maps and photographic material (including aerial photographs from 1923; Gioia & Volpe 2004, 152). Together, these documents formed an overview of the historical and archaeological landscape, by documenting recognizable landscape features. They also formed the base-maps of the Centocelle GIS-map, used to geo-reference the materials collected and features encountered.

The practical part of the project also included a variety of methods: field surveys, excavations, test-trenches and geological prospection (e.g. augering and electro-magnetometry). Most notable within this approach was the implementation of a systematic block-survey (Gioia & Volpe 2004, 37). Based on the results of these field surveys the researchers planned a series of test-trenches and full-scale excavations to gain more insight into still buried archaeological features. Eventually, 10% of the surveyed area was investigated through test-trenches and excavations. Aside from the archaeological features uncovered in the test-trenches, attention was given to the geomorphology and stratigraphical build-up of the soil.

4.2. Method

4.2.1. Data-collection in the Centocelle-Project

After the fieldwork for the Centocelle-project had been completed, the research team developed an overall digital database: Centocelle-DBMS (Database Management System). This system was intended to systematically archive, facilitate and combine the different data-sets collected during both the desktop-study and the archaeological fieldwork. Through a connected Geographical Information System (GIS), which included the different cartographic materials, all data could be spatially manipulated and interpreted. Unfortunately this database has not (yet) been made available for scholars outside the project. Presumably, this is related to the fact that not all of the material is published (or even processed). I will therefore rely on the data published in the first two books of the series, which include find-lists, excavation plans, and site-density maps.

4.2.2. The three main investigative areas (introduction)

During the Centocelle-project areas of archaeological interest were identified, associated with the republican presence on the plateau. Three of these sites are of special interest for this thesis: [Area I] - ‘Area S.5’ (a small agricultural building from the Republican period); [Area II] - ‘Villa ad duas lauros’ (the most prominent archaeological feature on the plateau); and [Area III] - ‘Villa della Piscina’ (a large villa-complex with smaller Republican phase). The three areas will be introduced briefly below. A more detailed overview of these areas and their habitation-phases is included in the attachments (Pt. D-I: ‘Overview of human activity’, pp.152-159).

[Area I] - ‘Area S.5’

After a series of preliminary test trenches (on the eastern side of the plateau), archaeological researchers had enough evidence to presume a large Roman building located to the east of the ‘Villa Ad duas lauros’ (Area II; 58 Surprising, as most Italian teams implement a site-based methodology in their surveys.)
discussed below). Unfortunately, a complete excavation of the area showed that only the foundations and ground traces had survived the years of intense ploughing (both ancient and modern). Even the deepest, most ancient material was severely damaged by these activities, making definite interpretation of the archaeological phases quite difficult. What could however be identified was the agricultural use of the area, represented by a system of cultivation trenches cut into the bedrock. A main problem is the absence of stratigraphic relations between the ground traces and material culture (which seemed to be lacking in the area, as most of the original surface had been swept away).

[Area II] - ‘Villa ad duas lauros’

The (pre-)Roman ‘Villa Ad duas lauros’, the most prominent archaeological feature on the Centocelle plateau, was built on an area previously occupied by features from the 3rd to 2nd century B.C. These features, which are almost completely disturbed by the construction of the latter villa, could partially be identified on the basis of uncovered foundation walls. Smaller walls within the overall ground-plan, all with a distinctively different orientation, are indicative of the earlier building phases. After initial investigation of the area it became clear that the habitation of the area dated between the 3rd century B.C. and 5th century A.D. During this time the complex was presumably connected with the other structures on the plateau (through a network of smaller access-ways).

[Area III] - ‘Villa della Piscina’

This Republican / Imperial villa, located on the North-Western margin of the plateau, derives its name from the distinctive large pond that was part of a later phase of the complex. After the building’s initial discovery in the 1930-campaign, the new excavation and (field) survey aimed at determining the overall dimensions of the complex and at recording the archaeological stratigraphy. During the survey project 17,700 m² was explored (all located within the 25,000 m² area explored earlier during the 1930’s campaign). Based on the results of this first exploration, six trenches of different dimensions were placed within the confines of the site, encompassing an area of 7,000 m² (40% of the area explored by survey). In these trenches all the architectural elements (foundations) were investigated in detail. The researchers decided however to excavate only certain layered deposits within the features described above (i.e. the deposits centred on the functional interpretation of the individual rooms).

4.2.3. Surveying the Centocelle-plateau

Central to the Centocelle-project was the preliminary field survey, conducted before the large scale excavations and test-trenches. As the survey was mainly intended to provide the most suitable locations for in-depth analysis (i.e. excavation of sites), a map of predicted archaeological values (similar to the Dutch I.K.A.W. 59) was its final outcome. By mapping known archaeological evidence, modern human interventions and information gathered by geological augering, a systematic survey grid could be devised that covered the entire plateau. By avoiding areas of the plateau that were covered up by large modern soil packages (like the SE-part) and focusing on high-value areas, the later systematic field explorations could be planned very efficiently (maximizing their potential outcome).

As the plateau had been ploughed on a yearly basis with a superficial plough, the area was perfectly suited for systematic survey charting. The eventual grid that covered an area of approximately 32 ha (= 317,931 m²), divided into 115 units. To assure homogeneity in soil, geomorphology and surface-conditions within the individual units, their size was kept to 2,500 m² (50 x 50 m). In the end, a total of 25,734 pieces was collected, leading to an average of 243 per unit (0.08 pieces per square meter). The sites (i.e. the recognizable concentrations) in which archaeological material was encountered ranged between 25 x 25 m – 50 x 50 m.

The collected material can be sub-divided into three main classes: lithics, ceramics and coins. The second class, ceramics (25,480x pieces) provided a historical overview that could be used during the excavation-phase of the project. In addition, the material collected provided a typology and chronology of the material, bringing to light certain “fossili guida”. There are however two problems associated with the ceramic material: (i) most of the pieces could not be dated precisely (<5% could be dated within a range of 200 years), and (ii) the researchers had no permission to place test-trenches in areas beyond the plateau to verify (date-ranges of) the material assemblage collected in the region. Despite these connotations, the ceramic material will form the basis of the analysis conducted within this chapter. The two other classes, (paleo)lithics (247x pieces) and coins (7x pieces) will not be discussed here (as they are not of interest to my research questions.

4.2.4. The Chi²-analysis

Most (if not all) archaeological field surveys produce a set of density-maps as the end result of their investigation. These maps provide an overview of the spread of archaeological material over the surface of ancient sites. The way these artefact distributions are however visualized, is severely influenced by both fieldwork intensity and survival conditions (Harvey 1969, 377; in: Hodder & Orton 1976, 4). Interpreting the maps is therefore a key element, in which both the areas with high amounts of material, as well as the blank areas on the map should be taken into account.

One way to approach the archaeological surface data is to determine if the differences in the material densities are truly relevant (i.e. is a material-class truly present in higher amounts on-site than in the surrounding survey units?). To test this, the relative amount of the specific material class should be compared between the units. One could either compare the units one-to-one, or define an average amount for the whole survey area (i.e. the ‘norm-value’) and compare this to the individual units in a GIS. The latter method was chosen, making use of a Chi-square test to calculate the differences.

A Chi-square test consists of a series of calculations to determine if the observed difference between two samples is caused by randomness or a (still to be identified) effect. Central to this is the postulation of the so called ‘null hypothesis’, which together with the significance level determines when the hypothesis is either rejected or accepted (generally a value between 1% and 5%). If the result exceeds the significance level, the null-hypothesis will be rejected. In other words, the Chi-square test checks if the identified feature is statistically significant (Hodder & Orton 1976, 16).

In order to determine if the differences in material densities are located there due to a historical process (and not randomness), the material counts of the individual units will be compared to the average-value of the area. The total find-counts will therefore be calculated, and divided by the number of units. To assure that the data-set is not biased, I decided to implement a dualistic approach: combining both a Chi-
square test based on the units mean (a general sum of all numbers included in the batch, divided by the total number of cases the group is made up of) and median (the middle number within the batch, determined by ordering all of the included cases from high-to-low; Drennan 1996, 19). Theoretically, such a combined approach is more reliable as the average (i.e. ‘mean’) can be heavily influenced by the amount and range of ‘outliers’ (i.e. extremely higher or lower examples than the other included cases), whilst the median is entirely unaffected by these entries (Drennan 1996, 20).

The spatial maps provided by the Chi-square analysis will be added in the attachments (Pt. D-II: ‘GIS: Spatial Analysis Maps’, pp.160-181). They will show both the statistically higher units (i.e. positive residual) and statistically lower (negative residual; Hodder & Orton 1976, 117). Including both is essential, as it is quite useful to plot the negative outcomes on distribution maps amongst the contemporaneous sites. By analysing them it can often be shown whether a ‘blank’ area on a map is the result of a lack of excavated sites or of a real absence of the variable from sites in that area (Hodder & Orton 1976, 237-238). As not all surveyed units were of equal size, the find-amounts were re-calculated per hectare. This made the numeral values easily comparable.

### 4.3. Analysis

#### 4.3.1. Verifying surface data (Unit #25 case-study)

Before discussing the outcomes of the Chi-square analysis (in combination with the excavation results on the individual sites), I want to briefly address the case-study of Unit #25 (Gioia & Volpe 2004, 193-216). This sub-part of the Centocelle-project implemented a strikingly similar methodological approach as my thesis. Within the confines of Unit #25 the researchers conducted a detailed comparison between the surface finds recovered during the field survey and the materials collected during the sub-surface excavation (both in function and chronology). In order to provide insight into the specific material distribution, the researchers decided to sub-divide the 2,500 m² unit into 10 x 10 m blocks (i.e. an intensive survey method).

The following material classes were identified during this investigation: Archaic / Early Republican material (concentrated within the centre of the unit, identified as the residential area of the complex), ARS-ware (located at the margins of the unit, determining the chronological range of the complex), dolia (placed in the production area of the complex), amphorae (located in the aula / courtyard of the building) and marble-pieces (uncovered in the southern part of the complex, probably used as pavements). Combined, these materials visualised part of the earlier phases of the villa ad duas lauros, linking surface and sub-surface finds (see Figure 10).

Although the results of this detailed (‘multi-scalar’) investigation look promising, it should be noted that these distinct dispersions could never have been identified within a more extensive survey grid (e.g. in units larger than 10 x 10 m). The method is also too labour intensive to implement on a larger scale, not to mention the whole plateau. The researchers therefore concluded that the implementation of such a method is only feasible in areas where there is already a suspicion of building (of specific site type / function). The

---

60 The central unit of the ‘Villa ad duas lauros’-site.
discussed case-study should thus been seen as a methodological study of the potential of intensive survey grids, and a very useful comparison study for further research.

4.3.2. Excavation results of the three main areas

[Area I] - ‘Area S.5’

Due to (for me) unknown reasons, the survey units which included Area S.5 were not surveyed during the course of the Centocelle-project. This means no direct comparison could be made between the sub-surface and surface archaeological finds. Archaeological finds uncovered during the excavation do however give a quite detailed account of an archaic building and accompanying cultivation system. The material assemblage consisted mainly of tile fragments, tufa-blocks, dolia and other (household) ceramics. This building will not be discussed in further detail in this thesis, but can be found in Gioia & Volpe (2004, 303-308).
**Area II** - *Villa ad duas lauros*

The archaeological evidence in this area can be divided into two main building phases: the true villa-phase, and the simple farmstead prior to this complex. During the earliest phase of the complex (3rd – 2nd century B.C.) the building should probably be interpreted as a medium sized farm. The assemblage found on site consists mainly of ceramic debris, foundation walls and flooring. In addition, traces of an agricultural trench system were also found.

The initial building was rectangular in shape (encompassing app. 400 m²), showing resemblance to either A-II or D-I of the type-new typology (see Figure 11). It showed no traces of a rustic / rural function. The floor-level consists of a series of tufa-slabs, and the walls were constructed of tufa-blocks (peperino and nенfro). Unfortunately, not all of the rooms could be excavated, as some of them continued under the modern military base. The material finds connected to this phase include: impasto, vernice nera, kitchen-ware and amphorae (Gioia & Volpe 2004, 368). During the use of the building, some small changes were made in the ground plan: a restructuring of the earlier walls, the addition of a series of new porticoes, and a re-arrangement of the delimitating wall (eastern side). Together, these changes might indicate a change of the function of the building to a more agricultural nature.

The true ‘Villa Ad Duas Lauros’ (1st century B.C.), which gave the site its name, was constructed after the abandonment of the above discussed farmstead. This new building is completely different in style, organisation and orientation: it was elongated rectangular, like the D-I type (app. 1,000 m²; see Figure 12). It follows the traditional Roman villa-scheme (complete with atrium, peristyle and large garden area). The architectural elements consisted of: walls (opus incertum), flooring (lithostroton) and mosaics. A cuniculus (cistern with system of tunnels) was found below the villa, cut into the tufa. The construction of the villa was based on the building technique and materials found within the foundation layer (impasto, vernice nera, painted-ware, cooking-ware, kitchen-ware and amphorae).

---

61 The description of this building will be limited to the Republican (and early Imperial) period, later developments and adaptations of the complex can be found in Centocelle Book - Part II (Gioia & Volpe 2004).
[Area III] - ‘Villa della Piscina’
This Republican / Imperial villa derives its name from the distinctive large pond that was part of a later phase of the complex. Despite the fact that most of the archaeological traces have been lost (or brought back to the mere height of a few centimetres) by modern day agricultural activity, the remaining evidence still adds up to a site of considerable size. The villa had a total surface area of 25,000 m² (including the delimiting fencing walls); the adjacent garden / vineyard an additional 12,000 m². Chronologically, the structure stretches from 6th century B.C. to 4th century A.D.

Period I (end VI-IV century B.C.)
This first period is defined by a structure with a rectangular floor plan (11 x 5.30 m; app. 60 m²), orientated towards the NW-SE (and preceding the villa-complex). The structure itself seems to have been subdivided into two parts / rooms. Despite the fragmented nature of the archaeological evidence from this period, the importance of this early evidence should not be underestimated. The area seems to be designated for the processing and storage of agricultural produce. This activity concentrates around the later centre of villa, underlining the continuity of the production activity of the complex. Unfortunately, no ground plan was included in the Centocelle-publication for this period.

Period II (III-II century B.C.)
This second period is marked by the construction of the earliest part of the villa, linked to an area used in the cultivation of agricultural products (based on a system of agricultural trenches). The building had an elongated rectangular ground plan (app. 900 m²), resembling the D-types of the building typology (see Figure 13). The complex was internally divided into an octagonal system of rooms centred on a large square courtyard. Most of the farmsteads from this period seem to follow a similar arrangement, as defined by Volpe (2000, 191) and Musco & Zaccagni (1985, 90-106). Outside the initial confines of the complex an area for the cultivation of agricultural products was uncovered, possibly a vineyard (covering an area of 3,900 m²). Archaeobotanical evidence points to the cultivation of oats, legumes, and grapes (Gioia & Volpe 2004, 410). The ceramic materials belonging to period is listed in the table below (see Table 8; p.57). 63

62 For a more detailed overview of the specific archaeological materials per building-phase, see attachments pp.155-156.
63 For a more detailed overview of the specific archaeological materials per building-phase, see attachments pp.158-159.
**Period III (end II-I century B.C.)**

In the third period the complex undergoes major restructuring, attributed to at least three different phases (not discussed in detail here). The construction is mainly centred on the outside area of the villa: the construction of a large pond and a new arrangement of the vineyard (with associated drainage system and delimiting wall). The building itself also expands to an area of 1,400 m² (see Figure 14). The materials uncovered from the deposits dating to phase 2 and 3 can be found in the tables below (Table 9 – 10; pp.57-58).

**Table 8: The ceramics of 'Villa della Piscina', Period II – Phase 1 (Gioia & Volpe 2004, 395).**

<table>
<thead>
<tr>
<th>Ceramic type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vernice Nera</td>
<td>1%</td>
</tr>
<tr>
<td>Pareti Sottili (thin-walled)</td>
<td>30%</td>
</tr>
<tr>
<td>Cera. Comune da mensa (kitchen-ware)</td>
<td>21%</td>
</tr>
<tr>
<td>Cera. Comune da fuoco (cooking-ware)</td>
<td>30%</td>
</tr>
<tr>
<td>Amphora</td>
<td>16%</td>
</tr>
<tr>
<td>Dolia</td>
<td>2%</td>
</tr>
<tr>
<td>Lamps</td>
<td>[-]</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Table 9: The ceramics of 'Villa della Piscina', Period III – Phase 2 (Gioia & Volpe 2004, 440).**

<table>
<thead>
<tr>
<th>Ceramic type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vernice Nera</td>
<td>7%</td>
</tr>
<tr>
<td>Pareti Sottili (thin-walled)</td>
<td>14%</td>
</tr>
<tr>
<td>Cera. Comune da mensa (kitchen-ware)</td>
<td>31%</td>
</tr>
<tr>
<td>Cera. Comune da fuoco (cooking-ware)</td>
<td>30%</td>
</tr>
<tr>
<td>Amphora</td>
<td>17%</td>
</tr>
<tr>
<td>Dolia</td>
<td>[-]</td>
</tr>
<tr>
<td>Lamps</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Figure 14: The 'Villa della Piscina', Period III – Phase 2 (Gioia & Volpe 2004, 439).**
4.3.3. Analysis of the spatial maps

The outcomes of the spatial analysis combining ArcGIS and the Chi-square test (including both the mean and median), will be discussed here. The spatial maps covering the statistical analysis can be found in the attachments of this chapter (Pt. D-II: ‘GIS: Spatial Analysis Maps’, pp.160-181). As not all of the materials included within the data-set are of relevance for this analysis, only the most promising will be discussed here (for a full overview of the analysed results, see Attachments Pt. D-III: ‘Spatial Analysis Maps: Text version’, pp.182-184).

When looking at the total dispersion of all pottery types on the Centocelle-plateau (ranging from the Archaic and Republican period; see attachments figures 73 & 74, p.180), we can see that most of the material is converging on site II (‘Villa ad duas lauros’), and in a lower amount on site III (‘Villa della Piscina’). The site-centres (as defined by the large scale excavations in the area) will therefore be used to add in the interpretation of the density maps (and chi-square test). Unit #25 will be regarded as the centre of site II, unit #61 as the centre of site III (for their exact placement on the Centocelle-plateau, see attachments figure 36, p.161). Some additional areas of interest are also visible, but will be discussed at the end of this paragraph. We will first discuss both sites in more detail.

Before discussing the interpretation of the results from the Chi-square test, a short introduction into this method will be given. In order to make use of the Chi-square test, the value of each survey unit’s material classes are calculated in respect to the overall mean of this find-type (i.e. the average of survey units combined). This calculation provides a value that indicates whether the encountered amount of material is more likely to be coincidental (‘random’) or the result of actual human activity in the area. By plotting these values on the survey-grid, and comparing them to the placement of the sites located by the excavations and test-trenches in the area, we can determine if there is a correlation between the two results. The maps included in the attachments use a colour-code to represent how high the probability is that the material spread is caused by human activity: ‘yellow’ marking a low probability, ‘red’ a high probability. The latter values could then be appointed as sites located through survey analysis.

First off is site II. Looking at the material spread of the ceramics and building material (now coloured by the Chi-square values), we can see that most of the materials are indeed present in the survey-units on and near the site. Thanks to the Chi-square values, we can say that these units are most likely to be the result of human

<table>
<thead>
<tr>
<th>Ceramic type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vernice Nera</td>
<td>25%</td>
</tr>
<tr>
<td>Pareti Sottili (thin-walled)</td>
<td>5%</td>
</tr>
<tr>
<td>Cera. Comune da mensa (kitchen-ware)</td>
<td>18%</td>
</tr>
<tr>
<td>Cera. Comune da fuoco (cooking-ware)</td>
<td>49%</td>
</tr>
<tr>
<td>Amphora</td>
<td>3%</td>
</tr>
<tr>
<td>Dolia</td>
<td>[-]</td>
</tr>
<tr>
<td>Lamps</td>
<td>[-]</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Table 10: The ceramics of ‘Villa della Piscina’, Period III – Phase 3 (Gioia & Volpe 2004, 445).*
activity, and therefore are able to link the survey material directly to the excavated data. The material classes of bricks / (roof) tiles, floors / pavement, cooking-ware, vernice nera and amphorae all are also indicative of the site in the density maps (showing a relevant deviation from the norm; see attachments figures 39-40, 47-48, 51-52, 67-68, 71-72). None of these however, are confined to the centre of the earlier farmstead (as was the case in the excavation results; see §4.3.2). Especially the amphora-class has a spatial-dispersion much higher than expected from the excavated context (see attachments figure 39, p.163). This class therefore probably represents the later villa-phase of the complex.

The only material class to truly coincide with the centre of site II is sigillata Italica (see attachments figures 55-56, p.171). Others, like coarse-ware and the additional fine-wares completely avoid the site (and its centre; see attachments figures 43-44 and 59-60, p.165 & 173). Of particular interest here is the dispersion of dolia. Although this ceramic type limits itself to the known sites on the plateau (based on excavations and test-trenches), the centre of site II is however completely void of material, whilst the surrounding units have a quite high value (see attachments figures 63-64, p.175). Although the reason behind this anomaly is unknown, it might be possible that the material was simply not brought to the surface by ploughing activity, or that the material was simply not there. The latter is more likely as no dolia-sherds were found in the excavation (see table 8, p.57). Either the storage area of the building must therefore have been placed somewhere else in the complex, or the storage was limited to the use of amphorae, which were uncovered on-site in relatively high amounts.

Concluding for site II we can thus say that the surface material does give a rough outline of the archaeological site (though mainly the later Imperial phase), but lacks the potential to pinpoint the exact areas of habitation. All evidence combined, leads us to the fact that the size-approximations based on the density-maps are at the high end. This is probably caused by the fact that the materials primarily rather represent the later stage of the villa, than the earlier farmstead phase.

As for site III, the material spread is quite similar. Some additional material classes however have the potential to define the outline of the site in more detail. The spread of the following material classes: bricks / (roof) tiles, floors / pavement, amphorae, cooking-ware and dolia (showing a relevant deviation from the norm; see attachments figures 39-40, 47-48, 63-64, 67-68, 71-72), all seem to coincide with the site-limits as defined by the excavation-part of the project (centred in unit #61). The vernice nera-class seems to be the only one that is located on site, but spreads further than these defined limits (see attachments figure 51-52, p.169). All other ceramic-classes (sigillata Italica, additional fine-wares and coarse-ware) are simply not found on-site (see attachments figures 43-44, 55-56, 59-60).

On a concluding note for site III we can thus say that the surface material provides ample amount of evidence for site-location practices (much more than was the case with site II). The size-approximations (see table 11; p.62) are therefore also much more convincing and applicable.

Besides the sites discussed above, some of the survey-units outside the excavated buildings also provided high-probability-values (i.e. material densities that were higher than the area’s average). These areas include: units #36, #39, #70, #76 and #91; which all show relatively high counts of amphorae, dolia and bricks / (roof) tiles.
After a comparison of these results to the outcomes of the test-trenches, I could unfortunately not find suitable solutions for their high presence in the density maps. I therefore have to conclude that these “proposed features” are related to (modern day) ploughing and ground-moving activities. These activities re-located and dispersed the archaeological material, especially towards the central part of the Centocelle-plateau.

A final aspect worth mentioning is the less-than-optimal placement of the survey units, especially with regards to the material spread on site III. Although I realise that the surveyors were limited in the placement of their survey grid, due to presence of present-day buildings, the lack of evidence on these sides might have influenced the eventual outcomes (as visualised on the density maps). The whole western part of site III, for instance, is missing. It is therefore possible that the material spread would have looked different if these other units would have been included in the analysis (leading to a dispersion resembling that of site III). The below presented figure 15 proposes a better placement of additional survey units, to complement the data-set.

**Figure 15:** An adaptation of the survey-grid, showing where additional units would be preferred (to provide a clearer image of both 'Site II' and 'Site III' (the sites are marked by the Roman-numerals; the new survey units by the dotted-lines).

### 4.4. Conclusion

#### 4.4.1. Excavation vs. Survey

Now that both the excavated and surveyed contexts have been discussed, it is time for the one-to-one comparison. The two earlier chapters on survey excavation have pointed out that a comparison between surface and sub-surface finds should be made using the site-size and site-assemblage. I will therefore use these two characteristics to address the two Centocelle-contexts.

When considering site-size we have to remember that both survey and excavation define size in a different way. In excavations, the size calculation is based on the ground plan. Surveyors however, estimate the site-size from the material dispersion they encounter in the field. Because of this, surveyed site are almost always larger than their excavated counterparts. When comparing the Centocelle sites however, the difference between the site-size are enormous. The estimated survey sizes range from 7,500 - 40,000 m² for site II and 1,250 - 10,000 m² for site III (see Table 11), whilst the excavated sizes range from 400 – 1,000 m² for site II and
900 – 1,400 m² for site III. Based on this, we thus have to conclude that size-estimates based on the surveyed material are not directly comparable to the excavated examples (at least not based on the dataset provided by the Centocelle-publication).

A similar problem of data-incompatibility was encountered during the comparison of the material-assemblages. Although the materials mentioned in the excavated contexts represent a combination of functional and ceramic-ware categories (e.g. kitchen-ware and vernice nera), the surveyed assemblages are solely noted in ceramic-ware groups. Due to this difference in terminology, a comparison of the two data-sets is not an easy undertaking. An attempt on such a comparison was however made, and is discussed per site in the texts below.

When looking at the material uncovered during the excavation of site II, the following assemblage can be defined: impasto, vernice nera, kitchen-ware, cooking-ware and amphorae. Within the surveyed results however, only three of these are present in high amounts: vernice nera, cooking-ware and amphorae (all three not limited to the centre of the site). Both the impasto and kitchen-ware class are missing, although some of the fine-ware uncovered might fall under the latter category. Both the survey and excavation results do however show the lack of dolia, at least in the central survey unit of the site. Possibly this material class was only used in the later (villa-phases) of the complex. Based on the combined evidence, we must conclude that the material collected during the field survey only partially represents the evidence still buried below the surface.

In the case of site III, the comparison between the data-sets is a bit more positive. Here, the excavated material assemblage is represented by a combination of: vernice nera, thin-walled ware, kitchen-ware, cooking-ware, and amphorae (in addition to a very small amount of dolia; only 2%). Most of these object-classes could also be found in the surface-assemblage, even coinciding with the defined centre of the site. These classes include: vernice nera, cooking-ware, amphorae and dolia. The dolia are even present in such high amounts (relative to the excavated find-context), that the gross of the material should probably be interpreted as part of a later phase of the building-complex. The only object-group that seems to be missing in the surface finds are the fine-wares. Altogether, the find-assemblages between the two data-sets at least show similar object-types. The relative amounts in which they are present do, however, differ: I therefore consider the comparison between both data-sets as a partial match.

In retrospect we must thus conclude that the correlation between the excavated and surveyed material within the Centocelle-project was not as straightforward as hoped. This is mainly related to the fact that, even in this archaeological project, the two data-sets were still approached differently. Especially the lack of a consistent terminology was a problem (with the excavation using functional object-groups, and the survey using ceramic ware labels to identify the finds). In addition, the eventual use of the collected survey-data was quite limited in the Centocelle-publication. The outcomes of this part of the project were mainly used to identify possible, high probability sites for an excavation. A true interpretative step within the project was never undertaken. The comparison between the two data-sets should thus primarily be seen as an exercise in methodology, rather than a true comparative study.
Table 11: The estimated ‘site-sizes’ based on the on-site dispersion of ceramics and other objects (for ‘Site II’ and ‘Site III’). Data collected from the density maps (and chi-square analysis) included in attachments Pt. D-II: ‘GIS: Spatial Analysis Maps’ (pp.160-181).

4.4.2. Addressing the research questions – Survey vs. Excavation

To conclude the chapter, the research questions will be addressed one last time. These either deal directly with the survey or excavation part of the Centocelle-Project, or are of a more methodological nature. The survey material will be addressed first, followed by that of the excavation. The more methodological issues will be addressed in §4.4.3 – ‘General conclusion’.

In order to assess the potential of the survey-data collected during the Centocelle-project, the material was scrutinized thoroughly. Afterwards, density-maps were plotted to visualise the spread of the archaeological material. From this data, both the scatter-sizes and material-assemblages were defined. Unfortunately, the sites dimensions (as based on the density-maps) were very broad, ranging far above the 1,000 m² defined in the survey chapter of this thesis. This difference is however probably caused by my own way of interpreting the data. As the Centocelle-publication did not specify particular scatter-dimensions, the raw survey-data was used (only providing relative densities per unit). I therefore calculated site-size on the amount of survey units that were deemed ‘statistically important’ by the Chi²-analysis (50 x 50 m = 2,500 m² per unit). A material class spanning two units would thus lead to a site-size of 5,000 m²: much too high for a simple farmstead site. By addressing this issue, the Centocelle-project shows the importance of documenting encountered site-dimensions in the field (in addition to the find-data per survey unit). Otherwise, you lose evidence that can never be recovered.

The material assemblage encountered in both methodologies can be considered as a combination of: (roof) tiles, cooking-ware and storage-ware (both dolia and amphorae). In essence, this is comparable to the site-assemblage defined in the survey-chapter. It does however miss certain site-specific characteristics, like loom weights (indication production) and mosaics (indication luxury). From the Centocelle-publication it
remains unclear whether these kinds of material were simply not found during the survey, or not recorded and published.

In addition to the survey results, the excavated remains on the Centocelle-plateau also provided insight into building dimension and material assemblage. The complexes were rectangular in shape, ranging from 400 – 1,000 m² for the farmstead-phases, and 1,000 – 2,000 m² for the later villa-phases. The material-assemblage encountered can again be seen as a combination of: kitchen-, cooking- and storage-wares.

When comparing these characteristics to the outcomes of the excavation-chapter, it becomes apparent that there are both similarities and differences. The material assemblage is in essence comparable, but lacks the prominent luxury indicators (e.g. mosaics). Site-size is also quite similar, but resembles primarily the villa rustica (and true Villa) class. The Centocelle-examples are simply too large to be compared to the farmstead-types from the excavation chapter (which have an approximate size of less than 400 m²).

On a concluding note, we can thus say that the rural sites uncovered at the Centocelle-plateau were defined in a similar manner as the ones discussed in the other chapters, but lacked certain detail. To truly assess the value of a comparative approach, the following paragraph will discuss the project as a whole.

4.4.3. General conclusion
The Centocelle-project was primarily included in the thesis to present an archaeological project combining various methods (i.e. survey, excavation, geophysics), and integrating them into one data-set. The discussion of such a project would reveal the potential of an overarching approach, in which different methodologies would benefit from each other’s outcomes (Johnson & Millett 2013, 3).

However, when looking back on the results presented in this chapter, we have to conclude that the comparative approach did not yet bring all that was expected. The pre-excavation field survey turned out to be nothing more than a simple inventory of archaeological interesting sites for the placement of test-trenches. This implementation reminds us of the earliest type of (field) surveys, which were primarily intended as a ‘site-location’ tool (p.1). Researchers therefore only classified the encountered ceramics in very generalised functional groups, which spanned over vast chronological periods. This process led to a lumping of finds into (quite honestly) unmanageable object-groups. A more detailed statistical analysis of the habitation phases on Centocelle-plateau, which can normally be conducted with the help of surface-data, was therefore impossible. In addition, the above mentioned Chi-square analysis could only provide preliminary results on the link between features above and below ground.

The same can be said for the large scale excavations and test-trenches on the plateau. Although the data they provided gave important insight into the general dispersion of sites located on the plateau, none of them were eventually (directly) compared to the outcomes of either the survey or geophysical results. It seems that both methodological steps (i.e. survey and excavation) were conducted as separate parts of the project, and incorporated only on a basic ‘site-location’ level. The interpretations provided by both methods were certainly not compared. The only truly comparative part of the project was the case-study of unit #25 (discussed on p.53). This example however showed how difficult (and labour intensive) such a comparative method is, making it virtually impossible to conduct on a larger scale.
Concluding, we can thus say that in the end the Centocelle-project was not the perfect example of a comparative study as I initially hoped. Although it combined the results of both survey and excavation on some levels, the use of the collected data in this aspect was still limited. This is mainly related to the fact that the methodologies were not equipped with the same level of detail, and lacked a standardised (object) terminology. The Centocelle-project did however provide a good overview of the problems and difficulties are connected to such an overarching project, an essential step for further research. Based on these insights, scholars can define better research protocols for the comparison between surface and sub-surface finds. The Centocelle-project has therefore made a great step forward for the purpose of the archaeological field.

4.4.4. The final step

Now that all the main points of interest have been discussed (i.e. survey results, excavation results and a comparative approach), it is time to move to the general discussion and conclusion of this thesis. In the coming chapter, the two archaeological fields will be compared directly. In addition, all methodological difficulties (especially the ones encountered in this chapters’ comparative approach) will be addressed. Based on the combined evidence, an assessment will be made whether surface and sub-surface finds are truly comparable.
Chapter 5: Conclusion

5.1. Introduction

5.1.1. General introduction of the conclusion

In essence, this research masters’ thesis tried to move beyond the investigation of isolated case-studies and work towards a comparative approach. By combining information from both archaeological surveys and excavations it bridges the gap between the two archaeological disciplines. This final chapter will bring together all different lines of enquiry discussed in this thesis. In addition, it will present the generalised conclusions and reflect on the way the research was conducted. Before presenting the results of the comparison between surface and sub-surface finds, a recap will be given from the three main chapters (chapter 2 – 4).

5.1.2. Survey outcomes & research questions

In answering “how Republican farmsteads and villae are defined in survey classification systems” (research question i), the analysis focused on the two most commonly used site-characteristics: scatter-size and material assemblage. Considering these two characteristics, the dataset showed that the gross of the projects made a general division of rural sites in accordance to the three archetypical classes: villae (i.e. large in size and high-status), medium farmsteads (i.e. medium size and middle-status), and small farmsteads (i.e. small size and low-status; as also attested in: Launaro 2012).

Most theoretical publications however underline the difficulties the use of the mentioned two characteristics in comparative research, especially with regards to the scatter-sizes. Scholars, like Banning (2002), firmly believe that size-estimates of different field survey projects cannot directly be compared. This thought is based on the often impressionistic nature of the definitions, which are more similar to “guestimates” than true scientific values (Banning 2002, 201).

My analysis of the included projects however showed a more positive view on the use of the term scatter-size. Most present day surveys employ roughly comparable size-categories, which are defined in detail. ‘Natural breaks’ are clearly visible in the site-ranges which distinguishes farmsteads from villas, with only a slight overlap in some cases. Size-ranges can thus be used as a quite distinctive feature between the two types.

A detailed classification of rural sites based on the material assemblages is somewhat more problematic. The natural (hierarchical) order of site-types is directly attested by the materials uncovered on site during a survey-project. For instance, farmsteads are indicated by a combination of simple building materials and storage wares, whilst villae-sites mainly consist of more luxurious building materials (mosaic, plaster etcetera). However, the identification of site-types in survey projects is still mainly based on over-generalised functional object-groups. The projects mention the presence of for example storage wares, but fail
to indicate the precise ceramic shapes or the relative amounts of these objects. It is therefore unclear how their site-classes are defined on a specific level of detail.

5.1.3. Excavation outcomes & research questions
By comparing the individual site-characteristics provided by the excavated examples I attempted to reconstruct the sub-terraneous footprint of a Republican farmstead. After reviewing the results, it could be concluded that the site-type was not as easily defined as initially presumed. The excavated examples included within the dataset primarily stress the importance of architectural information and general layout of the ground plan as primary sources for a functional site-interpretation.

A combination of both site-size and building shape does seem to be indicative of site-classes. A grouping of site size-ranges was clear, starting at the low end with small and medium sized farmsteads, and ending with full-fledged villa-complexes. In some of these types, the incorporated courtyard also seems indicative of a particular function.

A site-definition based on the material assemblages seemed much more difficult. This is mainly caused by the fact that the ceramic assemblage for farmsteads and villae rusticae are almost identical. Both site-types mainly include storage and production wares. Some definitive features are present, but again representing mainly generalised differences in status: luxurious architectural elements (i.e. marble or mosaics) representing villa-sites, and farmsteads mainly consisting of (roof) tile assemblages.

In relation to the main question (iv) “How are Republican ‘farmsteads’ and ‘villae’ defined in archaeological excavations (i.e. most commonly used site-characteristics)?”, we can formulate the following answer: a differentiation between the site-classes based solely on the uncovered site-assemblages is quite difficult. In most of the included cases the sites interpretation is based on the presence of one or two particular objects (or object-classes), in relation to the general ground plan of the building. Part of this is directly connected to the selective nature of the excavation process: excavating only certain contexts that are regarded as important. It thus seems that site-size (possibly in combination with the ground plan) is the only characteristic that might have the potential to bridge the gap between excavation and survey-results.

5.1.4. Outcomes & research questions of the Centocelle case-study
Chapter four of this thesis, which discussed the comparative Centocelle-project, was main concerned with addressing the following research question: (vii) “Is the evidence from both methodologies (survey / excavation) comparable in the case of Centocelle?”. Overall, the analysis showed that the survey and excavation results were not as directly comparable as initially thought. Even though the results of both methods follow the types of site-characteristics as defined in the previous chapters, the difference in object-terminology and in the degree of detail is too vast for a proper comparison.

The true value of the Centocelle case-study therefore lies in the theoretical and methodological issues this comparative project brought to light. These include the issues of standardisation (mainly of terminology) and the need for a true comparative project. The issues will be addressed further in this concluding chapter.
5.2. The differences between survey and excavation

5.2.1. Clear methodological differences

From the cases described in this thesis it has become clear that an understanding of the methodology is an essential part of comparative research. It is always useful to take a step back and consider how methodologies and project-specific aims influence the interpretation of the collected material (i.e. research questions ii and v). Different methodological choices inherently influence not only the way the archaeological data is perceived, but also how it is interpreted.

This discussion is however heavily biased by a set of preconceptions still imbedded within the archaeological discourse. Even though archaeological survey has truly become an independent research method, many scholars still perceive it as the ‘site-locating’ tool introduced in the first chapter of this thesis. They therefore believe that the true solutions to most survey archaeological problems (and site-classification issues) lie firmly below the ground.

Throughout this research masters’ thesis we have however seen that this is not the case. Whilst most excavators often encounter great difficulty in defining a site’s function, archaeological field surveyors find it relatively easy to classify scatters into a handful of categories (based on a combination of size and assemblage). Part of this is directly related to the way in which excavations and survey differ in their definition of site-characteristics (discussed in more detail later on; §5.2.2), as well as the degree of generalisation they implement in their site-types. Both have a severe impact on the way in which methodologies allocate site-classes to the sites or archaeological remains they encounter.

Another difference between the two methodologies is not related to the archaeological analysis itself, but the eventual publication of the acquired data. Different archaeological methodologies are not just different in outcome, but also in the way they are published. This is quite evident from the comparison of survey and excavation reports, in the sense that find-data is presented in two different ways. Publications on survey-projects present detailed lists of find-material (both quantitative and qualitative) as they are intended to provide an inventory of the archaeological material on a regional scale (to eventually study its developments through time). Most excavation reports however lack this quantitative-side: individual objects that directly represent the functional use of the building are considered to be more important. The difference in publication-methodology thus makes a direct comparison on the basis of relative find-amounts very difficult.

5.2.2. Differences in the handling of materials

Even though the methodologies, field practices and publications might differ between survey and excavation, both archaeological discourses have a similar goal: trying to determine the site-characteristics (e.g. nature, extent, function, and level of preservation) of either a known or still suspected archaeological site. Throughout the analysis of both methodologies within this thesis, we have seen that scholars follow two distinct lines of enquiry to define a site-type. Archaeological field surveyors look at the spread and function of surface finds in order to locate identifiable material scatters (i.e. sites), whilst excavators follow buried remains to determine the ground plan and site-extent. The following paragraph will address these site-characteristics one at the time, discussing both the differences and similarities of use between the two methods.
First to be discussed is the site’s size, which is based on an interpretation of the shape and characteristics of the excavated site (ground plan) or catchment survey. We have seen that both methodologies define this characteristic in their own way: a meticulous calculation of size based on the excavated ground plan versus the “guestimates” of ceramic scatters in the field. Despite these differences, the eventual size-values seem roughly comparable. The dualistic approach of Unit #25 within the Centocelle-project (chapter 4; Gioia & Volpe 2004, 196) even showed a possible one-to-one comparison (though only through use of a very intensive survey-grid).

There are however some conditions that influence the reliability of size-estimates (for both methods). One of these limiting factors is the presence of multi-period sites. As these rural sites compact and expand over time, their material footprint becomes harder to read. This is especially the case with survey archaeology, in which these type of sites lead to a continuous blanket of archaeological material (Terrenato & Haggis 2011, 20). Another problem is the (assumed) correlation between site-size and sample-size. It is often taken for granted that the surface material is a fair representation of still buried remains, even though research has shown the contrary (Schörner 2012, 35-36).

Second to be discussed is the material assemblage, which is based on the identification and interpretation of the encountered ceramics. For this analysis survey archaeology looks at both the diversity of pottery classes and the quantity of sherds. In general terms, the survey approach can be sub-divided into three themes: (i) a comparison of sherd-counts (in functional-categories); (ii) a comparison of the percentages per pottery-class; and (iii) a comparison of the diversity within each assemblage (Schörner 2012, 34). This is in sharp contrast with the excavation practice. In these cases the general ground plan (i.e. architectural elements) and the presence of specific (ceramic) finds are deemed more important. One object can determine the functional interpretation of a room, or even a whole building complex. A statistical approach to the presence and dispersion of ceramics, like in the survey cases, is not a general practice.

In order to overcome the differences in material-definitions, it is wise for scholars to incorporate both quantitative (scatter-size and material density), as well as qualitative measures (the relative presence of certain materials) in their site-definitions. This combination was already argued by Pullen in 2003. The site-specific measures for the rural Republican sites will be discussed in the coming paragraph.

5.2.3. A true division visible between farm and villa

Now that we have discussed both the methodological and material differences, it is time to address the issue of a presumed differentiation between farmstead and villa sites: “Are the site-definitions from surveyed and excavated examples comparable?” (research questions vii, viii and ix). Both the survey and excavation data-sets showed that rural sites can vary considerably in size, architecture, ground plan and material finds. The variation in characteristics can be observed directly in the three tables included below (see tables 12 - 14). The tables are setup to represent the generalised characteristics of a single site-class in both survey and excavation methodology. The colours represent how comparable the characteristics are between the two definitions: ‘green’ indicating a similarity, ‘red’ a difference, and ‘grey’ marking an aspect that is only mentioned in one of the data-sets (making it impossible to compare).

64
When looking at the first table (table 12; p.96), which compares the farmsteads-class in both methodologies, we can see that the only comparable elements can be found in the encountered building material and pottery assemblage. These elements are however very generalised, in most cases listing solely the material functional classes (i.e. storage / transport wares), without mentioning the exact material class (i.e. amphorae or dolia). Site-size is not comparable, as the ranges between the surveyed and excavated examples are too great. Based on this data I conclude that Republican farmstead sites are not represented by the same archaeological indicators in both methodologies. A farmstead found during an excavation should therefore never directly be used in a comparison with a surveyed example.

The second table (#13; p.97) shows a similar outcome. This one compares the surveyed farmstead-class with an excavated villa rustica example. I chose to compare these two classes because the analysis in Chapter 3 showed a clear overlap in site-characteristics between excavated examples of the two. Again, the two material classes (building material and pottery classes) seem to be the only comparable aspects (and solely in generalised terms). The defined site-sizes are in this case somewhat more similar, but still only for the smaller farmstead examples.

The third and final table (#14; p.97), which compares the villa-class in both methodologies, gives the least hopeful overview. From the included site-characteristics, it seems that the only comparable aspect is the presence of luxurious architectural elements (in combination with an amount of storage ware). This makes the villa-type the most generalised type discussed in this thesis (especially in the excavated contexts).

From this set of evidence we thus have to conclude that the site-classes implemented in both survey and excavation practices are extremely generalised in nature. Separately, both methodologies provided site-defininitions that were roughly comparable between the included projects. They all showed a shared opinion of what a farmstead or villa should look like in their data-set, complete with site-specific material assemblages.

When comparing these definitions between the two methods however, these similarities disappear. Assemblages are defined differently, leading to different characteristics.

The only thing both methodologies do agree on is the general (historical) description of the two site-types. In general terms they define a farmstead as: a rural structure of medium-size (constructed of mainly simple building materials), with evidence of domestic occupation and agricultural activity. And a villa as: a site-type incorporating a great diversity of building materials, storage capability, and evidence for luxurious accommodation. Easily identifiable through more elaborate structural features and a higher quality of finds.

This begs to question how useful the two site-types really are. And even if a true definition of ‘objectified’ site-classes even exists? A similar debate was started by Rathbone (1993) who argued that archaeologists had oversimplified reality by creating two “bogus” pseudo-historical categories: ‘farm’ and ‘villa’. In his opinion this site-class distinction helped solely in simplifying ideas on past developments (which in reality were probably more fluid and complex in nature).

Although he might have a point in stating that the ‘over-generalised nature’ of the classes (as also seen throughout my thesis) is a limiting factor in the use of site-classification systems, their use also has an upside.

64 In most of the analysed cases, the ground plan of the building provides the best data for site-interpretation.
Labels (i.e. site-classes) are needed to interpret data and share hypotheses. Due to this, the two categories discussed in detail above, have become embedded in the practice in the field. They determine not only what is recorded, but also how (Witcher 2006). It is therefore important to realize that it is impossible (and unwanted) to completely strip away these interpretative site-categories from the existing survey or excavation practices. In my opinion the current field of research should thus maintain the “dichotomy” between farm and villa, as it is the only ‘reasonably robust work method’ (Witcher 2006).

<table>
<thead>
<tr>
<th>Survey</th>
<th>Farmstead</th>
<th>Excavation</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 &lt; 999 m² (M)</td>
<td>Site-size</td>
<td>100 - 200 m² (S)</td>
</tr>
<tr>
<td>1, 200 &gt; &lt; 2, 500 m² (L)</td>
<td>[n/a]</td>
<td>200 - 350 m² (M)</td>
</tr>
<tr>
<td>[n/a]</td>
<td>Building Shape</td>
<td>[Rectangular]</td>
</tr>
<tr>
<td>[n/a]</td>
<td>Courtyard presence</td>
<td>[n/a]</td>
</tr>
<tr>
<td>[n/a]</td>
<td>Type &quot;New&quot;</td>
<td>‘[A]’ &amp; ‘[B]’</td>
</tr>
<tr>
<td>Roofing (‘tiles’)</td>
<td></td>
<td>Roofing (‘-)</td>
</tr>
<tr>
<td>Walling (‘brick’, ‘Rough / cut stone’)</td>
<td>Building material</td>
<td>Utility / Manufacture (‘-)</td>
</tr>
<tr>
<td>Table-ware / Domestic (‘coarse-w.’, ‘common-w.’)</td>
<td>Pottery shapes / wares</td>
<td>Table-ware / Domestic (‘coarse-ware’, ‘impasto’)</td>
</tr>
<tr>
<td>Storage (‘amphora’, ‘dolia’)</td>
<td></td>
<td>Storage / Transport (‘-)</td>
</tr>
<tr>
<td>Luxurious pottery (‘fine-w.’)</td>
<td></td>
<td>Luxurious pottery (‘Terra Sigillata’, ‘Vernice Nera’)</td>
</tr>
<tr>
<td>Cooking-stand (‘Ceramic’)</td>
<td>Material Evidence</td>
<td>Tools (‘-)</td>
</tr>
<tr>
<td>Domestic crafts (‘grinding stone’, ‘loom weight’, ‘slag’)</td>
<td></td>
<td>Luxury (‘glass’, ‘jewelry’)</td>
</tr>
</tbody>
</table>

**Table 12:** A ‘one-to-one’ comparison between the defined site-characteristics for the ‘farmstead’-type; for survey & excavation results (based on the outcomes of Chapter 2 & 3).

---

65 The use of such generalised site-classes makes initial, in-field identification possible, after which a more detailed analysis of specific similarities and differences can be distinguished.

66 To underline this aspect, Witcher stated that: “Categories are meaningful only if they are related to specific questions. The distinction between town and villa, or between villa and farm, does not exist a priori, but is relative to a particular perspective.” (Witcher 2012, 16).
# Farmstead (survey) vs. Villa Rustica (excavation)

<table>
<thead>
<tr>
<th>Survey</th>
<th>[Site-characteristics]:</th>
<th>Excavation</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 &gt; &lt; 999 m² (M)</td>
<td>Site-size</td>
<td>650 - 700 m² (M)</td>
</tr>
<tr>
<td>1, 200 &gt; &lt; 2, 500 m² (L)</td>
<td>[Rectangular]</td>
<td>500 - 800 m² (L)</td>
</tr>
<tr>
<td>[n/a]</td>
<td>Building Shape</td>
<td>[Square-Rectangular]</td>
</tr>
<tr>
<td>[n/a]</td>
<td>Courtyard presence</td>
<td>0 - 300 m²</td>
</tr>
<tr>
<td>[n/a]</td>
<td>Type &quot;New.&quot;</td>
<td>'C' &amp; 'D'</td>
</tr>
<tr>
<td>Roofing ('tiles')</td>
<td>Building material</td>
<td>Roofing (-)</td>
</tr>
<tr>
<td>Walling ('brick', 'Rough / cut stone')</td>
<td>Utility / Manufacture (-)</td>
<td></td>
</tr>
<tr>
<td>Table-ware / Domestic ('coarse-w.', 'common-w.')</td>
<td>Pottery shapes / wares</td>
<td>Table-ware / Domestic ('coarse-ware')</td>
</tr>
<tr>
<td>Storage ('amphora', 'dolia')</td>
<td></td>
<td>Storage / Transport (-)</td>
</tr>
<tr>
<td>Luxurious pottery ('fine-w.')</td>
<td></td>
<td>Luxurious pottery ('Terra Sigillata', 'Vernice Nera')</td>
</tr>
<tr>
<td>Cooking-stand ('ceramic')</td>
<td>Material Evidence</td>
<td>Tools (-)</td>
</tr>
<tr>
<td>Domestic crafts ('grinding stone', 'loom weight', 'slag')</td>
<td></td>
<td>Luxury ('glass', 'jewelry')</td>
</tr>
</tbody>
</table>

**Table 13:** A 'one-to-one' comparison between the defined site-characteristics for the 'farmstead'-type (survey) and 'villa rustica'-type (excavation). The information is based on the outcomes of Chapter 2 & 3.

# Villa

<table>
<thead>
<tr>
<th>Survey</th>
<th>[Site-characteristics]:</th>
<th>Excavation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000 &gt; &lt; 5,000 m² (S)</td>
<td>Site-size</td>
<td>&gt; 1,050 m²</td>
</tr>
<tr>
<td>5,000 &gt; &lt; 10,000 m² (M)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 10,000 m² (L)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[n/a]</td>
<td>Building Shape</td>
<td>[Different Sectors]</td>
</tr>
<tr>
<td>[n/a]</td>
<td>Courtyard presence</td>
<td>600 - 850 m²</td>
</tr>
<tr>
<td>[n/a]</td>
<td>Type &quot;New.&quot;</td>
<td>1,600 – 1,750 m²</td>
</tr>
<tr>
<td>Roofing ('tiles')</td>
<td>Building material</td>
<td>Luxurious architecture ('Elaborate Architecture')</td>
</tr>
<tr>
<td>Walling ('bricks', 'rough / cut stones')</td>
<td>Utility / Manufacture (-)</td>
<td></td>
</tr>
<tr>
<td>Luxurious architecture ('columns', 'marble', 'mosaic', 'tesserae', 'painted plaster', 'pavements', 'architectural fragm.')</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preserved structures ('above' or 'below ground')</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tableware / Domestic ('coarse-w.')</td>
<td>Pottery shapes / wares</td>
<td>Storage (-)</td>
</tr>
<tr>
<td>Storage ('amphora', 'dolia')</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luxurious pottery ('fine-w.')</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luxurious goods ('import')</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass ('objects', 'building material')</td>
<td>Material Evidence</td>
<td>[n/a]</td>
</tr>
<tr>
<td>Complex features ('Bathhouses', 'Cisterns', 'Hypocausts')</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 14:** A 'one-to-one' comparison between the defined site-characteristics for the 'villa'-type; for survey & excavation results (based on the outcomes of Chapter 2 & 3).
5.3. Comparability

5.3.1. The need for a comparative project

Throughout the thesis we have seen time and time again at which points the methodologies (and outcomes) of excavations and survey projects differ. No archaeological researcher can thus deny that landscape surfaces and sub-surfaces cannot be documented at the same level of intensity. One way, and probably the best way, of dealing with the differences between them, is by (at least) partially integrating them in the project itself. I therefore want to introduce the incorporation of both survey and excavation practices in one project. Such a discussion of the subject will give an overview of both the possibilities and connotations of such an integrated methodology (research question x).

A project with such a setup does not only include data from programs suiting one’s own interpretive methodology, but can rather incorporate data from all different archaeological sources (e.g. excavation, reconnaissance, systematic field analysis and intensive survey methods). In this, it works towards integration and the development of a more holistic approach within comparative research (Cunningham & Driessen 2004, 101). For a comparative approach however, a critical method of source selection is key (a fact already seen throughout this thesis). Before one incorporates archaeological data, one must determine what kind of data to consider, both in terms of its production / collection, as the way in which it is made available for other researchers.  

Unfortunately, not yet all archaeological projects incorporated such sophisticated field survey with targeted excavation techniques. This is quite disappointing, as the analysis of (local) excavated sites would profit from the unique strength of an incorporated survey-methodology (and vice-versa of course). Surveys are for instance a perfect way to scout and initially interpret new promising sites (at least in rural areas), readying it for excavation. Additionally, regional field survey can help to reconstruct the long-term occupation history of the region in which the excavated site is located. By operating on a “regional scale, it would provide a broader context to the site, which an excavation alone cannot (Witcher 2006, 49; Cunningham & Driessen 2004, 110). On the other hand, field surveys are also dependent on in-depth excavation projects. The chronology of the encountered ceramics in surveys is, for instance, always based on stratigraphical excavated contexts. Additionally, the sub-surface investigation of previously surveyed site (through either excavation or geophysical techniques), could confound the (somewhat simple) classification schemes used by most survey archaeologists.

---

67 Do we have to work with: ‘final publications’, ‘preliminary (seasonal) reports’, or ‘personal communication’? (Cunningham & Driessen 2004, 101). The importance of the way the material is published, and made available for other researchers, will be discussed in the coming paragraph.

68 Exceptions are (i) the ‘Laconia Rural Sites’-project, which applies a battery of additional techniques to investigate sites previously identified by surface survey (Witcher 2012, 24-25). (ii) The investigation of the Sinop, a regional study of the hinterland of one of the most important ports on the south shore of the Black Sea, between the mid-first millennium B.C. to first millennium A.D. (Doonan 2004, 2006). And (iii) the already presented Roman Peasant Project (Ghisleni et al. 2011; Bowes 2011).

69 As we already (at least partially) saw in the discussed Centocelle-project (Chapter 4).

70 A methodological chain-of-events which has already been put into practice within Survey-project #11 (Chapter 2; Ghisleni et al. 2011); i.e. ‘The Roman Peasant Project’.
The interaction between the two methods should thus most probably be seen as an ongoing “two-way dialogue” (Bogucki & Crabtree 2004, 32-33), which will become more important in the coming years. Since the signing of the Valetta Treaty (1992) the conservation and non-destructive intervention regarding archaeological sites became more and more important throughout Europe. It is therefore to be expected that non-invasive techniques will probably be favoured in the future. The combination of surface surveys, in combination with sub-surface prospection deploying both geophysics and geochemistry, will with the years increasingly play a greater role in national monument management programs (Bintliff et al. 2000, 1). Detailed comparative approaches, like implemented in the discussed Centocelle-project, will thus probably become a norm in archaeological investigations.

5.3.2. Standardisation as a solution

To facilitate the need for such comparative projects, standardisation (at least in terminology) is a must. It remains questionable however if this is also truly feasible: “Can a generalized site-classification and terminology even be considered to be a valid idea?” (research questions iii and vi). As we have seen throughout this thesis each research method perceives and records the information differently (varying in their objectives, coverage and intensity; Kowalewski 2008, 227-228). Moreover, in cases where pioneering research has been undertaken (like the Centocelle-project) researchers tend to develop and implement new methods. The danger with these methodologies is that they are shaped particularly to support the intended research questions, but give little to no attention towards a standardization of data or results (Barker & Mattingly 2000, III).

In this light, project-methodology is like most other ‘methods’ and ‘theories’ in the archaeological discourse. At the application for a new project, they are often trotted out like a cute pair of twins that get "oohed" and "ahhed" over, but wheeled back into the house the moment the actual fieldwork starts (Black & Jolly 2003, 21). Once the project has started, issues like intercomparison and standardisation (of types and terminology) are completely forgotten.

The most obvious solution to assure that archaeological-data from different projects is comparable, is to standardise their site-categories. Although this might seem quite simple on paper, putting it into practice reveals a number of problems and question-marks. In this thesis I tried to determine ‘if’ and ‘what’ the ideal way was to classify rural Republican sites, but eventually had to conclude that one ‘generalised classification system’ (spanning both surveyed and excavated results) was just not feasible. There simply was no “ideal typology”. Although standardisation in survey projects might be (partially) possible, as the methodology already uses “semi-generalised statistical data” (i.e. find numbers from density plots), excavations of the same site-type do not provide such standardised data. Within excavated examples there seem to be much more variations, leading to the definition of a whole range of (sub)types per building-type (based primarily on ground plan deviations).

It therefore seems much more fruitful to simply recognize the differences between the two methodologies, and work with the strengths and weaknesses of the different types of data (Witcher 2012, 27).

---

71 In essence, this entails the definition of ‘global criteria’, ‘terminology’, ‘attributes’ and ‘variables’.
72 Consensus has been reached on the fact that implemented site-definition-criteria should theoretically be formalized, but the adaptation of such an approach proved difficult (Gallant 1986; Terrenato 2004).
Standardisation practices should however not limit the use (and outcomes) of archaeological investigations, as projects without the ability to deviate from the methodology to address specific characteristics would probably lead to mediocre results (Banning 2002, 36). Standardisation should solely be implemented as a guideline, not a “straitjacket” (Bintliff & Sbonias 2000, 243). This is especially the case for survey methodology, and the interlinked site-classification systems. It is very important to remember that it is not the job of an individual archaeological (survey) researcher to find the perfect strategy, but rather to settle on the method that will best address the project specific research questions (Black & Jolly 2003, 85).

Eventually, it seems that one of the greatest dangers with ‘classification’ and ‘standardisation’ is the aspect of ‘overgeneralisation’ (Adams & Adams 1991, 303). Scholars should never underestimate the relevance of ‘intuitive site types’ in site-classification practices. When looking at the collected data, some classifications will simply “come to mind”. In most cases it seems to be these classes that become the foundation blocks for the overall typology (Adams & Adams 1991, 53-54). In my opinion, the rural site-classes discussed in this thesis seem to be such ‘intuitive site types’, as most of the cases included in both the ‘survey’ and ‘excavation’-data-set implemented them by ease, without clear definition. Part of this must of course also be related to the historical connotations of the site-classes.

For the above mentioned reasons both data-sets should be interpreted in their own way. As Millett stated “Good survey, like good excavation, requires a flexibility of mind and a willingness to solve new problems as they arise.” (Millett 2000b, 92). It is however essential to define your strategy as explicitly as possible within your publications (i.e. what, how and why you are doing it, in order to make it replicable). If you provided other archaeologists with both your methodological framework as well as your results, you will have made a contribution to the archaeological record, regardless of what you find in the field (Black & Jolly 2003, 48). One of the proposed ways to facilitate a standardised work method is a (carefully) designed recording system of artefact-groups, with an incorporated standardised nomenclature. This would formalise the way in which data is collected and presented, ensuring especially the inter-project comparability.

---

73 This thesis therefore does not advocate a "one-size-fits-all" approach (Athanassopoulos & Wandsnider 2004, 16-17), but realizes that different projects will need to select approaches appropriate to their own situation.

74 A practical example of the dangers of ‘overgeneralisation’ can be found in Witcher’s (2012, 24) description of the broad distinction between ‘farmstead’ and ‘villa’-sites, as implemented within the South Etruria survey. After re-evaluation of the sites, nearly all of the ‘villa’ sites encountered there would instead be categorized as ‘farmsteads’ (leading to a totally different impression of the social organisation of the area).

75 These “automatic” classes are called ‘intuitive gestalts’, i.e. clusters of objects that are so distinctive in nature that they are immediately seen as significant (even without consciously determining their distinctive features; Adams & Adams 1991, 348).

76 This is your responsibility to other researchers (and the general public) in making able for them to use your results in further research.

77 In essence, this will include the standardisation of: ‘classification-systems of object-groups’, ‘site-types’ and ‘functional-assemblages’, in order to ensure similar interpretation of the data-set.
5.4. Final thoughts

5.4.1. End remarks

Now that all sub-questions are discussed, and conclusions are drawn to fit them, it is time to answer the main research question: “Are survey-data and excavation-data a priori compatible in nature: e.g. is a ‘farm’ a ‘farm’ in both contexts?”. To my own dismay I have to answer this question with a big: “NO!”... or at least, not yet. Throughout the thesis I had to conclude time and time again that both the results and methodologies of the two fields of research are completely different, showing only slight overlap in some site-defining characteristics (e.g. site-size and material assemblage).

But, if this thesis (A) did not provide a definitive site-classification scheme for Republican farmsteads, and (B) did not show that a direct correlation between surface and sub-surface finds is an easy undertaking, then what did the research actually bring? I think that the methodological issues addressed during the analysis were more valuable than the eventual outcome. Three of these issues stood out: classification, standardisation, and convergence of terminology.

One of the key elements to keep in mind whilst doing comparative research is that ‘classification is selection’. Whether you are trying to classify surveyed results or excavated material, it is the selection of elements the researcher deems important that eventually shapes the research (and thus the results). Because of this, the classification-process itself is also not truly ‘pre-conception’-free. Rather than simply and objectively assigning objects to pre-existing categories, classification is heavily dependent on the questions it is used to answer. In light of this, classification involves a deliberate narrowing of the theoretical scope, in order to prioritize case-aspects related to the specific research questions (Witcher 2012, 12).

The solution should therefore not be sought in the ‘ideal classification scheme’ (as was initially the aim of this thesis), but in a more standardised way in which the archaeological data is recovered, recorded and published. Protocols can be made to limit the biasing effects of both methodological choices and the preconceptions that are connected to these choices. By standardising this step in the chain of research, the different data-sets are semi-compatible from the start. The inclusion of ‘meta-data’ on the field procedures (and any methodological deviations) leads to a better understanding of the research biases and their effects on the results.

An additional convergence in terminology (in both survey and excavation publications) might be another step in assuring comparability. It will enable a less ambiguous way for researcher to share information and data (Millett 2000, 93). This does however not inherently imply that the methodologies of the included projects should be completely the same; it just implies that the terminology used is compatible. It is clear however that it is not an easy undertaking to standardise these diverse strategies to be standardised in such a way that world-wide (theoretical) consensus can be researched on its implementation. Hopefully this thesis made a step towards a more compatible archaeological data-set.79

---

78 In a way, the results provided within my thesis underline the solutions already presented by Banning (2002, 38), who stated that archaeologists should primarily design their surveys to satisfy their own personal research questions.

79 A further reflection on this thesis can be found in the attachments Pt. E-I (pp.185-187).
5.4.2. Recommendations

One possibility to tackle the classificatory-issues encountered in this thesis is for all new archaeological projects to truly incorporate both surface surveys and (small scale) sub-surface investigation. Cherry already recommended such a comparative approach in 1994: “targeted excavation and geophysical work should go hand-in-hand” (1994, 103-105). As of yet, his advice has however not yet been taken to heart, which is probably due to the immense costs and workload of such a comparative project. It is therefore wise to look at alternatives.

The most promising and feasible approach seems to be the incorporation of legacy data into new projects. As archaeological field surveys are (not always) repeatable, and researchers need to extract all valuable data from existing data-sets, the importance of this type of data should not be underestimated (Witcher 2012, 24-25). The realisation that “old data” can lead to “new insights” needs to become part of everyday archaeological reality.

With current day technology, such an incorporation of data should be possible. Most (recent) archaeological projects have already incorporated a GIS within their research arsenal. Essentially, this system provides an archaeological project with a uniform framework to integrate, manage and curate data from variety of sources (Hodder & Orton 1976, 244; Gillings; In: Bintliff et al. 2000, 109). Although initially implemented as a retrospective application, the real benefits of the GIS-approach are found in its ability to serve as a test-bed for the development and evaluation of new approaches (Gillings; In: Bintliff et al. 2000, 114-115).

When implemented right, these data-bases can be used to strip away theoretically laden interpretative concepts like farmstead or villa, leaving room for flexible and alternative interpretations to be based primarily on the raw-data. Witcher already saw the potential of such a tool, as it provides a much better understanding of variability in sites (and site-types; Witcher 2006, 61).

Another possibility (also introduced by Witcher, but in 2012; 24) is to include an ‘atlas of rural sites’ within each survey project. Such a dataset includes all sites encountered during a project, complete with their original find-data. By incorporating them into other datasets in a given region, they can be used to produce a single generalised class-system (based directly on field-data), complete with ‘idealised’ site-type examples. Through this last method, the “biased” interpretations of the original investigators are by-passed, and the objectivity of the data-set is secured.

5.4.3. Further research (a possibility)

As a way to test the approaches brought forth in the recommendations-paragraph (above), I would like to propose a new research project on the subject of ‘Intra-regional site comparability’. The project combines the issues raised in this thesis (especially the ones concerning site-classification and legacy-data), and implements a two-fold approach.
The first step in such a project would be to make a one-on-one comparison of different sites and the site-classes of a series of survey projects (incorporating aspects like assemblage, scatter-size, density and functional objects). The site-classes are consequently generalized, enabling the second part of the project. Here, the standardized data-sets will be used to model the rural landscape in all of the areas (for the Hellenistic / Republican). Due to this twofold setup, the proposed project gives insight into both the comparative nature of site-classes and shows the different stage of regional development in different regions.

The outcome of the project would preferably be in an open-access format (as is the case with the DSP and the ICA Metapontino Project). Scholars can then consult (and reflect on) the MS-Access database with standardized site terminology, the GIS with all comparative analyses (i.e. demographic extrapolation, land evaluation and network analysis), and the eventual regional hypotheses on landscape development. I hope that such a project would open the eyes of many archaeologists, through showing both the methodological problems and the added value of the comparison of datasets.

---

80 E.g. the Pontine Region Project (Attema 1993); the Metapontino Project (Carter et al. 2012); the Salento Isthmus surveys (Burgers 1998, Yntema 1993); the Dzarylgach Survey Project (Guldager Bilde et al. 2012), and the survey of the Chersonessos (Carter et al. 2000).

81 In essence, my proposed research will follow in the footsteps of the RPC-project (Regional Pathways to Complexity; 1997-2010).

82 An example of this sharing of data can be found on the web: a site hosted by Data Archiving and Networked Services (DANS EASY), The Hague, The Netherlands.

83 A more detailed outline of the proposed research was written as a PhD-proposal, and can be requested.
Bibliography


ATTEMA, P. & G. SCHRÖNER (eds), 2012. Comparative issues in the archaeology of the Roman rural landscape, site classification between survey, excavation and historical categories. [JRA Supplementary Series Number 88: M.E. Landon and J.H. Humphrey], Portsmouth, Rhode Island.


survey, excavation and historical categories. [JRA Supplementary Series Number 88: M.E. Landon and J.H. Humphrey]. Portsmouth, Rhode Island, pp. 43-54.


Table of Contents - Attachments

Chapter 1: Introduction

Part A-I: Survey Methodology: An Introduction................................................................. 1
Part A-II: Post-deposition and Methodological Problems.................................................. 4
Part A-III: Classification vs. Typology.................................................................................. 8

Chapter 2: The analysis of site-classification systems

Part B-I: Survey-projects Map ............................................................................................ 10
Part B-II: Introduction of the incorporated Projects............................................................. 12
  -Project #1: Witcher (2012)............................................................................................ 15
  -Project #2: Rathbone (2008)........................................................................................ 16
  -Project #3.1: Perkins (1999)....................................................................................... 18
  -Project #3.2: Perkins 1999a-b (Discussed by van Leusen 2002)................................. 19
  -Project #3.3: Perkins (Discussed by Fulminante 2008)................................................. 20
  -Project #4: Arthur (Discussed by Van Leusen 2002).................................................... 21
  -Project #5: Dyson (1978)............................................................................................ 22
  -Project #6.1: Carandini et al. (2007)........................................................................... 23
  -Project #6.2: The projects included within Fulminante (2008)...................................... 24
  -Project #7: Guiseppe et al. (2002).............................................................................. 25
  -Project #8: Mills & Rajala (2011)................................................................................ 27
  -Project #9: Vermeulen (2012)..................................................................................... 28
  -Project #10.1: Haas (2011)......................................................................................... 29
  -Project #10.2: Attema, De Haas, La Rosa (2003)......................................................... 31
  -Project #10.3: Van Leusen (2009)................................................................................ 32
  -Project #11: Ghisleni et al. (2011)............................................................................... 32
Part B-III: Site-classification Tables.................................................................................... 345
Part B-IV: Table of Classificatory Dichotomies................................................................. 49
Part B-V: Graphs of Classificatory Dichotomies................................................................. 52
Part B-VI: Scatters-size Graphs......................................................................................... 54
Part B-VII: Material Classification Graphs......................................................................... 58
Part B-VIII: Site-characteristics per Site-type..................................................................... 63
Chapter 3: The analysis of excavated examples

Part C: Excavated cases Map........................................................................................................... 47
Part C-II-A: Ground-plan Typology .................................................................................................. 69
Part C-II-B: Ground-plan Typology: Text.......................................................................................... 73
Part C-III: Introduction of the incorporated projects ........................................................................ 78

- [Ex-1.1]: Monte Forco ................................................................................................................. 81
- [Ex-1.2]: Anguillara Sabazia ......................................................................................................... 82
- [Ex-1.3] & [Ex-1.4]: Grotte S. Stefano .......................................................................................... 83
- [Ex-1.5]: Monte Cuculo .............................................................................................................. 83
- [Ex-2.1]: San Casciano in Val di Pesa .......................................................................................... 84
- [Ex-2.2] & [Ex-7.4]: Rho-Lucernate ............................................................................................. 86
- [Ex-2.3] (& [Ex-8.1.1-4]): Tor Bella Monaca .................................................................................. 87
- [Ex-3.1]: Aguglia .......................................................................................................................... 89
- [Ex-3.2]: Nocelli ............................................................................................................................ 90
- [Ex-3.3]: Colle Faustiniano / Casale Lauri .................................................................................... 91
- [Ex-3.4]: Lucca .............................................................................................................................. 91
- [Ex-3.5]: Posto ............................................................................................................................... 92
- [Ex-4.1]: Metana – Le Pianelle ..................................................................................................... 93
- [Ex-5.1]: Sambuco ........................................................................................................................ 94
- [Ex-5.2]: Posta Crusta ................................................................................................................... 95
- [Ex-5.3]: Ager Lunensis ............................................................................................................... 96
- [Ex-6.1]: Mancamassone ............................................................................................................. 97
- [Ex-6.2]: Leonessa ....................................................................................................................... 98
- [Ex-7.1]: Colli di Enea .................................................................................................................. 99
- [Ex-7.2]: Selvasecca ................................................................................................................... 100
- [Ex-7.3]: Schito-Colle d’Arte ....................................................................................................... 101
- [Ex-8.1]: Tor Bella Monaca ......................................................................................................... 102
- [Ex-8.2]: Boscoreale Giuliana ..................................................................................................... 102
- [Ex-9.1]: San Rocco ..................................................................................................................... 103
- [Ex-9.2]: Metaponto ..................................................................................................................... 103
- [Ex-9.3]: “Le Plane” .................................................................................................................... 104
- [Ex-10.1]: Settala .......................................................................................................................... 105
- [Ex-10.2]: Orbetello ..................................................................................................................... 106
Chapter 4: The Centocelle case-study

Part D-I: Overview of Human Activity ................................................................. 152
  -Site #1: S.5 ...................................................................................................... 153
  -Site #2: Villa ad duas lauros .......................................................................... 154
  -Site #3: Villa della Piscina ............................................................................ 156

Part D-II: GIS: Spatial Analysis Maps ................................................................. 160
  -[1] Amphorae (‘Anfore’) .................................................................................. 162
  -[2] Coarse Ware ............................................................................................... 164
  -[3] Cooking-ware (‘Ceramiche d’uso comune’) ............................................ 166
  -[4] Vernice Nera .............................................................................................. 168
  -[5] Sigillata Italica ........................................................................................... 170
  -[7] Dolia ........................................................................................................... 174
Chapter 5: Conclusion

Part E-I: Reflecting on the Thesis ................................................................. 185
[Attachments]:

“Chapter 1: Introduction”

Part A-I:

-Survey Methodology: An Introduction-
Introduction
As not all readers will be evenly acquainted with survey archaeology, this part of the attachments will be used to give a brief overview of its methods, reasoning and development:

An archaeological (field) survey can in general terms be described as a “Systematic attempt to locate, identify, and record the distribution, structure, and form of archaeological sites on the ground and in relation to their natural geographic and environmental setting” (Darvill 2008, 22). In practice this boils down to systematic mapping of archaeological remains located on or in the topsoil of a certain (pre-defined) area. The survey crew traverses the field in systematic order, most commonly by use of units¹ within a grid system, examining the ground and identifying minor fluctuations in the character of pottery distributions on the surface (generally called surface scatters²). Clusters of potsherds or building debris lying on the surface³ may be remnants of occupation or another human activity in the past (Greene 2003, 38-39). Once a scatter (i.e. ‘site’⁴) is recognized, additional information on its location and nature is recorded: general topographical position, material assemblage⁵, weathering of the material, etc. (Bogucki & Crabtree 2004, 29-30). In addition, a sample of the archaeological material is collected (usually in the form of a selection of the pottery wares and shapes, as represented by the present pottery sherds). This will make further analysis of the material assemblage and intercomparison between individual sites possible.

As the surveying method provides a quick and easy way to traverse large areas, it is perfect for the spatial analysis of a landscape⁶. “The greatest significance of all landscape archaeology is the way it has replaced the focus on single tightly defined sites with an interest in much bigger areas that are more closely matched with the physical scale at which human societies operate.” (Darvill 2008, 238). By discovering and recording all sites present within a certain area, and then overlaying them with the chronological data recovered from the collected ceramic material, the archaeologist can study the changes in the spatial distribution of sites from one time period to the next. Central to this method is thus the question of how the settlement pattern in a given region unfolds over the course of time (by use of site distribution maps per period). Within larger comparative studies it therefore seems possible to trace the long-term development of settlement patterns within an entire region.

Survey’s broad outlook on regional development is in sharp contrast to the overview given by an excavation, which mainly focuses on an individual site. This more topographically restricted method however, has its own advantages. By restricting itself to a single site, the fieldwork allows the archaeologist to plumb the depths of a given site in greater detail (Bogucki & Crabtree 2004, 30). A proper excavation will provide the researcher with a detailed stratigraphy of the site, which in turn plays a key role in determining the site’s chronology and development. The individual stratigraphical layers give an insight into the site’s development over time (e.g. the law of superposition⁷), as well as identifying the site’s full date-range. An excavation thus permits the archaeologist to uncover the internal layout of a certain site, something already lost or unobtainable in most surveyed examples.

¹ I.e. a numerically denominated fixed area, which is used to equally divide the field in statistically comparable spaces.
² Surface scatter = "Spreads of humanly worked material." (Darvill 2008, 442), indicative of the area of archaeological interest.
³ The basic assumption is made that the top-soil contains distinctive traces of archaeological activity - footprints of what has gone on in the past. In this sense the topsoil is treated as a single extensive open archaeological context. (Ibid., 157).
⁴ Site = “A term used to define places of archaeological interest.” (Ibid., 420).
⁵ Assemblage = “1. An associated set of contemporary artefacts that can be considered as a single unit for record and analysis. 2. All of the artefacts found at a site, including the sum of all sub-assemblages at the site.” (Ibid., 27).
⁶ Spatial analysis = "The aim of spatial analysis is to recognize and understand patterns and regularities, which can be achieved using a variety of statistical and mathematical approaches.” (Ibid., 428).
⁷ As in the case of geology, the layer (or stratum) on top is younger than the one below.
Development of the Survey methodology

The field of survey archaeology has seen a rapid development over the past 60 years, developing from simplistic travellers’ accounts to a broad and methodologically driven topographical discipline. The most important surge in interest came during the 1950-60’s, when the landscapes in many parts of the Mediterranean were under threat of large scale urban development and the standardisation of mechanised agricultural ploughing. To secure the collection of archaeological data from these areas, large scale regional survey projects were setup all over the Italian countryside.

Initially, most field survey projects could be characterised as extensive (covering large areas systematically, but purely site-driven and in relatively low intensity), based firmly in the processual paradigm. Many researchers believed it to be a cheap alternative to the time-consuming excavations (Yntema 2002, 2). Most archaeologists from the 1970’s considered regional fieldwork (i.e. survey) primarily as a simple tool to produce a ‘sites- and monuments-record’ (map sheets containing all identified archaeological material in a given area), or merely the first step in locating a site suitable for further excavation (S. Alcock and J. Cherry 2000, 3). This made the interpretation of ceramics collected during a field survey quite a simple process: “date the sherds, date the site, stick the dots on the map” (Whitelaw, 1994)” (cited in Alcock & Cherry 2000, 2). After the sherds had provided all their information and a site was selected for excavation, the “real” (in-depth) fieldwork could begin. Some of the archaeologists even had the ideal that survey projects would someday replace excavation altogether, leaving the collected sherds to provide all the necessary archaeological data.

In the 1980 - 90s, this changed however, when the field of research developed increasingly intensive and refined methodologies. This came hand-in-hand with the technological developments, which had provided new ways of collecting, storing and interpreting data: “The introduction of desktop computers, GIS software and more recently, mobile technologies (PDAs, GPS receivers) contributed to increasingly efficient field procedures and to enhanced possibilities for the storage and spatial analysis of large amounts of data.” (De Haas 2011, 1). Together, they made survey-archaeology what it is now: a legitimate academic pursuit (rather than a simple site-location tool; Patterson et al. 2000, 262; Barker & Mattingly 1999-2000; David & Thomas 2009). The field includes a variety of topics: “site size, site function, and site status” (Whitelaw, 1994).

As the methodological approaches developed, archaeologists became more and more aware of the biases and research problems that were intrinsic to the field of survey archaeology. Although site-orientated surveys still dominated the field, the concept of off-site material became more important. From this point in time the archaeological landscape was interpreted as a whole, investigating both high-density peaks as well as low-density artefact distributions. Although present day surveys have not yet become truly ‘site-less’, and methodologies still vastly vary per project, these general developments in the research field have led to a more intensive and systematic approach (collecting data on off-site areas where needed).

---

8 Geographic Information System (GIS) = “A combined database and mapping system for the capture, storage, and manipulation of geographic data.” (Darvill 2008, 169).
9 Meaning the reflection of status of the inhabiting individuals at a given point in time (Whitelaw 1994).
“Chapter 1: Introduction”

Part A-II:
-Post-deposition and Methodological Problems-
Introduction
As with all research methodologies, (field) survey and excavations are both affected by a degree of uncertainty. This includes the very definition of an archaeological site, the dating of pottery (e.g. coarse wares), and understanding of depositional and post-depositional processes. For these reasons, it is important for archaeological projects to consider (A) how the archaeological data might have been affected by post-depositional factors and (B) what might be represented in the surface of the ploughsoil (and what not). Understanding taphonomy is especially important to understanding the archaeological record, how it is formed and how it is found. This is even more crucial because different methods (like field survey and excavation) deal with post-depositional processes on a different scale. And, as the potential of these investigations depends strongly on the representativeness of the surface distributions in relation to buried features, understanding their effects on the material is the key.

Post-depositional factors and biases
Since their deposition, the archaeological objects have been exposed to a wide range of cultural (anthropogenic) and natural processes, that may or may not have affected the materials in a variety of ways. Organic artefacts decay; looting takes away; ploughing, construction and burrowing animals displace artefacts; and natural erosion changes the objects (Bogucki & Crabtree 2004, 26). A good understanding of taphonomic processes and their effects will also be essential for interpreting the results from any project, be it survey or excavation.

When working in a survey project for instance two main areas of interest are associated with taphonomy: ‘attrition’, which is the gradual decomposition of the sherds (impact, abrasion, frost wedging; Van Dommelen 2000, 27) and ‘displacement’, their physical movement in the ploughsoil (tillage, geomorphology and biogenic; Taylor 2000, 19-23).

The first aspect, which deals with the way sherds are damaged by the post-depositional processes (i.e. mechanical ploughing), is of great influence as it results in the loss of the most significant and therefore usually diagnostic features of the pottery (Van Dommelen 2000, 27). Sadly, most pottery classifications used in archaeological research are also based upon these formal features (decoration, finishing or details in shape). Ware- and fabric-analysis of the sherds could be helpful in certain cases, but suited reference collections are not available in every region. Furthermore, the quality of the pottery also influences the survival rate of the sherds in the ploughsoil: better fired, and thus harder pottery types are more likely to survive in the effected assemblages. This could lead to biases in pottery types when setting up typological or functional pottery groups (Ibid., 27), as well as produce incorrect sherd-count.

The second aspect, which describes the physical displacement of sherds within the ploughsoil, might be even harder to understand. During the 1980’s a group of researchers tried to simulate this process within the ‘Butser Ancient Farm Research Project’ (Reynolds 1982/1987/1988). By using replica sherds of plastic resin, and exposing the fields to different kinds of agricultural techniques, a displacement-model could be developed (Taylor 2000, 23). One of the experiment’s general outcomes was that horizontal displacement of sherds was likely due to cultivation processes, rather than the ploughing itself, as was thought earlier. Due to the hardened nature of the fake resin sherds however, no assessment could be made on the rapidity of the ceramic disintegration once the sherds were incorporated within the plough zone.

10 "Lewarch and O’Brien list the five principal biasing processes associated with cultivation: 1) lateral displacement of artefacts; 2) vertical displacement of artefacts; 3) changes in class frequencies; 4) alteration of the form and content of features and 5) changes in the condition and preservation of artefacts.” (Tol 2012, 212).

11 Fields that are regularly ploughed, often produce higher sherd-counts, due to an increased breakage rate. Brittle fabrics become more fragmented, but leave large amounts of sherds, whilst large well-recognized fragments are picked up more easily by the survey-crew, but have initially fewer sherds (Winther-Jacobsen 2010, 50; cited in De Haas 2011, 27-28).
A final problem concerns the direct relation between collected samples (from the ploughsoil), and the original deposits. Winther-Jacobsen (2010) has proposed that material collected from the surface at best only comprises a small fraction of the total ploughsoil assemblage (perhaps some 5%). In turn, this is only a small part of the total original archaeological assemblage deposited. As we, survey researchers, generally only take a sample of approximately 20% from the field, an even smaller number of the original sherds is collected. Overall, the ploughsoil assemblage collected from the field by a survey archaeologist might be a mere 1% of the total assemblage that was originally buried within the ground (Winther-Jacobsen 2010, 50; cited in: De Haas 2011, 27-28). One could thus severely doubt whether the material collected in the field is even representative.

Based on this range of biasing factors within archaeological survey results and practices, one should reconcile with the fact that even the most perfectly designed methodology under the best possible circumstances could never hope to find traces of all the cultural activity in a particular area: “Even if you plan to walk every square meter of land, there will always be more to find. There is never a final survey.” (Collins & Molyneaux 2003, 19). Due to all these variables and other subtle biases in survey techniques, which in turn influence the quality of the information retrieved in a survey, it is highly important to develop a consistent research design and survey plan. Site-classification is one of the key aspects within this practice, and will therefore be discussed in detail below.

Methodological influences

When comparing data from two different archaeological research methods, like excavation and field survey, one should take into account the differences in methodology that shape both sets of material. This includes not only how the material is collected, but also the differences in interpretive models, material characteristics noted (i.e. size, weight, function, chronology, and spatial relation) and research questions of the project. Part of this is very important when considering if both methods are, ‘a priori’, suited for intercomparison studies. Is there enough overlap between the two methods to use both datasets in the same context? And if not, how can this be adjusted to fit both methods?

In his article “The current state of early medieval and medieval ceramic studies in Mediterranean survey” Patterson (2000, 110-111) stated that survey projects have five inherent aspects / problems that influence the data-set: (1) poor understanding of ceramic types (thus lacking the datable ‘fossil guides’), (2) visibility (also addressed by Terrenato 2000, 60), (3) differences in collection strategies and site definition, (4) the lack of excavated contexts and (5) the problematic relationship between documentary sources and archaeological evidence. As an extra (6) aspect he added the human element, which influences the collection of data directly. It is this last aspect that influences the cases discussed in this paper most directly. This aspect is reflected in project dependent methodologies discussed throughout the thesis, and is key in understanding archaeological results.

Another main problem is connected to the dating of sherds and sites, which had paradoxically been the main use of survey data. When looking at the date-range of sherds one should always be aware of the fact that the archaeological date attributed to a sherd is based on a generalization of a group of typological similar pieces (from stratigraphic assemblages; often spanning hundreds of years). Pottery chronologies are therefore “neither absolute nor precise but are the result of a process of generalization and interpretation which make them inherently fuzzy.” (Millett 2000a, 54). Additionally, it is never certain if field survey assemblages were deposited at the same time and if they were divided equally across its date range (Millett 2000a, 56). A researcher should thus always be careful when accessing date of sherds or site without the connection of those survey pieces with ones found in stratified context.
What is a ‘site’?

The term ‘site’, already briefly mentioned in the paragraphs above, is one of the main defining factors within archaeological practice. Described in textbooks simply as “any locus of past human behaviour”, and thus in essence seen as the primary unity central to archaeological investigation, its true usefulness in present day archaeological practice is still debated (McManamon 1984, 226; cited in: Banning 2002, 81). Based on its definition, the concept of ‘site’ is placed in the past, dynamic, behavioural realm (i.e. a direct result of a string of past cultural activities)\(^\text{12}\). This, whilst archaeological survey (and excavation) can only be expected to find materials in the present archaeological record (Schiffer 1987; cited by: Banning 2002, 81), a record which could have been heavily influenced by natural phenomenon or modern activities. The archaeological site is thus more a theoretical concept, than a true historical clustering of material, making it essential to define it very carefully.

---

\(^\text{12}\) “The concept of ‘site’ is deeply embedded in the typological background of the culture-history paradigm in archaeology, and its empirically orientation towards field methodology.” (Kuna; cited in: Bintliff et al. 2000, 31).
Part A-III:
-Classification vs. Typology-
The philosophical debate
When dealing with site-classification systems from different sources and researchers (as is the case throughout this thesis), it is essential to be consistent in the use of terminology. Within archaeological publications for instance, the terms ‘classification’ and ‘typology’ are often, wrongfully, used interchangeably. Even though there is a definite distinction between the two. This paragraph will try to provide a clear overview of the difference, which will be used throughout the thesis.

In their methodological book “Archaeological Typology and Practical Reality”, Adams & Adams defined classification as: “any matched set of contrasting categories” (1991, 47). A typology, on the other hand, is a particular kind of classification, specifically designed to sort the entities into mutually exclusive pigeonholes. Classification is thus used for simple communication of included types and their characteristics, whilst a typology includes inherent information of an interpretative nature. In essence, this distinction boils down to the fact that typologies require practical distinguishing factors, whilst classifications can simply be of a theoretical nature: “While the classes in a classification need only be theoretically distinct, and the distribution between them may even require cumbersome verification, the types in a typology must be practically distinguishable.” (Ibid., 297). The distinction is quite crucial, as it means that typology is a particular kind of classification, designed not merely for categorizing and labelling, but segregation within discrete groups (corresponding to our class-categories and site-types). In short: a ‘typology’ is thus a particular kind of ‘classification’, made specifically for the sorting of entities (Ibid., 47).13

Based on the above outlined description, it seems that an archaeological site-classification has more in common with a typology, than a general classification. The site-types, defined in a site-typology, follow a hierarchical structure, and are based on definable differences in characteristics. It is therefore important to describe the typology as a term in more detail. Strictly (methodologically) speaking, a typology is a conceptual way of partitioning specified entities and cases within a comprehensive set of (often) mutually exclusive types (Ibid., 9). The divisions are made based on a set of common criteria, either including or excluding entities, which are devised by the typologist himself. A true typology thus consists of a set of the following components: “(1) A typology is in essence a conceptual system (2) made by partitioning (3) a specified field of entities (4) into a comprehensive set (5) of mutually exclusive types (6) according to a set of common criteria (7) dictated by the purpose (8) of the typologist. (9) Within any typology (10) each type is a category (11) created by the typologist (12) into which he can place discrete entities (13) having specific identifying characteristics (14) to distinguish them from entities having other characteristics (15) in a way that is meaningful (16) to the purpose of the typology.” (Ibid., 91). Within each of these steps, the influence of the methodological and theoretical background of the researcher to be stressed, further permeating into the results through methodological choices. In essence: “There is no such thing as objectivity, that we are all just interpreting signals from the universe and trying to make sense of them.” (BONES; Season 6 episode 9).

Unfortunately, the above mentioned difference in terminology (between classification and typology) is not always maintained in archaeological projects and publications. This is especially the case in the practice of survey archaeology, where terms like ‘site-classification system’ and ‘site-typology’ are often used interchangeably. To assure clarity within this thesis, I will therefore follow the line of thought proposed by Adams & Adams (1991), and define the terms as follows: when speaking of site-classification systems, I mean the categorization of sites provided by the individual projects and their original researchers. These are primarily based on the methodological choices and preferences of the researchers. In general terms, they are thus a simple means of communicating the way the authors chose to identify the sites they encountered. This is in sharp contrast with site-typologies, which (in my view) include the observable differences in archaeological material (and other characteristics) that indicate definable site-types. It is thus a true sorting of the encountered cases, based on a set of defining characteristics. Most of these typologies also include a hierarchical element (which is not always presented in the site-classification systems).

13 An overview of the terminology: (A) the process of segregation is called ‘sorting’; (B) the things that are classified or sorted are called ‘entities’; and (C) the categorical groups into which they are sorted are called ‘types’ (Adams & Adams 1991, 47).
Part B-I:
-Survey-projects Map-
Case-study location Map


Project Group (I) (Green): The Pontine Region Project [10]; Lake Fogliano Survey [10.1 & 10.2]; Monti Lepini [10.3].

Project group (II) (Blue): South Etruria [1(C)]; Ager Faliscus Survey [2].

Project group (III) (Orange): Albegna valley (+ Ager Cosanus) [1(A); 3.2 & 3.3]; Settefinestre [3.1 & 6.2(A)]; Roman colony of Cosa [5].

Project group (IV) (Pink/Purple): Tiber Valley Project [7]; The Sabinensis Ager Survey [7].
“Chapter 2: Survey”

Part B-II:
-Introduction of the incorporated Projects-
Introduction of the Project-list:

This part of the attachments will discuss the individual survey projects included as case-studies within this part of the chapter, as they form the base of the analysis. The projects will be discussed in accordance to the system and dichotomies derived from Witcher (2012; already discussed in the main text of this thesis). By discussing and scrutinising the different site-classification systems encompassed within the case-studies, as well as the underlying methodological questions, the different site-types can be truly compared.

The project descriptions include: an introduction on the surveyed area, the aims of the project, its methodological background and the personal comments of the publication’s author (both main conclusions and reason behind the intended publication). Specifically the aims of the survey-project are of great importance for the review of individual site-typologies, as the initial stages of the analysis (as well as the earlier research by Witcher 2012 and Rathbone 2008) already proved that the site-classes implemented by individual survey projects are heavily “biased” towards the aims and intended outcome of the fieldwork. Discussing the individual site-classification systems in close reference to the aims and set-up of the project could thus possibly explain certain differences between classification systems or site-classes.

In total, sixteen individual site-classification systems from eleven different projects\(^ {14}\) were selected (see table 1; p.14). They present both the methodologies devised at the beginning of a project, as well as later reflections on the implemented methods and criteria. The projects themselves can be sub-divided into two distinct groups: (A) ‘single classification systems’, describing a particular site-classification system linked to one of the major archaeological survey projects, and (B) a series of ‘methodological comparison studies’ (in review and analysis articles), which discuss a set of different site-classification systems or individual site-types from a hand full of survey projects\(^ {15}\). Both groups are incorporated in the dataset from the analysis. The first group forms the primary dataset for the analysis, the second presents an additional point of interest for the methodological reasoning behind certain site-characteristics. Through analysis of the latter group, we can get particular insight into the inner workings of developing a fitting site-classification system, as well as how and why to work towards a fitting site-classification scheme.

Group (A), ‘the single classification systems’, includes thirteen individual site-classification systems (from nine main survey projects): ‘The Albegna Valley and Ager Cosanus Survey’ (Project #3.1, Project #3.2 and Project #3.3); Arthur’s ‘Northern Campania Survey’ (Project #4); Dyson’s description of the survey around the ‘Roman colony of Cosa’ (Project #5); ‘The Suburbium Project’ (Project #6.1 and Project #6.2); ‘The Sabinensis Ager Survey’ (Project #7); ‘The Nepi Survey’ as introduced by Mills & Rajala (Project #8); Vermeulen’s ‘Potenza Valley Survey’ (Project #9); ‘The Pontine Region Project’ (Project #10.1; Project #10.2 and Project #10.3); and lastly ‘The Roman Peasant Project’\(^ {16}\) (Project #11).

Group (B), ‘the methodological comparison studies’, includes three papers on the usage of independent site-classification systems (from a whole range of different survey projects): Witchers JRA-article on the analysis of the site-classes from Roman rural site (Project #1); Rathbone’s article on the combination of the ‘Ager Faliscus Survey-classification-scheme’ with recently excavated examples (Project #2); and Fulminante’s PhD-Thesis on the site-categories implemented within the overarching ‘Suburbium Project’ (Project #6.2).\(^ {17}\)

\(^ {14}\) The classification systems were grouped per project to allow a filtering of identical data between systems for the same ‘mother’-project. This is also the case for the ‘methodological comparison studies’ within the articles.

\(^ {15}\) The value of these projects lie in the way they give insight into the more methodological questions connected to the setup of a site-classification system.

\(^ {16}\) This last project is of special interest, as it uses a combination of surface survey results and detailed excavations of the smallest Roman sites (and their off-site scatters).

\(^ {17}\) References in the text below are to tables in Pt. III part of the attachments.
<table>
<thead>
<tr>
<th>Project</th>
<th>Project Name</th>
<th>Author</th>
<th>Project Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>[#10.1]</td>
<td>‘The Pontine Region Project’</td>
<td>De Haas (2011)</td>
<td>Single Classification System</td>
</tr>
</tbody>
</table>

Table 1: A table listing the individual survey projects included within the data-set. A division is made between ‘Single Classification Systems’ and ‘Methodological Comparison studies’.
In his 2012 article published in the JRA\textsuperscript{18} Witcher compares the classification of Roman rural settlements within different fieldwork projects.\textsuperscript{19} His view on the subject was essential for my own analysis, and provided valuable information on not only the differences in site-classification system, but also the importance of investigating the subject.

During his research Witcher noticed that most (early) Italian villa-studies relied heavily on historical texts to interpret recorded sites. Site-interpretations were based on the works of historical writers: some using Cicero and Pliny the Younger, who described the villa’s as Late Republican / Early Imperial aristocratic “palaces” (combining culture, leisure and politics), others (mainly Marxist archaeologists) the works of Cato and Varro, which identify the buildings more as Early Republican villa-estates showing a socio-economical significance through a slave-based model of production (Witcher 2012, 14-16). The selection of the sources seems to be based on their correspondence with the view of the archaeologist himself: adopting what corresponded, discarding what did not.

This process of implementing information of historical sources led to an archaeological discourse in which researchers used historical site-typologies to interpret uncovered archaeological material. Carandini and Torelli for instance devised specific text-based villa types, complete with an evolutionary scene, to be used in archaeological investigations. In the course of the 1970’s however, this (inappropriate) use of historical text and idealized site-types (which try to neatly fit the archaeological record) have become a point of debate. Percival concluded in 1976 that: “There is no reason to suppose that they (i.e. villas) formed a distinct and easily definable category to the Romanists themselves, and to ask that they should do so to us may well be unreasonable.” (Percival 1976, 13; Witcher 2012, 14-16). Although much has changed since this remark was made, it started the re-evaluation of terminology and led to a further disassociation from the text-based models (as well as the socio-economical interpretation of the building\textsuperscript{20} related to this). In the end, this process eventually made archaeological interpretations more functional-based (leaning heavily on the remaining material evidence).

Whilst comparing the site-classifications he chose for his analysis (by use of his list of classification dichotomies; already introduced in the main text of this thesis, Witcher made a couple of observations (see table 2; p.35): (1) the systems incorporated both emic and etic categories (literally based for the higher up sites, locally based for the smaller ones), (2) used both local and global definitions (pre-defined and locally adopted) and (3) define both relative / absolute as well as qualitative / quantitative material assemblages (e.g. small farmsteads with > 10% storage ware). Unfortunately, these three aspects cannot be checked by me, as not all methodologies of the survey projects are incorporated within Witcher publication. I am therefore reliant on his interpretation and conclusions.

However, what can be deduced from the information Witcher provided is that the individual research projects do not come to a consensus on the overall definitions for a villa-type building. Although most of the systems have an overlapping scatter-size for the villa-type, the range still is very large (the lowest at 2,200 m\textsuperscript{2}, the highest at 5,000 m\textsuperscript{2}). In addition, not all projects are as detailed about their definition of the site-specific material assemblages. Some provide a detailed list of characterizing archaeological materials, whilst others simply mention building material or

\textsuperscript{18} Journal of Roman Archaeology.

\textsuperscript{19} E.g. South Etruria, Biferno valley, Liri valley, San Giovanni, Northern Campania, Albegna valley, Rieti Basin.

\textsuperscript{20} With a focus on private property, slavery and production.
the presence of standing structures (without further specification). This is further complicated by the fact that certain systems do not include all aspects in there system (lacking either scatter-size, material evidence, or even both). On a concluding note we might say that the systems mentioned in this analysis are rather unsystematic in nature, even if only based on the villa-classes. A generalization of approaches would therefore be desirable, sparing us the time of systematically deconstructing the unique classes of every individual survey project in order to understand its meaning.

Project #2: Rathbone (2008):


In his publication Rathbone analyses the way in which Republican farmsteads are classified within archaeological contexts, by combining the site-classification method implemented by T.W. Potter in his Ager Faliscus Survey (subpart of the South Etruria Survey) with a combination of excavated examples (similar to the set-up of my own thesis). From this data he concluded that the simple division of sites into two implicitly distinct and unitary categories (like farm and villa) is unjustified and unhelpful (Rathbone 2008, 306-307).

During the 1950’s the Italian urban landscape underwent several changes: large areas of woodland and pasture were made ready for cultivation, which brought forth the disclosure of the ancient archaeological landscape. The director of the BSR’s, John Ward Perkins, saw this as both a blessing and a curse as “Whole regions are accessible today as they have never been before, and within them the bulldozer and the mechanical plough are busy destroying whatever lies in their path.” (Ward-Perkins & Frederiksen 1955; Potter 1979, xiii). He therefore set up a project to investigate the area: ‘The South Etruria Survey’. The project initially concentrated upon the identification of Etruscan / Roman road network (with associated sites / monuments), but fairly quickly developed into an extended systematic field survey of the whole region. Eventually it examined approximately 1,000 km², in which 2,000 sites were recorded (Potter 1979, xiii).

One of the sub-projects within the South Etruria Survey was Potter’s Ager Faliscus Survey (1966-1971; The Roman colony of Falerii Novi). It included not only the surface survey of the central and southern part of the Ager Faliscus area, but also a number of excavations projects (providing a chronology for local pottery types; Potter 1991, 1). The survey encompassed an area of approximately 200 km² (75% of which was open terrain with great visibility), in which a total of 494 sites were recorded (ranging from the Palaeolithic to the later Middle Ages; Potter 1991, 2). Unfortunately the publications did not mention the exact survey strategy implemented in the area (no information on team-members or walking intervals), only that the methodology was highly influenced by Ward-Perkins and probably site-orientated (like the other South Etruria Surveys). The encountered sites (mainly consisting of large quantities of building material) were sufficiently definable within the field to enable rough scatter-size quantification. In some instances the measurements were accompanied by the identification of individual building areas within these scatters (Potter 1991, 2).

After the introduction of Potter’s survey project, Rathbone analysed the classification in detail (see table 3; p.35). Of specific interest to him was the typical identification of the smaller farmstead. Potter had adopted a tripartite division of sites, based primarily on scatter-size and the presence of specific find-types. The three classes he defined were: (A) extensive scatters (app. 3,500 m²) which included dense concentrations of building material and luxurious architectural components; (B) medium sized scatters (1,000 – 1,400 m²) which included a far less extensive concentration of

21 The British School at Rome.
building material in combination with some decorative items / elements; and (C) small scatters (app. 100 m²) which consisted solely of small scale tile and pottery concentrations. In a hierarchical order he labelled them (from high to low) as: (A) villae, (B) farms and (C) huts, providing detailed descriptions of to be expected material assemblages complete with relative amounts per find-category (Rathbone 2008, 305-306). Within his typology huts represented a range of sites from temporary shacks, outbuildings of estates, to even degraded farms. The smallest class was thus effectively used as a conglomerate of difficult to define small scale sites, rather than what is to be expected small farmstead-site. Potter thus factually sub-divided the classes into two distinct groups: villa and farm. The strict division is also apparent from the scatter-size classes: groups are not overlapping and include large gaps between size-ranges (the farmsteads stopping at 1,400 – 2,000 m², whilst the villae centre around 3,500 m²).

This kind of site-classification based primarily on scatter size (dividing encountered sites into small and large sites, directly related to the farm / villa typology), is also used in many other site-classification systems (see also the earlier mentioned Witcher 2012). Ancient sources even mention a similar sub-division between small scale peasant farmsteads and large scale slave-staffed estates within the Late Republican Period. Rathbone however advocates that if we want to use archaeological survey data as an independent means to analyse the (landscape) development during this period, it would be better to keep away from historically dependant typologies, and use more objective means to classify the data (Rathbone 2008, 305-306).

Republican farmsteads have however never received an in-depth monographic study (discussing the range of scatter-sizes and size-types) to make an objective classification possible. It is especially striking how few small farmsteads (ground plans of < 250 m² or 400 m²) have been excavated (or published). Partially this can be explained by the lesser attention these small sites get in large scale research or rescue excavations. Additionally, it was common practice for successful farmhouses to expand / build over, leaving little evidence for their earlier occupation and land-use aspects. Regular clearing of sites, including the clearing practices just before abandonment, could also explain the loss of data. Rathbone however suggests that the main reason for the lack of material in the earlier/small scale farmsteads is due to the flimsy nature of their archaeological trace.

Throughout his article Rathbone shows that research into small (Republican) farmsteads is likely to produce more questions than conclusions. It became apparent that the reasoning behind a basic distinction of site-types by use of scatter-size is flawed, as both the written sources and excavation reports reveal a very broad spectrum of sizes and ground plans. A project in which a dozen small farmsteads would be excavated, giving particular attention to the relation of “surface traces to remains below ground, the type, quantity, and location of small finds excavated, the apparent continuity or discontinuity of occupation, and the faunal and botanical evidence for agricultural practices”, would therefore be widely appreciated (Rathbone 2008, 329).

22 Whilst defined in absolute terms (e.g. “100 m²”), the site-types include also relative sizes (e.g. “small sized scatter”). Potter thus found a direct correlation between the scatter-size threshold and the interpretation of the site: either as a “farm” or “villa”. As well as a functional interpretation of the site based on the materials present.
23 An exception to the rule is Rossiter (1978) who pioneered with an attempt to general classify Roman farm buildings (Rathbone 2008, 306).
24 Their existence is evident from a few examples: ‘Monte Forco’ and ‘Nocelli’ (and additional aerial photography).
25 From the excavated examples the medium farmsteads (Boscoreale Stazione and Villa Regina) showed a wide range of ceramics / metal objects, whilst the material evidence from the small / medium farmsteads is much poorer, consisting solely of coarse-ware and a few fine-ware (e.g. ‘Monte Forco’, ‘Nocelli’, ‘Villa Sambuco’, ‘Posto Crusta’; Rathbone 2008, 324-325).
27 Of course, the modern deep ploughing practices, address the question of repeatability of survey projects, as decades had degradable and dispersing effects on poorer sites in particular (Rathbone 2008, 325-326).
Project #3: The Albegna Valley and Ager Cosanus Survey:

Within this sub-paragraph three different site-classification systems will be introduced, all connected to the ‘Albegna Valley’ and ‘Ager Cosanus Survey’ and devised by Philip Perkins. The first two will be classification systems used in the main survey project in the area, one published by Perkins himself in the book of Gillings et al. (1999), the other analysed by Van Leusen in his PhD-Thesis (2002). The third example is the classification system used in a sub-project of the Albegna survey, in which special attention was given to farms located on the northern bank of the Albegna river.

As all three of these systems belong to the same overall (‘mother’) project, similarities and overlap in the definition of site-classes between them is undoubtedly present. If these identical class-descriptions are all incorporated as individual data entries within the Access-database (for the analysis), the dataset will be biased towards certain site-characteristics. In other words, the site-types of three sub-projects are represented three times as much in the database as ‘singular projects’. To prevent this from biasing the outcome of my analysis, identical site-classes are excluded. The classes themselves will be discussed in detail below, per individual site-classification scheme.

Project #3.1: Perkins (1999):


The ‘Albegna Valley / Ager Cosanus Survey’ developed from the earlier excavations at the Roman villa of ‘Settefinestre’. Though the outcomes of this initial excavation project were very valuable in understanding the development of a villa-site, it could not provide enough information on the development of the area surrounding such a site. It was the later ‘Ager Cosanus Survey’ that addressed this specific question.

As the valley stretched over 1.000 km$^2$ (between the Albegna and Tafone rivers), a strict survey strategy had to be devised to sample a representative part of the area. A series of transects (1 km wide) were placed at regular intervals of 4 km (with a 20% sampling strategy). They were placed in a geometric pattern best suited for the topography of the valley (stretching the widest possible range of geographical variation). In some instances the transects were modified to take into account specific archaeological and geographical features (transects were for example widened around historical urban centres to included the complete area on and surrounding the site; Perkins 1999, 15). Visibility within the field determined the eventual intervals in which the transects were walked: 5 m for fields with ideal conditions (“freshly ploughed fields after a shower of rain”), 10 m intervals for fields with less ideal conditions (“with mature crops, pasture, stubble or fallow”). Extremely densely covered fields or fields with uncooperative proprietors were not sampled (Perkins 1999a, 16).

When a higher density scatter (or site) was encountered in the field, line walking was suspended. Walkers then tried to reconstruct the limits of the area and a grab-sample was collected from the scatter. Articulated sub-scatters within the area were, when visible, recorded individually (artefacts kept separate). Both topographic location and a sketch of the encountered site were recorded on a standard information-form. The collected artefacts were initially processed in the field: (roof)tiles were sorted and left in the field (retaining one example of each fabric-type for further analysis), diagnostic sherds (i.e. rims, bases, handles, decorated sherds and fine wares) were all retained, other pottery (like dolia) were also sorted, but in

---

28 The site-classification system from this publication was complemented by additional site-classes from other publications on the subject: Perkins 199b.
29 The Settefinestre excavation was a joint collaboration between Italian - British researchers and students. The project was coordinated by Professor Andrea Carandini (Carandini 1985; Perkins 1999a, 15).
30 In addition to survey, certain sites were excavated. Per site-type one or more of these examples are mentioned (Perkins 1999a, 18-27 & 65-67).
absence of diagnostic sherds all other material was retained. Per building material uncovered, a single sherd was retained (Perkins 1999a, 16).

The carefully designed stratified sampling system that was adopted in the Albegna Valley / Ager Cosanus Survey included a classification of surface scatters based on a combination of the overall nature of the archaeological material (i.e. scatter-size) and individual finds collected (i.e. a ceramic waster). The classification of the remains is polythetic in nature (see table 4; p.36), which means that no single criterion is necessary to classify each recorded site. This is represented in the site-types included within the system: it combines a list of hierarchically based main types (e.g. tomb, house, villa) with a range of sub-groups for the harder to define types (e.g. house / tomb). This special combination leads to the fact that there is some overlap in scatter-sizes (due to the sub-classes), but the main hierarchical line remains continuous (i.e. villa is larger than house 2 is larger than the house type). It is however striking that there is no defined farmstead-class within the system, making any examples originally belonging to this type fall somewhere between a large house and a small villa.

The material classification included within the system is quite specifically defined (of course only where possible), though including only relative indications of find-amounts within the assemblages. The functional interpretation of the classes is addressed in further detail within the additional notes, which also provides information on chronology and internal links between the different site-types. In addition the typology strives at including all possible stages of site preservation and differing degrees of site visibility (due to ploughing and erosion). Of special interest within the classification are the house-type (a class of beforehand poorly understood small Etruscan settlement sites) and villa-type (of which the best pre-served / excavated example is the local Settefinestre villa; Carandini 1985).

Project #3.2: Perkins 1999a-b (Discussed by van Leusen 2002):


The second example is again a site-classification system for the ’Albegna Valley / Ager Cosanus survey’ (Perkins 1999a / 1999b), mentioned in the PhD-Thesis of Martijn van Leusen (2002). Belonging to the same project, its aims and survey method are identical. Perkins again implemented a polythetic class system based on overall criteria of size (absolute), shape and density (relative), and / or specific finds or find types (some assemblages very de-tailed; see table 5; p.37). He again included the use of both main / sub-groups, leading to a overlap in material and scatter-sizes (especially visible within the house sub-groups). This empirical approach classifies sites on the availability of certain qualitative and quantitative criteria. Based on this combination, individual scatters can be sub-divided into chronological units31, providing a timeframe for the spatial developments within the area in combination with a functional analysis. In addition the method is very pragmatic in nature, and can be adapted by team-members in an ’ad-hoc’ manner, though it again lacks the farmstead-type.

---

31 Perkins does however underline that without full-scale excavations, not even distinct Roman sites would provide sufficient survey material evidence to unambiguously classify sites into clear historical types.
The final classification discussed in this paragraph is the one implemented by Perkins in a sub-project of the ‘Albegna Valley Survey’ (see table 6; p.38): a surface survey conducted between 1982-1984 centred around the analysis of a small settlement consisting of Etruscan farms located on a low terrace on the northern bank of the Albegna river (Perkins & Walker 1990, 8). Aim of the project was to hypothesise the role of the settlement within the larger Albegna valley.

The area, which consists mainly of arable farmland, gave the researchers an unparalleled opportunity to examine the settlement and its surrounding landscape almost entirely. A whole range of different research methodologies were thus implemented: pedological survey, geological investigation (geomorphology, soil charts and land-use patterns), aerial photography (crop marks analysis) and stratigraphic investigations (road cuts, field banks and ditches). Such a polymorphic investigation has led to a remarkable data-set, which can be used to shed light on site-formation processes, settlement layout, site size, activity areas and chronology (Perkins & Walker 1990, 4-5). Added information on post-depositional processes has placed the above mentioned outcomes into context.

The methodology within the field had three main scales of analysis: (i) individual buildings, (ii) groups of buildings, features or activity areas, and (iii) the overall site, or community itself (Perkins & Walker 1990, 5). Per scale aspects like chronology, size, layout and the placement of the activity areas were identified as most important, therefore central to the recording and retrieval strategy. They were implemented from the start of the sub-campaigns discussed in the above mentioned publication (Perkins 1999). In 1982 the enormous quantity of archaeological material in the plough soil made full coverage and collection impossible. The collection strategy was thus adopted to secure the maximum information possible during the span of the project. A relatively rapid systematic, though extensive, survey-method was therefore implemented. Team-members were spaced 4 - 5 m apart and surveyed the fields in transects. No survey grid was used and artefact clusters were measured in the field by pacing and estimating of distances. Sites were generally sketched and later carefully located on maps by use of prismatic compasses, topographic features and aerial photographs (related to the regularly placed rows of olive trees; Perkins & Walker 1990, 6). Per site detailed information on visibility, soil and topography were recorded, as not all fields had similar controlled conditions (which could bias the collected data).

After only a few days in the field the quantity of surface material turned out to be far greater than suspected, making total surface recovery impossible. The researchers therefore decided to collect judgementally “diagnostic” samples from each concentration (e.g. their defined sites). Within their publication they stressed the incomplete nature of their data-set (self-critique), but concluded that this was the only way to successfully work with the large body of data (Perkins & Walker 1990, 7-8).

The collected material (mainly diagnostic pottery with diagnostic features) was analysed with two main goals in mind: (i) identifying specific activity areas (including building, living, eating, discarding, food-processing, storage, metal-working, weaving and ceramic-manufacturing) and (ii) chronology (adding timeframe to the activity areas; though not directly clear from the site-classification system). A functional hierarchy was the base for the site-classification used within this project, leading to a list of main site-classes. Per class scatter-size (absolute) and material assemblages (relative) where mentioned, though not as specified or distinctively mentioned as the earlier mentioned site-classification systems. Some types for instance

---

32 The classification system was re-evaluated in the PhD-Thesis of Fulminante (2008), discussed later on in this chapter, in which she combined certain site-typologies to devise her own site-classification system.

33 “A detailed record of the spatial distribution of archaeological material.” (Perkins & Walker 1990, 4-5).
mention only the presence of preserved structures, or refer back to earlier mentioned types for their material / scatter definition. The most difficult to define sites belonged to three sub-groups (e.g. ‘House / Tomb’, ‘House / Farmstead’ and ‘House / Necropolis’). The farmstead - villa definition seems pretty strictly based on its scatter-size and presence of luxurious architectonical elements.

Further fabric analysis added to the identification of the material. Each selected sherd was freshly broken, examined under 10x magnification and assigned to a fabric group. The nature of the groups seemed to vary considera-

Project #4: Arthur (Discussed by Van Leusen 2002):

In his PhD-Thesis Van Leusen concluded that most site classification systems can be placed in two distinct groups: based either on historical or empirical approaches. Most unfortunately such classifications are not always properly formulated, let alone published in detail. This makes it difficult to understand the reasoning behind the methodologies. He therefore published two examples of (then) recent well-defined site-classification systems: one historical in nature, the other strictly empirical, to signify how these choices influence the eventual typology.

The first (empirically based) methodology was already discussed in the last paragraph: the classification used by Perkins in his ‘Albegna Valley Survey’ (Project #3.2), the second will be introduced here.

In 1991 Arthur\textsuperscript{34} published the outcome of his Northern Campania Survey project (1978-1982)\textsuperscript{35}. This ambitious project was aimed at reconstructing the settlement history for the entire north-western portion of the region, from the Neolithic till Early Medieval period, by (as Arthur himself stated) extrapolating “changing patterns of land exploitation through the course of time” (Arthur 1991, 13; Peña 1993, 183). Of special interest to Arthur were the processes of acculturation and assimilation in the Roman period, related to the evidence of Romanisation and conquest in the region (Lomas 1993, 226).

On a methodological level the project incorporates the survey results with additional in-formation from unpublished excavations, literary sources and epigraphical material. The survey itself consisted of a systematic surface in-vestigation of approximately 100 km\textsuperscript{2} within the Monte Massico region (which identified 300 sites, 181 of which had Roman material). Unlike most of the other large scale labour-intensive survey projects brought forth in this analysis, Arthur’s Northern Campania Survey consisted of a low-budget field-walking campaign almost entirely undertaken by the author himself (Peña 1993, 183-184). The historically laden, emic, classes Arthur implemented were labelled according to the descriptions provided by historical sources (e.g. Forum, Vicus, Pagus). Theses historical categories were directly related to the material scatters encountered in the field: based primarily on the overall criteria of size, shape and density (as well as specific finds or find types).

When comparing both typologies (see table 7; p.39), substantial differences can be noted. Arthur for in-

---

\textsuperscript{34} Data of which was originally published in his thesis at the University of London in 1985 (Peña 1993, 183).

\textsuperscript{35} The investigated area includes the land between the Garigliano and Savone river (Peña 1993, 183).
of a more complex site typology based on a series of very specialised classical terminology. Although these historical classes provide much needed information on landscape placement and functional interpretation of the sites, their constraining criteria is unable to classify the more difficult (non-diagnostic, pre- or post Roman) scatters found within modern survey projects (Leusen 2002, 13-8 till 13-9). These “difficult” site-groups would be placed by Arthur in his undifferentiated class of pottery scatter, making further analysis impossible. Other difficulties can be found with the definitions of associated material assemblages and scatter-sizes per class. Although most of the classes come with a specific material assemblage indication, the system only uses general descriptive terms. In addition, none of the scatter-sizes are given, probably due to the historical nature of the typology. Overall, the site-classification system used by Arthur is not nearly as specific as some of its counterparts discussed in this thesis (probably due to its predominant historical based background). This makes the earlier mentioned classification of Perkins (based on a relatively simple size criteria) much more practical, as a sub-division was possible.

Project #5: Dyson (1978):


The next site-classification system is connected to the field survey of rural sites located around the Roman colony of Cosa36 (founded 273 B.C.), conducted from 1974-1976 by the Wesleyan archaeological research group. A large scale systematic survey of the surrounding area identified hundred and thirty-two sites, leading to a reconstruction of the rural settlement history of Cosa (Dyson 1978, 251)37. During the second season (1975) of the fieldwork, the intensive surface survey was complemented by a geological investigation and the first of the excavation campaigns (Dyson 1978, 254).

The Roman sites uncovered within the surveys were divided into four distinct categories: (1) major villa, (2) well-to-do villa, (3) small villa and (4) small villa/house (all emic in nature). Size (though only relatively defined) and visibility of remains (impressiveness of architecture) of the sites seem to be the main characteristics used in the site-classification system (see table 8; p.39). Material evidence per type are especially well defined, going into specific differences between the classes (probably due to the excavation projects in the area). The used categories however are somewhat arbitrary in nature, heavily relying on the state of preservation of the archaeological material. A small ‘type-4’ site can for instance be interpreted as a ‘type-3’ or ‘type-2’ site when deep ploughing brought some flooring tiles to the surface, misrepresenting what lies below ground (Dyson 1978, 257). The site-typology should thus be seen as a rough means of organizing survey data instead of definitive site-identification. Revisits during survey projects in combination with the use of more flexible classification systems can in such cases “update” the interpretation of the archaeological material encountered in the field, working towards a better understanding of past activities in the area.

36 Initially, the Wesleyan program started with the limited survey and excavation of a series of villae around Buccino (Salerno province) in Lucania, but due to the modest amount of data provided by that area, another area of investigation was sought: leading to Roman colony of Cosa.
37 “The area apparently had sparse habitation before the Roman period, a steady population during the Republic, and a decline under the Empire which left a sparse population by the 4th century A.D.” (Dyson 1978, 251).
The Suburbium project was set up in 1993 as part of a collaboration of the Archaeology / History department of ‘La Sapienza’ university in Rome and the Soprintendenza Speciale per i Beni Archeologici di Roma (SSBAR), and placed under the supervision of Andrea Carandini. It was aimed at the reconstruction of the ancient landscapes within the different suburbs of current-day Rome and its immediate surroundings (‘Municipalities II, IV, IX, X and XVIII’). The ambitious project included an immense area of approximately 200 km$^2$, almost 17% of the total surface of current-day commune of Rome (Carandini et al. 2007, 13; Jolivet et al. 2009, 27).

Of specific interest to the researchers was the reconstruction of the original ancient agrarian landscape (geography, topography, road networks and settlement pattern), which had undergone grave changes during the hundreds of years of occupation (Carandini et al. 2007, 13). To accomplish this goal a project was created in which both old and new work would be integrated on a large scale. The comparative nature also resulted in a great opportunity to reflect on the methodologies within documentation, collection and interpretation (of territorial surveys). Three aspects were chosen as main points within the research: (A) classification and interpretation of the data, (B) material concentrations in absolute amounts and dispersion of ceramic material (weighed average), and (C) archaeological visibility and the distribution of ancient structures (Jolivet et al. 2009, 34).

Within archaeological excavations a stratigraphic unit (SU) is used to identify and document human action within a site or building. A similar strategy is implemented with regional projects like the Suburbium Project. Here topographical units (TU) are used to interpret human interactions within the area, combining information from a geomorphologic level with the encountered archaeological contexts (Carandini et al. 2007, 13). The interpretation of the features within these units is based on specific criteria, which differ for each site-class. Intact buildings or preserved structures (e.g. roads or aqueducts) are, for instance, easily recognizable based on preserved wall features and archaeological material, and do not pose a particular problem. Less preserved or smaller isolated structures are harder to interpret, in which case surrounding context becomes decisive (e.g. isolated structures in rural contexts would be interpreted as farmsteads or villae; Carandini et al. 2007, 20).

Based on these interpretations, three distinct aspects of investigation / identification were incorporated within the site-classification systems: (1) the presence / absence of constructive materials or decorative elements (indicating functionality and social status), (2) the differences in the extension of the artefact concentrations (scatter-size), and (3) the differences in the location and ceramic composition of the archaeological contexts (Carandini et al. 2007, 20; see table 9; p.40). Preferably all three criteria are combined within the interpretation of the topographical units.

When looking at the range of site-classes we can see they are very unitary in nature, though the main groups are sub-divided into size-classes (small, medium, grand; also apparent from the continuity in scatter-sizes). In addi-
In her PhD-Thesis Fulminante analysed and compared the site classification system of the earlier mentioned Perkins (1999a) ‘Albegna Valley Survey’, the system adopted by Carandi et al. (2002) in their Albegna Valley Survey, and the settlement classification system of Carafa (2000) within the ‘Suburbium Project’. By looking at differences and similarities between the individual systems, Fulminante could identify the different aspects that could identify individual site types. She then devised her own site-classification system based on the work of the others.

The system applied by Carandini et al. (2002) consists of a series of sub-groups, based mainly on differences in absolute scatter-size (e.g. ‘House 1’, ‘House 2’; table 10; p.41). The sizes are continuous, following the hierarchical setup of the classification. Unfortunately, most of the site-types discussed in the other site-classification systems incorporated in this thesis are missing. Most of the attention is directed towards specific preserved standing structures (i.e. ‘Houses’, ‘Villae’ and ‘Villages’), whilst other (essential) classes are missing.

This lack of information can also be found in the find material-definition of the site classes. Here, some site-types are solely defined in generalised material classes (e.g. functional wares or storage ware), whilst others completely lack a strict definition. From this, it seems that the researchers mainly relied upon their own knowledge of site-assemblages in field to identify the scatters, mentioning only the explicit differences between the classes within the typology.

In some cases these additional notes provided with the system that provide the most reliable information. They mention the presence or lack of certain functionally interpreted materials, and address notable interconnections between the sub-classes.

A final thing worth mentioning is the lack of a farm-class\(^{38}\), or any building with storage ware for that matter (an interpretative class essential to all other site-typologies mentioned in this thesis).

In contrast to the system of Carandi, the classification brought forth by Carafa applies unitary site-classes (with exception of the ‘House-Farmstead’ sub-class; table 11; p.42). The site-descriptions themselves are however far from specified (as mentioned by Fulminante): although all classes come with a detailed scatter-size, further material evidence or notes are not provided. It is therefore difficult to determine how useful a system like this would be in the field.

When comparing the classification systems from the different sub-projects, certain variations are apparent. Even though scatter-size seems to be the primary indicator to differentiate between classes (tombs from houses, or big farmsteads from small villages), the size-classes themselves greatly differ from one system to another. Some classes, like villae, have additional class-indicators (and seem to be the most uniformly defined class-type). Besides scatter-size, the presence of luxurious architectural decorations (e.g. marbles, mosaics and paintings) and/or productive structures demarcate this type from the others (Fulminante 2008, 220).

Although Fulminante used information from all three of the mentioned classification systems for her own

---

\(^{38}\) From my understanding of this classification system, Roman farmstead sites are probably placed under the ‘House 2’-label within the proposed typology. In my opinion however, such sites could just as easily be interpreted as small villae.
typology (see table 12; p.42), it is clear that she preferred the work of Perkins (1999a). He had for instance introduced sub-groups for certain difficult to define sites (e.g. ‘Tomb / House’). When a small site was encountered within the field, lacking any definite funerary or household evidence, he thought it wiser to place these under a more explicit uncertain definition of ‘Tomb / House’, rather than interpreting them solely based on scatter-size (a house thought to be larger than a tomb). Fulminante adopted this aspect and introduced her own non-specific generic sub-classes: ‘House / Tomb’, ‘House / Necropolis’ and ‘House / Farmstead’. In some specific instances she implemented further sub-groups like village or villa (e.g. in the Republican period in which a shift of village related functions (like production) to villa sites (with clearly luxurious indicators) in clearly visible within the material; Fulminante 2008, 223).

An additional aspect borrowed from Perkins’ classification is the size-scatter distinctions between villages (1 > 4 ha), minor centres (> 4 ha) and cities (> 30 ha), which correlates with hierarchical subdivisions, to be used in comparisons of data on a regional level. The rest of her scatter-definitions are also mentioned in absolute size-ranges.

Unlike the other site-classification systems, Fulminante provides very specific material assemblage, at least for half of the classes. This is complemented with additional type-specific information mentioned in the added notes: specified class-criteria, interrelations between groups and the mentioning of the presence of preserved structures.

Overall it can be concluded from Fulminante’s comparison (also stated by Carafa in a preliminary publication on the overall Suburbium project) that the classification of the sites used in the different survey projects is not as clear-cut as one would assume. Especially the characteristics that define Republican farms / villae, as well as their proposed continuity through time, is not always clearly represented in the archaeological data. Earlier occupation of sites that develop into large scale Republican villae are for instance almost always interpreted as a smaller villa-like predecessor of the structure, without any strict evidence for a continuity of functional use from the initial phase. Fulminate therefore stresses the importance of the use of ambiguous sub-classes like ‘village / villa’ or ‘farm / villa’ in certain cases (Fulminante 2008, 223).

Project #7: Giuseppe et al. (2002):


The ‘Sabinensis Ager Survey’ is the seventh project included in this analysis, and can be seen as a sub-project of the broader ‘Tiber Valley Project’, directed by H. Patterson of the British School at Rome (Patterson and Millett, 1998; Patterson et al, 2000; Giuseppe et al. 2002, 99))39. Launched in 1997, the overarching umbrella project was meant as a five year research project to study the changing settlement and societal pattern in the valley (1000 B.C. – A.D. 1300). By synthesizing and analysing both existing and new survey data the study examines the similarities and differences between the two opposing banks of the Tiber: ‘Southern Etruria’ (west) and ‘Sabina Tiberina’ (east; Giuseppe et al. 2002, 99).

Quick analysis of the already published data had already demonstrated an unevenness in archaeological understanding of the two banks. Not surprisingly, due to the bias (50 years of investigation as part of the South Etruria Survey) the development on the western bank was more clearly understood.

The sub-project discussed here was aimed at investigating the settlement development patterns in the area between the river Córese40 and the Tiber. This exact spot is the location of the ‘Cures Sabini’ site, the principal settlement of the ‘Sabina Tiberina’. The targeted field sur-

39 The project is supported by the ‘British School at Rome’ (BSR) and provided with financial assistance by the ‘British Academy’ (Giuseppe et al. 2002, 99).

40 The area of investigation comprises of four ridges, which appear to have formed the base of communication from the pre-Roman period onwards (Giuseppe et al. 2002, 103).
veys were undertaken in October of 2000, and were combined with Roman pottery analysis and GIS-work.

As the project was tried to address questions of historical interpretation in the area, the objectives are defined as follows: (1) to access the validity of the presently presumed range and density of the settlement; (2) to assess and refine chronology; (3) to investigate the relationship between settlement and land division.\(^{41}\)

A flexible survey approach was implemented, which further evolved and changed during the course of the project. Researchers had originally intended to cover an area of approximately 10 km\(^2\) (in a 5 x 2 km transect). During the course of the project it became clear that such a large area was too ambitious for a project with as limited resources as this one. Both the unexpected density of sites in the area, as well as the methodological shift towards more intensive survey methodologies called for a change in set-up. It was decided to use teams of three to five walkers, placed at 10 m intervals, collecting from 2 m wide corridors (thus providing 20% sample coverage, a basic methodology practiced by many recent survey-projects in Italy).\(^{42}\)

This change in methodology led to an increase in resolution in the survey area. The units (or transects) were originally defined at a 40 x 100 m range; dating and classifying the material in 4,000 m\(^2\) blocks. Due to risk of generalizing localized variation within the densely settled area, the units were shrunken down to 10 x 50 m, or 500 m\(^2\) blocks (even 10 x 25 m, 250 m\(^2\) blocks in areas were sites were expected, enhancing spatial control). As the survey was particularly site-orientated, changes in sampling strategy were also implemented: originally researchers planned to record sites by pacing and fanning out the walkers when a site density was encountered (or expected), looking for site limits. Both a diagnostic, as well as a representative sample of other material would then be collected. This turned out to be an unsatisfactory method for three main reasons:

1. Sites seemed often to extend beyond the predefined transect lines, towards neighbouring units, thus compromising the collection of material in still unwalked areas.
2. As no clear sampling strategy was defined for ‘sites’, there was no means of quantitatively relating these areas to ‘background scatters’.
3. Unsatisfactory collection obscured the attempts to define a site’s original extent (making size-scatter analysis virtually impossible).

The survey strategy therefore eventually evolved into one in which the area was investigated field-by-field in a continuous matter. In areas where increased density was encountered (places which could later be identified as sites) canes were used to demarcate site-extent, after which normal line-collection strategy continued. This left an 80% material scatter undisturbed, which at a later date could be checked and sampled for diagnostic pieces (with a spatial interest towards types not yet collected during the 20% coverage investigation). It eventually turned out that ‘sites’ clearly stood out from background material, making this specific methodology more than sufficient.

The aims of the project are clearly represented in the unitary nature of the applied site-classification (see table 13; p.43). Although a range of site-types is given, the system is primarily dependent on two classes: farm and villa, used in the reconstruction of settlement pattern and land division. Both scatter-size and material assemblages are solely mentioned for both classes. Though no overlap is present within the scatter-sizes, the aspect can neither be interpreted as continuous or connected size-ranges (based on just two examples and the large gap between the two sizes). Material evidence is more specific, presence of luxurious artefacts and materials within one, simpler and storage wares within the other. Within the additional notes relative artefact densities are even defined, together with class-interrelation definitions defining the other site-classes.

\(^{41}\) With special interest in the ‘Middle Republican’ period, which followed the occupation of Sabina by the Romans in 290 B.C. (Giuseppe et al. 2002, 103). Artefact densities were central to the investigation, as they were used to identify (or represent) settlement foci.

\(^{42}\) E.g. the ‘Farfa Survey’: Leggio and Moreland, 1986; Giuseppe et al. 2002, 104
The eighth classification system introduced is that of the ‘Nepi Survey Project’ (di Gennaro et al. 2002; Rajala 2006; di Gennaro et al. 2008), a surface collection campaign within the territory of the ancient site of Nepet (located approximately 45 km to the North-west of current day Rome). Conducted in 1999-2000 and placed under the umbrella of the Tiber Valley Project (just like the above mentioned project of Di Guiseppe et al. 2002; Project #7), the settlement pattern is analysed within the extremely diverse geographical area. The publication from which the site-classification system stems had an additional point of interest: a sub-project called “The Romanisation of a Faliscan town”, which utilises Roman pottery and ceramic building material collected during the earlier mentioned survey to study the character and continuity of the Roman rural and suburban settlement within the area (a process defined as ‘ceramiscene’; Mills & Rajala 2011, 1-2).

The basic site-typology implemented within the ‘Nepi Survey Project’ was adopted from the earlier ‘South Etruria Survey’. Some aspects were however changed (see table 14; p.43): the poorest site class, huts, which consists of a scatter of pottery sherds and tile, was renamed minor sites. Higher up in the hierarchy were villae and farms, differentiated from each other by the more elaborate structural elements and higher quality of finds (e.g. wall plaster, mosaic, marble and glass; Kahane et al. 1968: 154) belonging of course to the luxurious villa-type. Further distinction was made on scatter-size within relative site classes (small / medium / large), in an attempt to neutralising the classification systems by adding in quantifiable elements (implemented on a large scale by British survey projects; Mills & Rajala 2011, 5-6). Unfortunately these size differences are not mentioned within the publication and seem to be applied at random by the researchers in the field. This makes the interpretation rather subjective in nature, rather than the objective quantification that was intended. Furthermore, the pre-Roman part of the project relied heavily on the study of changing densities between units to explore human activity, e.g. what Thomas (1975) introduced as a siteless survey (Mills & Rajala 2011, 5-6).

For further analysis of the survey-data the authors introduced the concept of ceramiscene: “the landscape that is created, manipulated and experienced by the manufacturing, usage and disposal of material” (Mills & Rajala 2011, 2).\(^45\) As most artefact assemblage collected during field surveys in the Mediterranean are dominated by loads of ceramic materials (especially in Roman times, a period that seems to be specifically ceramic based), ceramiscene seems to be a useful way of interpreting social constructs and landscape developments through material distributions of consumption and discard.

---

\(^43\) “In Mediterranean surveys a site is often defined as a concentration of finds that has a higher density than the relative minimum required.” (Mills & Rajala 2011, 5).

\(^44\) Though this class is not mentioned by in the system published by Mills & Rajala in 2011, it falls within the “Villa”-class. Real villae belong to the “Villa (large)”-class.

\(^45\) A concept based on Ingold’s (1993) “taskscape”, defined as “a socially constructed space of human activity in the form of the areas of everyday actions.” (Mills & Rajala 2011, 2).
Project #9: Vermeulen (2012):


In his paper Vermeulen presents the results of the ‘Potenza Valley Survey’ (PVS; University of Ghent) located in northern Picenum and conducted between the years 2000-2005. The project was aimed at reconstructing both the urban and rural settlement patterns in the Potenza river valley (from prehistory to the medieval period), with a special focus on the early urbanization, Romanisation and countryside development from 1300 B.C. – A.D. 500 (Vermeulen 2012, 43). The Roman citizen colony of Potentia (founded in 184 B.C.) was chosen as a focus point since it appears to have played a fundamental role in the urbanization of the region, as well as give insight in the relationship between a Roman colony and its immediate hinterland. Additionally the project wants to add in the development of interdisciplinary geo-archaeological survey methods and the integration of historical archaeological GIS-applications (Vermeulen 2012, 43).

Three main sample zones were chosen in the area, covering all main landscape types and placed at regular intervals:

1. **The upper valley**, consisting of hilly landscape (17 km² extensive survey; 3.2 km² intensive survey).
2. **The middle valley**, consisting of dorsal ridges and secondary valleys (18.8 km² extensive survey; 3.7 km² intensive survey).
3. **The lower valley**, consisting of the coast and Potenza floodplain (32.7 km² extensive survey; 3.9 km² intensive survey).

During the field surveys a standard line-walking approach was implemented, with walkers placed at 5 m intervals. A 20%-coverage collection strategy was on recorded sites combined with additional grab-samples. In the field modern agricultural plots and distinct topographical divisions were used to define the survey-units (in which ploughed fields with optimal visibility were preferred within the selection).

Analysis of off-site artefact spreads and revisits of already recorded sites (to a minimum of 15%) to refine site interpretations were also centred to the project. They however concluded that surface evidence alone was not always sufficient to interpret sites (Vermeulen 2012, 45-46).

A set of biases impeded the full reconstruction of settlement pattern and development, namely:

(A) Processes of erosion and colluvial deposition, which significantly altered the landscape and covered up certain sites.

(B) The changing course of the Potenza river (during the medieval period).

(C) Modern urbanization and agricultural practices.

(D) The dating problem.

To remedy these problems the team collaborated with geomorphologists (to assess erosion processes and riverside sedimentation), as well as studied certain stratigraphic contexts in the area from recent excavations (to set up new ceramic sequences). Varying grid-size and artefact collection experiments were undertaken to refine field methodology. Remote-sensing was used to supplement the survey data (aerial photography, geomagnetic- and geophysical investigation).

With use of earlier published legacy data, historical sources and newly collected survey data (which led to a combination of both emic / etic and unitary / sub-groups within the classification), the Potenza-team elaborated and refined the site-classification system already implemented in the area (see table 15; p.44). This yielded an eventual typology of non-urban sites in the area, ranging from big to small (with continuous and in absolute ranges defined size-

---

46 Most chronologies used in the identification of sites rely heavily on the presence of fine wares and other diagnostic pottery. The presence of this material was however lacking during certain periods in this area. The researchers were therefore reliant on building material to identify different chronological periods (Vermeulen 2012, 45-46).
classes, but with relative sub-grouping in the site-classes themselves). They were identified by material collected during surveying, observations in the field and follow-up research like augering. Classes are defined by criteria, like: scatter-size, quantity / quality of finds, topographical location, presence of structures, chronology, etc. The material assemblages are especially well defined, as they combine a general scatter assemblage (present within all classes), with specified artefact groups per individual site-class. This makes them quite easily distinguishable from each other.

Some remarks are however implicit to these characteristics. First of all, scatter-size should be applied with caution, as the nature of waste disposal and post-depositional processes can influence the material dispersion quite heavily (techniques like augering and remote sensing can partially correct for these effects). Secondly, material evidence should be used to reconstruct chronology, but also be related to functional assemblages, as they represent the activities conducted at the site. Thirdly, the placement of the sites, which is not easily related from surface scatters. Aerial photography and geomorphological observations can add in this process, providing information on general land divisions and land-use.

Project #10: The Pontine Region Project:
The following paragraph will introduce three research projects related to the overall ‘Pontine Region Project’ (PRP), conducted by the University of Groningen since the mid eighties. The first system will be of the work by Tymon de Haas, introducing the PRP as a whole and commenting on the site-classification system he implemented within his PhD-Thesis (which made use of the PRP-dataset). The second part will concern the Fogliano Survey, conducted by Attema, de Haas and La Rosa in the late nineties, as a sub-project of both the PRP and ‘Regional Pathways to Complexity Project’ (RPC-project). Lastly, the methodologically driven ‘Monti Lepini Surveys’ of Martijn van Leusen will be discussed, which was part of both the PRP and ‘Hidden Landscapes Project’.

Project #10.1: Haas (2011):


After two initial projects in the ‘Pontine Region’47 (the ‘Satricum excavation’ in the1970’s and the ‘Agro Pontino Survey’ which started in 1979) the University of Groningen started a new regional project in the area: the ‘Pontine Region Project’ (PRP; 1987). In the twenty-five years which have passed since the beginning of the project the projects’ geographical and chronological focus has shifted several times, ranging from the initial colonization of the area till eventual Roman Imperial occupation. Field methodologies have also changed accordingly, in parallel with the methodological discussions within survey archaeology itself.

Within the initial phase of the project (1980-1990’s) the researchers conducted both intensive on-site surveys as well as extensive field surveys on the edges of the Lepine mountains and adjacent Pontine plain. These campaigns were used to shed light on the process of centralization in the pre-Roman period and colonization / urbanisation in the Republican period (located towards the north of the Via Appia).

Then, during the mid-1990’s the project entered its second phase: the geographic scope of the project was widened by including parts of the Alban hills and Sacco valley. By use of intensive field surveys the impact of Roman colonization in the hinterland was investigated, together with the investigation of areas surrounding the centres of Norba and Setia.

During the third phase, in the late 1990’s, the pro-
ject shifted its focus again. The northern part of the coastal area was now included with surveys surrounding lake Fogliano. The intensive surveys in this area required changes in the survey method and site-classification (this methodology is included in this analysis as Project #10.2 and will be discussed accordingly). In a way this new methodology paved the way for the (more) recent survey projects in the area, which included intensive field surveys surrounding Nettuno and Astura (2003-2005) and geo-archaeological studies (The Hidden Landscape Project; De Haas 2011, 10).

The doctoral thesis from which the below discussed site-classification system stems can be seen as part of the ‘Pontine Region Project’. In his book the author, Tyron de Haas, uses the data collected to evaluate the analytical potential of intensive field survey data. By questioning the methodological background behind survey practices as well as the quantification of both off-site distribution and sites (e.g. site-classification), de Haas works towards a newer, “better” survey methodology: e.g. “Does intensive on-site sampling improve the functional interpretation of sites and our understanding of site chronology?” (De Haas 2011, 14).

The site classification system discussed in this source is based on an empirical approach to site-typology (see table 16; p.45): the individual classes are not based on preconceived modern categories or historical known types (e.g. farm / villa), but relies on aspects directly related to the archaeological material collect from the field (De Haas 2011, 28). In essence the classes are used to identify functional groups within the material dispersions. To structure and compare the survey data, two site-criteria (size and architectural features) are ranked on a qualitative scale:

(A) Four size-groups based on estimated scatter-sizes:
very small (< 0.051 ha), small (0.051 - 0.2 ha), me-
edium (0.21 – 0.5 ha) and large (> 0.5 ha) sites.\(^{50}\)

(B) A characterization of monumentality based on the presence of architectural re-mains: sites with low (no or few architecture), medium (tile and stone debris), high (idem and/or masonry walls, cisterns etc.) and very high (idem and / or high-value luxury features such as marble, mosaic remains, wall paintings) monumentality. (Haas 2011, 28-29).

After the primary ranking of sites on the above mentioned site-size / monumentality scale, the nature of the artefact assemblages is taken into account. Based on functional identification of the object, the economic status / hierarchical ranking of the site is reconstructed:

1. Is there any evidence of on-site manufacturing (e.g. wasters, kiln debris)?
2. Can the assemblages be characterized as either standard (having no conspicuous anomalies) or non-standard (having conspicuous aspects)?
3. What is the amount of imported wares? This partially reflects the site’s participation in trade networks and its socio-economic status.\(^{52}\)

A combination of the above mentioned aspects combined make up the eventual site-classification system used in the project. The fact that none of the classes have very strict material assemblages, reflects the overall empirical nature of the classification. Within the site-catalogue however, further identification of the material evidence beyond the general functional groups used in the site-classification system (e.g. amphorae instead of transport wares) is given per identified site:

\(^{48}\) Regular units of 50 x 50 m were used, systematically transversed by walkers spaced at 10 m intervals (20% coverage). Per unit surface visibility was recorded on a 5-step scale (very low to very high). In follow up campaigns “sites” were resurveyed with total coverage (De Haas 2012).

\(^{49}\) No fixed quantitative criteria are used in defining sites, but focus on areas that were defined in the field (relatively high artefact densities; De Haas 2011, 28).

\(^{50}\) Scatter-sizes are not identified per site-class, but are general site indicators for all classes (in-line with the setup of the typology).


\(^{52}\) Sites are characterized as “Low” (few to no imports), “Medium” (some imported amphorae or fine wares) or “High” (both fine wares and imported amphorae; De Haas 2011, 27).
Architecture, including tiles, covering tiles, bricks and architectonic terracotta’s.

Cooking wares, including most impasto and coarse wares; Storage, including dolium.

Table wares, including black gloss, terra sigillata, African red slip wares, and miscellaneous fine / depurated wares.

Transport amphorae.

Miscellaneous, including loom weights, terracotta fragments, oil lamps, glass and metal objects (Haas 2011, 333).

How detailed the system might seem, no classification is without unresolved issues: First of all, the classification system is based on the preconception that the material is left by certain reconstructable activities, though the burial process itself remains uncertain and hypothetical. Secondly, the system completely ignores the issue of chronology as not all object classes have intrinsic chronological value. This however makes it very difficult to reconstruct changes over time, which might as well have influenced site function and status. Post-depositional processes can even further influence this, certainly on multi-period sites where the plough has selectively brought certain material classes towards the surface and others unfortunately not (De Haas 2011, 28-29).

Project #10.2: Attema, De Haas, La Rosa (2003):


The next survey to be discussed is the Fogliano survey (1998-1999), carried out within the context of the Regional Pathways to Complexity-project53, and part of the larger Pontine Region Project (PRP; Attema, 1993). Aimed at giving insight into the nature and intensity of occupation in the marginal coastal zone of the Pontine Region, the collected data was compared to the development of similar areas in both the Pontine Region and central / southern Italian landscapes (Attema & Van Leusen, 2004; Attema, 2005). As site-definition and survey methodology are central to intercomparison between survey projects, the methodological framework was a focal point within the project (Attema et al. 2003, 121).

The Fogliano survey implemented a new survey methodology: block surveys. Within this method the chosen survey fields are divided into uniform units (e.g. 100 x 100 m). Walkers are placed 10 m apart, walking the predefined lines, collecting from a 2 m strip of land (providing a 20% coverage). Additional diagnostic or grab-samples are collected from ‘sites’ or other areas of interest. By use of this systematic collection strategy, the project provides not only information on well defined sites, but also the smaller off-site contexts.

In order to study the settlement history of the area, the project devised a site-classification system that combined the data from both the survey project as well as the ceramic analysis. Most survey criteria implemented are of a strict quantitative (site size) or qualitative nature, but no one has devised a standardized system. The Fogliano survey implemented a similar classification-system, but was of a more flexible diachronic nature (applying criteria and classifying sites per period, with both emic and etic site-classes; see table 17; p.46). By use of fabric-groups and wares, the sherds were assigned to different periods, making it possible to trace changes in settlement hierarchy over time (Attema et al. 2003, 124). Next to chronology, the most important criteria used are ceramic assemblage (each class with its own specified assemblage), building material / architecture, other finds, and in some cases size (absolute, but with definite overlap: i.e. ‘Small site #2 – Farmstead’) and location (Attema et al. 2003, 127-128). Sites were however based on relatively high artefact densities encountered in the field, without the use of a priori quantitative criteria to delimit these.

53 “A multidisciplinary research project studying the settlement history of three Italian regions (Burgers, 2002)” (Attema et al. 2003, 121).
Project #10.3: Van Leusen (2009):


The third site-classification system related to the Pontine Region Project is the one implemented to describe the sites uncovered during the revisits of the Monti Lepini area (southern Lazio, Italy) within the framework of the Hidden Landscapes Project (2005-2010). Conducted in the years 2005-2009, teams composed of staff and students from the Groninger Institute of Archaeology (GIA) walked the difficult to reach and access hilltop perches, even only sparsely settled in modern times (Leusen et al. 2009, 330).

The research area was included as part of the long-running Pontine Region Project (PRP) by addressing a combination of research problems connected to accessibility and visibility on difficult to reach archaeological areas (landscapes) as well as comparing data collected from these areas with more “perfect” archaeological sites (great visibility and accessibility). Through the implementation of different methodological experiments, systematic methodological built-in biases are tackled (Leusen et al. 2009, 329). In addition, the campaigns were set on acquiring systematic and representative samples from the Monti Lepini in order to reconstruct this part of the settlement pattern (Leusen et al. 2009, 333).

Two problems were however implicit to the area, which had to be overcome for the data-set to be useable in further analysis: (1) a systematic way had to be devised to describe and asses the 735 km² wide landscape in order to select representative areas for the intensive field survey, and (2) teams had to experiment with new ways of traversing the difficult to reach terrains and record the data in a useful manner.

The first problem was tackled by using the expertise of geo-archaeologists to establish basic parameters for landscape description. A classification map was produced from which three zones were selected, combining the full range of different exploitable landscape types (see Leusen et al. 2009, 333 – fig. 3). The second was partially solved by the implementation of a new site-classification system.

This system implemented by Van Leusen combines both emic and etic classes (see table 18; pp.47-48). Nine main functional classes were defined in which the site-types were placed: habitation, defensive, burial ground, water supply, agricultural structure, infrastructure, pastoral structure, production and cave / shelter. Scatter-sizes were not defined, not even in relative terms, and material assemblages were only mentioned in specific cases (mainly in general terminology). Most of the information is included within the additional notes of each site-class, mentioning if they are based on either archaeological or historical evidence, the interclass similarities / differences and additional comments.

This is in sharp contrast with the classification systems used in earlier works (older survey projects), which describe sites by the presence of obtrusive structures or in “romantic” terminology (i.e. site-types based solely on personal preferences, not on observable aspects.). “Our site-typology is based on in the field identified observations, from collected archaeological materials” – Martijn van Leusen, personal notes and communication).

Project#11: Ghisleni et al. (2011):


When comparing rural archaeological research between northern and southern Europe, a distinct difference is apparent: whilst most smaller sites uncovered during survey projects in the northern countries have also been subject to detailed excavation, the number of such projects within the Mediterranean (especially Italy) remains relatively low. The final survey project included within the analysis, The Roman
Peasant Project (which started in 2009)\textsuperscript{54}, wanted to address this problem. By use of a combination of surface survey results and detailed excavations of the smallest Roman sites / off-site scatters located by these surveys, a reconstruction can be made of the Roman non-élites in the commune of Cinigiano (western Tuscany). Located in the meeting point between coastal plains and a more mountainous inland area, this region was ideal for the study of Roman peasant-sites as these rural buildings seem to dominate the area (ranging from small farms to nucleated villages; with only one example of a villa-estate).

In addition site preservation in this area is relatively good, with a clear distinction between ‘poor’ material assemblages and signs of luxury / wealth (making hierarchical divisions and relationships easily definable). A systematic analysis of the architectural, ceramic, faunal, palaeobotanical and geo-archaeological remains will provide information on the way Roman peasants went about their daily life (including housing, diet, economies and locales). The chronological timeframe of the project ranged from 200 B.C. – A.D. 600 (Ghisleni et al. 2011, 96).

In essence the project tries to move beyond the investigation of isolated case-studies and research projects by systematically collecting and combining information from multiple sources. This process includes data from single-site excavations as well as regional approaches in surface surveys, thusly bridging the gap between the two archaeological disciplines (Ghisleni et al. 2011, 98). During the fieldwork of the project certain small sites identified during field surveys were excavated (at speed). The article discussed here, which provided the site-classification system, deals with one of the excavations: that of the Republican and late Roman farmstead at Pieve.

The site-classification systems used to identify the individual sites within the Roman Peasant Project were based on two distinct aspects (see table 19; p.48): (A) Absolute size categories and (B) Functional categories. Sites located during the surface surveys were initially ranked based on scatter-size (ranging from > 0.05 till > 2 ha; which in practice is a very high range), to distinguish smaller rural sites from larger villages or other conglomerates. The remaining sites would then be sub-divided based on a more functional analysis of the collected material assemblages, mainly within general material classes (based on the actual site categories found during the survey process).

For the eventual analysis and excavation the project focuses mainly on the three smallest size-categories: >0,05; 0,05–0,15 and 0,15–0,5 ha (and all functional assemblages included within these groups; For further information on the site classification see Ghisleni, 2010 or the Microsoft Excel Database included in this thesis\textsuperscript{55}).

Overall the surface surveys at Pieve revealed discrete material scatters belonging to the late Republican period in combination with more concentrated scatters of a later period. They were interpreted as a village with kiln and a late antique house / farm. The excavation however revealed that these designations were (at best) oversimplifications of reality. This underlines the importance of excavation of the by survey identified sites to refine the site-classification system (Ghisleni et al. 2011, 133). In the end the authors suggest the implementation of a much wider range of functional categories, based on aspects recovered in both survey and excavation projects. Only in such a way we can get past the broad generalizations used in the field today. “If nothing else, they show the need for dozens of such excavations and locale studies, in all parts of the Mediterranean, if Roman rural history is to turn the next page.” (Ghisleni et al. 2011, 139-140).

\textsuperscript{54} A collaboration between Cornell University, the University of Pennsylvania and the Laboratorio di Archeologia dei Paesaggi e Telerilevamento (LAP & T) at the Università di Siena / Grosseto.

\textsuperscript{55} Made available (digitally) on request by the author (jihilbrants@gmail.com).
"Chapter 2: Survey"

Part B-III:

-Site-classification Tables-
## Project: Villa definitions from select Italian Surveys

### Table #2

<table>
<thead>
<tr>
<th>Site Interpretation</th>
<th>Area</th>
<th>Material evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Villa (South Etruria)</td>
<td>ca. 3,500 m²</td>
<td>Tile, pottery, building rubble, hypocausts, cisterns, bathhouses, columns, glass, etc.</td>
<td>Large tile / pottery scatter.</td>
</tr>
<tr>
<td>Villa (Biferno valley)</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>None explicitly stated.</td>
</tr>
<tr>
<td>Villa (Liri valley)</td>
<td>&gt; 2,200 m²</td>
<td>Building material</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Villa (San Giovanni)</td>
<td>2,000 &gt; &lt; 5,000 m²</td>
<td>(S) / &gt; 5,000 m² (L)</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Villa (Northern Campania)</td>
<td>[XXX]</td>
<td>Building material (stone, tile), preserved structure.</td>
<td>Stone / tile built structure; evidence for areas of differentiated function and social status (baths, mosaics); agricultural activities.</td>
</tr>
<tr>
<td>Villa (Albegna valley)</td>
<td>&gt; 2,500 m²</td>
<td>Columns, mosaics</td>
<td>Site of notable extent, with traces of architectural complexity (cryptoporticus, columns, mosaics).</td>
</tr>
<tr>
<td>Villa (Rieti basin)</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Evidence for luxurious accommodation.</td>
</tr>
<tr>
<td>Villa (Potenza valley)</td>
<td>ca. 3,000 &gt; &lt; 6,000 m²</td>
<td>Building material (great diversity), crustae, tesserae, columns, tubuli, pottery (fine-ware, imported), preserved structure.</td>
<td>Large concentration(s); several functional units; great diversity of building material (rich); signs of luxury (crustae, tesserae, fragments of columns, tubuli); greater variety of pottery (more fine / imported products); if structures: one main building and outhouses / activity zones (dominant position).</td>
</tr>
</tbody>
</table>

## Project: Site typology Potter 1979: Ager Faliscus

### Table #3

<table>
<thead>
<tr>
<th>Site Interpretation</th>
<th>Area</th>
<th>Material evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extensive scatter (Villa)</td>
<td>ca. 3,500 m²</td>
<td>Building material (high amount of stone / tile) Luxury architecture (marble, mosaic / tesserae, painted wall plaster), cisterns.</td>
<td>Dense concentrations of debris, sometimes with individual buildings visible. Heaps of dressed building stone, tile, marble, mosaic / tesserae, painted wall plaster, cisterns.</td>
</tr>
<tr>
<td>Medium scatter (Farm)</td>
<td>1,000 &gt; &lt; 1,400 / 2,000 m²</td>
<td>Building material, tile, tesserae, decorative items, pottery (low amount).</td>
<td>Far less extensive area; architectural remains are normally confined to some masonry blocks, tile, few tesserae (basalt / limestone). The yields of pottery and other finds are also correspondingly thinner.</td>
</tr>
<tr>
<td>Small scatter (Hut)</td>
<td>ca. 200 m²</td>
<td>Tile, pottery.</td>
<td>Scatter few hundred m² in size, with pottery and tile. Temporary shacks, as used by shepherds, some were outbuildings of large estates, and some were badly degraded farm sites.</td>
</tr>
</tbody>
</table>
### Table #4

<table>
<thead>
<tr>
<th>Site Interpretation</th>
<th>Area</th>
<th>Material evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>House</td>
<td>25 &gt; &lt; 1,000 m²</td>
<td>Loomweight, slag, grinding stone, pithos, (roof)tile, ceramics, building material.</td>
<td>Consistent / continuous scatter of (roof)tile, pottery, building material. Scatter-size limited to differentiate between “house” / “village”. Artefact-classes evidence of food preparation / domestic crafts. Pithoi-tile combination required to differentiate between this class and “tombs”.</td>
</tr>
<tr>
<td>House / tomb</td>
<td>&lt; 200 m²</td>
<td>[XXX]</td>
<td>Thin surface-scatter without other evidence suggesting definite “house” / “tomb”. This category is used where there is uncertainty about the nature of the site, often caused by poor visibility or few finds.</td>
</tr>
<tr>
<td>House / necropolis</td>
<td>200 &gt; &lt; 1,000 m²</td>
<td>[XXX]</td>
<td>Thin scatter without evidence suggesting definite “house” / “necropolis”. Similar to “House / tomb”, but larger.</td>
</tr>
<tr>
<td>House 2 (Roman only)</td>
<td>1,500 &gt; &lt; 2,500 m²</td>
<td>Loomweight, slag, grinding stone, pithos, (roof / floor)tile, ceramics, building material, cocciopesto, concrete, opus spicatum.</td>
<td>Large quantities of building material, identified as a house, but with additional evidence for a substantial structure (concrete, cocciopesto, opus spicatum, floor-tiles). This category is only used for Roman period sites which at some time during their occupation, not necessarily the third century, fulfilled one of the criteria.</td>
</tr>
<tr>
<td>House 2 / Villa (Roman only)</td>
<td>&gt; 2,500 m²</td>
<td>Building material</td>
<td>With large concentrations of finds (especially building material), but no certain evidence for a villa (structures or architectural fragments). Should be interpreted as possible early period villa-type sites.</td>
</tr>
<tr>
<td>Villa</td>
<td>&gt; 2,500 m²</td>
<td>Cryptoporticus, Architectural fragments, column drums / bases / capitals, painted wall plaster, black gloss, amphorae, preserved structure.</td>
<td>This category is only used for some Roman standing structure (cryptoporticus). With large concentrations of finds, especially building materials. Partially based on bibliographic data. Black gloss / amphorae for dating.</td>
</tr>
<tr>
<td>Fortified hill top</td>
<td>&lt; 40,000 m²</td>
<td>Defensive wall</td>
<td>Defensive wall around hill top, with little / no ceramic finds (due to vegetation and lack of agricultural activity).</td>
</tr>
<tr>
<td>Village</td>
<td>1,000 &gt; &lt; 40,000 m²</td>
<td>Loomweight, slag, grinding stone, pithos, (roof)tile, ceramics, building material.</td>
<td>A series of clearly distinguishable scatters of material classifiable as a house, but larger area. The term village is used to signify a collection of houses. Scatter-size is used to differentiate “village” from “house” / “minor centre”. Size-variation is used to qualify large / discontinuous scatters as villages.</td>
</tr>
<tr>
<td>Minor centre</td>
<td>&gt; 40,000 m²</td>
<td>Defensive wall</td>
<td>A series of clearly distinguishable scatters of material classifiable as a house, but on a larger area. With walled defensive enclosure. Size distinguishes the type from Villages and Fortified hill top settlements.</td>
</tr>
<tr>
<td>City</td>
<td>&gt; 300,000 m²</td>
<td>[XXX]</td>
<td>A series of clearly distinguishable scatters of material classifiable as a house, but on a larger area.</td>
</tr>
<tr>
<td>Kiln</td>
<td>[XXX]</td>
<td>Ceramic wasters</td>
<td>May be used singly or in combination with any of the above classes.</td>
</tr>
<tr>
<td>Sporadic</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Very thin / small scatter of material / stray finds not definable as any of the above. This category is often employed to describe the find spot of small quantities of Etruscan material mixed with material from a later Roman site.</td>
</tr>
<tr>
<td>Temple</td>
<td>[XXX]</td>
<td>Architectural terracotta</td>
<td>Architectural terracotta of the temple-type. In practice limited to sites which have been excavated or stray finds.</td>
</tr>
<tr>
<td>Road</td>
<td>[XXX]</td>
<td>Stones</td>
<td>Alignment of stones / cutting in rock. Evidence best visible on aerial photography.</td>
</tr>
<tr>
<td>Isolated tomb (site)</td>
<td>&lt; 225 m²</td>
<td>Pottery, tile, funeral material (pottery), human bones.</td>
<td>Size of the scatter is limited to differentiate between tomb and house / tomb site, through presence of tiles. Sites are often characterised by a patch of sub soil on the surface / tomb. Most often found as a result of tomb robbing activity. Reliable on local information or bibliographic reference. Most of the surviving structures which were identified lay in either woodland, macchia or other uncultivated ground: a protection from agricultural activity.</td>
</tr>
<tr>
<td>Necropolis</td>
<td>[XXX]</td>
<td>Pottery, tile, funeral material (pottery), human bones.</td>
<td>A series of distinct surface scatters smaller than 225 m², each containing pottery / tile over a distinct topographical unit (hill top / slope). Multiple tomb structures, relying on local info / bibliographic reference.</td>
</tr>
<tr>
<td>Site Interpretation</td>
<td>Area</td>
<td>Material evidence</td>
<td>Notes</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>House / Tomb</td>
<td>&lt; 200 m²</td>
<td>[XXX]</td>
<td>No specific material.</td>
</tr>
<tr>
<td>House / Farmstead</td>
<td>&lt; 1,000 m²</td>
<td>Loom weight, slag, grinding stone, pithos and roof tiles.</td>
<td>[XXX]</td>
</tr>
<tr>
<td>House / Necropolis</td>
<td>200 &gt; &lt; 1,000 m²</td>
<td>[XXX]</td>
<td>No specific material.</td>
</tr>
<tr>
<td>Villa</td>
<td>&gt; 2,500 m²</td>
<td>Building material (high concentration), architectural fragments, column drums, painted wall fragments, preserved structure.</td>
<td>Standing productive or residential structure, with high concentration of finds.</td>
</tr>
<tr>
<td>Fortified hill top</td>
<td>[XXX]</td>
<td>Defensive wall</td>
<td>Defensive wall structure.</td>
</tr>
<tr>
<td>Village</td>
<td>1,000 &gt; &lt; 40,000 m²</td>
<td>[XXX]</td>
<td>A series of material scatters classifiable as a house.</td>
</tr>
<tr>
<td>Minor centre</td>
<td>&gt; 40,000 m²</td>
<td>Defensive wall</td>
<td>A material scatters classifiable as a house, with defense (enclosing) wall.</td>
</tr>
<tr>
<td>City</td>
<td>&gt; 300,000 m²</td>
<td>[XXX]</td>
<td>A series of material scatters classifiable as a house.</td>
</tr>
<tr>
<td>Kiln</td>
<td>[XXX]</td>
<td>Ceramic wastes or byproducts.</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Sporadic</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Thin small scatter or stray finds.</td>
</tr>
<tr>
<td>Temple</td>
<td>[XXX]</td>
<td>Architectural terracottas</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Road</td>
<td>[XXX]</td>
<td>[Stone]</td>
<td>Alignment of stones or a cutting in rock.</td>
</tr>
</tbody>
</table>
### Table #6

**Project:** Polythetic classification of surface scatters for the Albegna Valley / Ager Cosanus survey.

**Source:** Perkins 1999a-b [[^3]]

<table>
<thead>
<tr>
<th>Site Interpretation</th>
<th>Area</th>
<th>Material evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>House</td>
<td>25 &gt; &lt; 100 m²</td>
<td>Loom weight, slag, grinding stone, pithos, roof tiles.</td>
<td>Consistent and continuous scatter of roof tile, pottery, building stones. Artifacts indicate food preparation or domestic crafts. Pithoi without roof tiles may indicate tombs.</td>
</tr>
<tr>
<td>House / tomb</td>
<td>&lt; 200 m²</td>
<td>[XXX]</td>
<td>Thin scatter, with no other distinguishing characteristics. In the absence of decisive finds, stone or tile may also indicate a tomb.</td>
</tr>
<tr>
<td>House / necropolis</td>
<td>&gt; 200 m²</td>
<td>[XXX]</td>
<td>The only difference with 'house or tomb' is the size.</td>
</tr>
<tr>
<td>House 2</td>
<td>1,500 &gt; &lt; 2,500 m²</td>
<td>Large quantities of building materials (concrete, cocciopesto, floor tiles).</td>
<td>Identical to 'house', but with additional evidence (large quantities of concrete, cocciopesto, or floor tiles), but no structural or architectural evidence. [Roman period only].</td>
</tr>
<tr>
<td>Villa</td>
<td>&gt; 2,500 m²</td>
<td>Building material, architectural evidence (column drums, bases or capitals, painted wall plaster), preserved structure.</td>
<td>Dense concentration, with presence of standing structure (e.g. cryptoporticus). Possible bibliographic accounts. [Roman period only].</td>
</tr>
<tr>
<td>Fortified hilltop</td>
<td>&lt; 40,000 m²</td>
<td>Defensive wall</td>
<td>Presence of defences around a hill top (Poorly understood, but generally strategic location).</td>
</tr>
<tr>
<td>Village</td>
<td>100 / 1,000 &gt; &lt; 40,000 m²</td>
<td>[XXX]</td>
<td>A series of distinct scatters classifiable as 'house' (material scatter per unit identical to 'house's'). [A.k.a. 'nucleated settlement'].</td>
</tr>
<tr>
<td>Minor centre</td>
<td>&gt; 40,000 m²</td>
<td>Defensive wall</td>
<td>Identical to 'house' (but larger). Presence of defences, enclosing more than 4 ha. Distinguished from 'village' and 'fortified hill top', on basis of size. May include modern settlements with no other type of evidence.</td>
</tr>
<tr>
<td>City</td>
<td>&gt; 300,000 m²</td>
<td>[XXX]</td>
<td>Identical to 'house' (but larger).</td>
</tr>
<tr>
<td>Kiln</td>
<td>[XXX]</td>
<td>Ceramic wasters</td>
<td>May also occur at domestic sites.</td>
</tr>
<tr>
<td>Sporadic</td>
<td>[XXX]</td>
<td>Ceramic wasters</td>
<td>Thin / diffuse scatter or stray find, not classifiable in any other class. Often used for small quantities of earlier material found at Roman site.</td>
</tr>
<tr>
<td>Temple</td>
<td>[XXX]</td>
<td>Architectural terracottas (of temple type).</td>
<td>In practice, these have occurred only in relation to known temples.</td>
</tr>
<tr>
<td>Road</td>
<td>[XXX]</td>
<td>Stones</td>
<td>Alignment of stones or a cutting in rock.</td>
</tr>
</tbody>
</table>

[^3]: Perkins 1999a-b [[^3]]
### Historical classification of Roman site types for the northern Campania survey

**Project:** Historical classification of Roman site types for the northern Campania survey  
**Source:** [Arthur 1991. ([*]nr.4)](Arthur1991)  

<table>
<thead>
<tr>
<th>Site Interpretation</th>
<th>Area</th>
<th>Material evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town (Colonia Municipium)</td>
<td>[XXX]</td>
<td>Preserved structure</td>
<td>Activity areas beyond purely agrarian use (e.g. exchange, manufacturing, ritual). Presence of distinct public buildings, provided these are not purely religious [otherwise class as village].</td>
</tr>
<tr>
<td>Forum</td>
<td>[XXX]</td>
<td></td>
<td>Similar to &quot;Town&quot;, but manufacturing evidence may be absent or outweighed by agrarian evidence.</td>
</tr>
<tr>
<td>Vicus (hamlet)</td>
<td>[XXX]</td>
<td></td>
<td>Identical to Forum, but spontaneous rather than planned development.</td>
</tr>
<tr>
<td>Pagus</td>
<td>[XXX]</td>
<td>Inscriptions</td>
<td>No specific material.</td>
</tr>
<tr>
<td>Sanctuary</td>
<td>[XXX]</td>
<td>Votive material</td>
<td>Religious, but also political and market function.</td>
</tr>
<tr>
<td>Villa</td>
<td>[XXX]</td>
<td>Stone, tile, preserved structure.</td>
<td>Standing rural structural, with clear and differentiated functional areas for agricultural and residential use (different in size and quality).</td>
</tr>
<tr>
<td>Maritime villa</td>
<td>[XXX]</td>
<td>Mosaics, wall paintings, architectural marbles.</td>
<td>Similar to &quot;Villa&quot;, but can also be suburban. With clear evidence of luxury, and possible secondary production. Proximity to the sea.</td>
</tr>
<tr>
<td>Pottery scatter</td>
<td>[XXX]</td>
<td></td>
<td>No specific material.</td>
</tr>
</tbody>
</table>

---

### Settlement Patterns in the Ager Cosanus: The Wesleyan University Survey, 1974-1976

**Project:** Settlement Patterns in the Ager Cosanus: The Wesleyan University Survey, 1974-1976  
**Source:** [Dyson 1978. ([*]nr.5)](Dyson1978)  

<table>
<thead>
<tr>
<th>Site Interpretation</th>
<th>Area</th>
<th>Material evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Villa (major)</td>
<td>[XXX]</td>
<td>Luxury architecture (e.g. terraces, towers), decorative details (e.g. painted walls, mosaics).</td>
<td>With significant architectural remains / decorative details.</td>
</tr>
<tr>
<td>Villa (well-to-do)</td>
<td>[XXX]</td>
<td>Architecture (e.g. artificial platforms), decorative details (e.g. painted walls, mosaics, stone revetment).</td>
<td>Without the major architectural features of class 'A'.</td>
</tr>
<tr>
<td>Villa (small)</td>
<td>[XXX]</td>
<td>Floors: cocciopesto (cement / concrete), opus spiccatum (brick &amp; cement / concrete).</td>
<td>With some modest amenities (see floors).</td>
</tr>
<tr>
<td>Villa (small) / house</td>
<td>[XXX]</td>
<td>Tiles and ceramics.</td>
<td>[XXX]</td>
</tr>
</tbody>
</table>
## Table #9

<table>
<thead>
<tr>
<th>Site Interpretation</th>
<th>Area</th>
<th>Material evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomb (isolated)</td>
<td>1 &gt; 50 m²</td>
<td>Ceramica fine da mensa, sculptures, architectonical decorations [decorative &amp; lurury]; Funeral inscriptions, tiles, human remains [other characteristics].</td>
<td>Localized mainly in the plain or on hill sides, no shortage of claims on top, rarely in the valley.</td>
</tr>
<tr>
<td>Necropolis (small)</td>
<td>51 &gt; 100 m²</td>
<td>Ceramica fine da mensa (&gt; 4% of total assemblage), sculptures, architectonical decorations [decorative &amp; lurury]; Funeral inscriptions, tiles, human remains [other characteristics].</td>
<td>Mainly located in the plains or on hill sides, no shortage claims on top, to a lesser degree in the plain / valley.</td>
</tr>
<tr>
<td>Necropolis (grand)</td>
<td>101 &gt; 10,000 m²</td>
<td>[Identical to the above mentioned classification]</td>
<td>Mainly located on hill sides, many claims on top, to a lesser degree in the plain / valley.</td>
</tr>
<tr>
<td>Casa rurale</td>
<td>100 &gt; 299 m²</td>
<td>Ceramica fine da mensa (&lt; 4% of total assemblage) [decorative &amp; lurury]; Ceramics for the production and conservation of food-products (anforae, doliae) [other characteristics].</td>
<td>Mostly located on slopes, no shortage claims on top, rarely in the plains / valley. Confronti: found in Lazio / Etruria (Carandini et al. 1997; Colonna 1990).</td>
</tr>
<tr>
<td>Farm</td>
<td>200 &gt; 699 m²</td>
<td>[Identical to the above mentioned classification]</td>
<td>Mainly located on both sides and top, rarely in the plains / valley. Confronti: found in Lazio / Etruria (Carandini et al. 1997; Colonna 1990).</td>
</tr>
<tr>
<td>Farm (grand)</td>
<td>700 &lt; 999 m²</td>
<td>[Identical to the above mentioned classification]</td>
<td>[Identical to the above mentioned classification]</td>
</tr>
<tr>
<td>Villa (small)</td>
<td>1,000 &gt; 3,000 m²</td>
<td>Ceramica fine da mensa (&gt; 4% of total assemblage), plaster, pavements, sculptures, architectonic decorations [decorative &amp; lurury]; Ceramics for the production and conservation of food-products (anforae, doliae) [other characteristics].</td>
<td>In equal proportion on slopes / top, rarely in the plain / valley. Interpreted as villae (small, medium, large) dating between V - III century B.C. With at least one indicator of luxury: a) Internal Slip Ware; b) depurated ware; c) vernice rossa ellenistica; d) acroma ellenistica; e) architectonic terracotta; f) buccero del corredo da banchetto; g) vernice nera (attica).</td>
</tr>
<tr>
<td>Villa (medium)</td>
<td>3,001 &gt; &lt; 10,000 m²</td>
<td>[Identical to the above mentioned classification]</td>
<td>[Identical to the above mentioned classification]</td>
</tr>
<tr>
<td>Villa (grand)</td>
<td>10,001 &gt; &lt; 45,000 m²</td>
<td>[Identical to the above mentioned classification]</td>
<td>[Identical to the above mentioned classification]</td>
</tr>
<tr>
<td>Village (small)</td>
<td>1,001 &gt; 9,999 m²</td>
<td>All of the classes of materials are attested in a homogeneous manner.</td>
<td>Located in equal proportion on top and sides. Settlements dating between the first half of the VIII century B.C. and the end of the VI century B.C., composed of more than one building.</td>
</tr>
<tr>
<td>Village (medium / grand)</td>
<td>10,000 &gt; &lt; 50,000 m²</td>
<td>All of the classes of materials are attested in a homogeneous manner.</td>
<td>Located in equal proportion on top and sides. Confronti: found in Lazio / Southern Etruria (Colonna 1990).</td>
</tr>
<tr>
<td>Insiemiamento</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Located in equal proportion on top and sides. Defined by human occupation in pre- and proto-history.</td>
</tr>
<tr>
<td>Farm / villa (small)</td>
<td>1,000 &gt; 3,000 m²</td>
<td>Ceramica fine da mensa, plaster, pavements, sculptures, architectonic decorations [decorative &amp; lurury]; Ceramics for the production and conservation of food-products (anforae, doliae) [other characteristics].</td>
<td>Placed almost exclusively, and in equal proportion, on slopes and tops of the hills. Defined by an archaic farm that subsequently transformed into a villa. Dating between the Republican - Imperial age, with materials dating back to the Orientalising / Archaic period (though not distributed on the entire surface of the site).</td>
</tr>
<tr>
<td>Village (medium / grand)</td>
<td>3,001 &gt; 45,000 m²</td>
<td>[Identical to the above mentioned classification]</td>
<td>[Identical to the above mentioned classification]</td>
</tr>
<tr>
<td>Mansio</td>
<td>100 &gt; 1,000 m²</td>
<td>[XXX]</td>
<td>Placed alongside the main roads.</td>
</tr>
<tr>
<td>Luogo di culto</td>
<td>&gt; 800 m²</td>
<td>Ceramica fine da mensa, sculptures, architectonic decorations [decorative &amp; lurury]; Ex-voto, votive inscriptions [other characteristics].</td>
<td>Mainly located on top, in a smaller percentage on slopes.</td>
</tr>
<tr>
<td>Site Interpretation</td>
<td>Area</td>
<td>Material evidence</td>
<td>Notes</td>
</tr>
<tr>
<td>---------------------</td>
<td>------</td>
<td>-------------------</td>
<td>-------</td>
</tr>
<tr>
<td>House / Tomb</td>
<td>&lt; 100 m²</td>
<td>[XXX]</td>
<td>No specific material.</td>
</tr>
<tr>
<td>Tomb</td>
<td>[XXX]</td>
<td>Funerary material</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Necropolis</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>A grouping of more than five tombs.</td>
</tr>
<tr>
<td>House 1</td>
<td>&lt; 900 m²</td>
<td>[XXX]</td>
<td>Scatter with lack of luxury or architectural decoration (marble, mosaic etc.).</td>
</tr>
<tr>
<td>House 2</td>
<td>&lt; 900 m²</td>
<td>Building material, opus spicatum, plaster.</td>
<td>Stone structures and/or presence of high quality architextural decoration.</td>
</tr>
<tr>
<td>Village 1</td>
<td>40,000 &gt; &lt; 100,000 m²</td>
<td>Building material</td>
<td>Presence of building material, but lack of architectural decoration.</td>
</tr>
<tr>
<td>Village 2</td>
<td>100,000 &gt; &lt; 250,000 m²</td>
<td>Building material</td>
<td>Presence of building material, but lack of architectural decoration.</td>
</tr>
<tr>
<td>Villa</td>
<td>&gt; 2,500 m²</td>
<td>Marble, mosaic, plaster, preserved structure.</td>
<td>Standing structures, containing architectural fragments related to the residential (marbles, mosaics, plasters etc.) or productive parts of a villa (torcularium etc.).</td>
</tr>
<tr>
<td>Kiln</td>
<td>[XXX]</td>
<td>Ceramic wasters</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Manure</td>
<td>[XXX]</td>
<td>Ceramics, amphorae, bricks and tiles.</td>
<td>Great quantity of material, but no specific association.</td>
</tr>
<tr>
<td>Cave</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Sporadic</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>No specific material; stray finds.</td>
</tr>
<tr>
<td>Cistern / Well</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Bridge</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Cunicolo</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>[XXX]</td>
</tr>
</tbody>
</table>
### Table #11

**Project:** Criteria adopted for Settlement Classification in the Suburbium project by Carafa  
**Source:** Carafa, P. 2000b. (p.191, note 11) [[*nr.6.2.2]

<table>
<thead>
<tr>
<th>Site Interpretation</th>
<th>Area</th>
<th>Material evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomb</td>
<td>&lt; 50 m²</td>
<td>[XXX]</td>
<td></td>
</tr>
<tr>
<td>Necropolis</td>
<td>51 &gt; &lt; 1,000 m² or 101 &gt; &lt; 10,000 m²</td>
<td>[XXX]</td>
<td></td>
</tr>
<tr>
<td>House/Farmstead</td>
<td>101 &gt; &lt; 1,000 m²</td>
<td>[XXX]</td>
<td></td>
</tr>
<tr>
<td>Villa</td>
<td>1,001 &gt; &lt; 10,000 m² or 10,001 &gt; &lt; 20,000 m²</td>
<td>[XXX]</td>
<td></td>
</tr>
<tr>
<td>Sanctuary</td>
<td>[XXX]</td>
<td>Votive objects, inscriptions.</td>
<td>Presence of cult material.</td>
</tr>
</tbody>
</table>

### Table #12

**Project:** Criteria adopted for Settlement Classification in the present work (Fulminante 2008)  
**Source:** Fulminante 2008. [Combi of methods used by Perkins 1999, Carandini et al. 2002, Carafa 2000b] [[*nr.6.2.3]

<table>
<thead>
<tr>
<th>Site Interpretation</th>
<th>Area</th>
<th>Material evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>House / Tomb</td>
<td>&lt; 200 m²</td>
<td>[XXX]</td>
<td>No specific material.</td>
</tr>
<tr>
<td>House / Necropolis</td>
<td>200 / 250 &gt; &lt; 1,000 m²</td>
<td>[XXX]</td>
<td>Similar to &quot;House / Tomb&quot;, but larger area.</td>
</tr>
<tr>
<td>House / Farmstead</td>
<td>&lt; 1,000 m²</td>
<td>Building materials, roof tiles, bricks, domestic pottery, loom weights, slag, grinding stone, pithos.</td>
<td>Presence of building material, domestic pottery and functional objects.</td>
</tr>
<tr>
<td>Villa</td>
<td>&gt; 2,500 m²</td>
<td>Building material, marbles, mosaics, plasters, preserved structure.</td>
<td>Standing structures, containing architectural fragments related to the residential (marbles, mosaics, plasters etc.) or productive part of a villa (torcularium etc.).</td>
</tr>
<tr>
<td>Village A</td>
<td>1,000 &gt; &lt; 40,000 m²</td>
<td>[XXX]</td>
<td>A series of material scatters classifiable as a house, each larger than 100 m².</td>
</tr>
<tr>
<td>Minor centre</td>
<td>40,000 &gt; &lt; 200,000 / 250,000 m²</td>
<td>Defensive wall</td>
<td>A material scatters classifiable as a house, with presence of a recognisable defence (enclosing) wall.</td>
</tr>
<tr>
<td>City</td>
<td>&gt; 200,000 / 250,000 m²</td>
<td>[XXX]</td>
<td>Similar to &quot;Minor centre&quot;, but larger area (&gt; 25 ha).</td>
</tr>
<tr>
<td>Tomb</td>
<td>&lt; 50 m²</td>
<td>Funerary material or preserved structure in situ.</td>
<td>[XXX]</td>
</tr>
</tbody>
</table>
### Table #13

<table>
<thead>
<tr>
<th>Site Interpretation</th>
<th>Area</th>
<th>Material evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Villa</td>
<td>&gt; 10,000 m²</td>
<td>Building material (Roman brick / tile, stone blocks), Marble (veneers), Roman glass, plaster, tesserae, fine-wares.</td>
<td>Artefact density (&gt; ca. five per m²), higher ratio of fine-wares than on farms. Often positioned on prominent spurs, bibliographical accounts.</td>
</tr>
<tr>
<td>Farm</td>
<td>ca. 1,500 m²</td>
<td>Building material (Roman brick / tile, stone blocks), predominance of coarse-wares (e.g. pithoi / dolia, Roman amphora, cooking stand).</td>
<td>Artefact density (&lt; ca. five per m²). Continuity of occupation.</td>
</tr>
<tr>
<td>Outbuilding</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Similar to a farm, but in close proximity to a larger site (especially villas). Often with a more restricted range of material and less evidence for long-term continuity.</td>
</tr>
<tr>
<td>Cult area</td>
<td>[XXX]</td>
<td>Votive material (Roman).</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Scatter</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Artefact density (low; ca. one per m²). With absence or limited quantities of building materials. Could be due to a variety of processes (both ancient and modern), such as manuring and movement of soils.</td>
</tr>
<tr>
<td>Wash</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>(Abraded) material at base of slopes beneath sites.</td>
</tr>
<tr>
<td>Sporadic</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Isolated find(s)</td>
</tr>
</tbody>
</table>

### Table #14

<table>
<thead>
<tr>
<th>Site Interpretation</th>
<th>Area</th>
<th>Material evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huts (Minor sites)</td>
<td>[XXX]</td>
<td>Pottery sherds, tiles.</td>
<td>Poorest sites, consisted only of pottery sherds and tiles.</td>
</tr>
<tr>
<td>Villa</td>
<td>[XXX]</td>
<td>Patterned wall plaster, mosaic tesserae, marble veneer, large amounts of fine / window glass (Kahane et al. 1968, p.154), preserved structure</td>
<td>Differentiated from farms by more elaborate structures and a higher quality of finds.</td>
</tr>
<tr>
<td>Villa (large)</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Differentiated from standard ones by their size (Potter 1992).</td>
</tr>
<tr>
<td>Tombs / burials</td>
<td>[XXX]</td>
<td>Rock-cut structures, roof-tiles, pottery, preserved structure.</td>
<td>Defined by rock-cut structures or by clearly defined small scatters of roof-tile, pottery in the areas associated with known cemeteries.</td>
</tr>
<tr>
<td>Site Interpretation</td>
<td>Area</td>
<td>Material evidence</td>
<td>Notes</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>House unit (small)</td>
<td>200 &gt; &lt; 1,200 m²</td>
<td>Building material (roof-tiles, rough stones), pottery (almost no fine-wares).</td>
<td>Small concentration. Simple building materials (e.g., roof-tiles, rough stones), very small quantities of pottery (almost no fine wares). Possibly seasonal or temporary.</td>
</tr>
<tr>
<td>Farm</td>
<td>1,200 &gt; &lt; 2,500 m²</td>
<td>Building material (roof-tiles, cut / rough stones, bricks), pottery (fine, common wares), preserved structure.</td>
<td>Medium-size concentration. With one compact area; more but simple building materials (roof tiles, cut / rough stones, brick), larger variety of pottery (fine / common wares) than Type 1. If structures are present: compact rectangular building.</td>
</tr>
<tr>
<td>Farm(large) / villa(simple)</td>
<td>2,500 &gt; &lt; 4,000 m²</td>
<td>Building material (roof-tiles, cut / rough stones, bricks, concrete), pottery (fine, common wares), preserved structure.</td>
<td>Large concentration[s]. With several functional units; more diverse building materials (roof-tiles, cut / rough stones, brick, concrete) and a large variety of pottery (fine / common wares). If structures are present: one main building and more outhouses / activity zones.</td>
</tr>
<tr>
<td>Villa</td>
<td>3,000 &gt; &lt; 6,000 m²</td>
<td>Building material (roof-tiles, cut / rough stones, bricks, concrete), luxury goods (crustae, tesserae, columns, tubuli), pottery (fine, imported wares), preserved structure.</td>
<td>Large concentration[s]. With several functional units; great diversity of building materials (as in Type 3) and signs of luxury (crustae, tesserae, columns, tubuli) and a greater variety of pottery (more fine / imported products) than Type 3. If structures are identified: one main building and outhouses / activity zones. Sometimes placed at a dominant location in the landscape.</td>
</tr>
<tr>
<td>Roadside settlement</td>
<td>3,000 &gt; &lt; 6,000 m²</td>
<td>Building material (roof-tiles, cut / rough stones, bricks, concrete), pottery (tablewares, amphorae, lamps), preserved structure.</td>
<td>Large concentration. Great diversity of building materials (as in Type 3) and a good variety of pottery (higher density of tablewares, amphorae, lamps). The structures are longitudinal buildings aligned with a Roman road or bridge.</td>
</tr>
<tr>
<td>Vicus(small) / village</td>
<td>ca. 12,000 m²</td>
<td>Building material (roof-tiles, cut / rough stones, bricks, concrete), pottery (fine, imported wares).</td>
<td>Very large area with several concentrations. Great diversity of building materials (see Type 3) and a greater variety of pottery than Type 5 (more fine / imported products). Structures are connected with a Roman Road.</td>
</tr>
<tr>
<td>Site Interpretation</td>
<td>Area</td>
<td>Material evidence</td>
<td>Notes</td>
</tr>
<tr>
<td>---------------------</td>
<td>------</td>
<td>-------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Settlement #1: “Unknown”</td>
<td>&lt; 51 m²</td>
<td>Standard</td>
<td>[Low monumentality: no or few architecture]; Sites with deviating or very small assemblage that do include cooking / storage ware; Sites for which we have no information except location.</td>
</tr>
<tr>
<td>Settlement #2: class 1</td>
<td>[XXX]</td>
<td>Tile, pottery (coarse ware, fine ware, amphora, dolium), stone.</td>
<td>[Medium monumentality: tile and stone debris]</td>
</tr>
<tr>
<td>Settlement #3: class 2</td>
<td>[XXX]</td>
<td>Tile, pottery (coarse ware, fine ware, amphora, dolium), stone, masonry walls, cistern.</td>
<td>[High monumentality: tile / stone debris with additional masonry wall, cisterns etc.]; same as above, but with masonry walls.</td>
</tr>
<tr>
<td>Settlement #4: class 3</td>
<td>[XXX]</td>
<td>[Same as above, but with added]: marble, mosaic, wall paintings.</td>
<td>[Very high monumentality: tile / stone debris with additional masonry wall, cisterns. High value ‘luxury’ features]; same as above, but with high-value ‘luxury’ features.</td>
</tr>
<tr>
<td>Settlement #5: village</td>
<td>&gt; 10,000 m²</td>
<td>Tile, pottery (coarse ware, fine ware, amphora, dolium), masonry walls.</td>
<td>Same as Settlement “class 1” and “class 2”, but larger area.</td>
</tr>
<tr>
<td>Agricultural #1: storage</td>
<td>[XXX]</td>
<td>Storage / transport wares: dolium / amphora.</td>
<td>Large quantities of storage / transport wares; much or only dolium / amphora.</td>
</tr>
<tr>
<td>Agricultural #2: olive / wine processing</td>
<td>[XXX]</td>
<td>Torcular</td>
<td>Large quantities of storage / transport wares.</td>
</tr>
<tr>
<td>Agricultural #3: non-intensive use</td>
<td>51 &gt; &lt; 200 m²</td>
<td>[XXX]</td>
<td>Small sites with few finds, by their source interpreted as outbuildings.</td>
</tr>
<tr>
<td>Agricultural #4: cistern</td>
<td>[XXX]</td>
<td>Cistern</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Agricultural #5: cuniculus</td>
<td>[XXX]</td>
<td>Cuniculus</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Manufacturing #1: tile / pottery production</td>
<td>[XXX]</td>
<td>production</td>
<td>Excluding sites with very few wasters only.</td>
</tr>
<tr>
<td>Manufacturing #2: dolium production</td>
<td>[XXX]</td>
<td>production</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Manufacturing #3: glass production</td>
<td>[XXX]</td>
<td>production</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Manufacturing #4: quarry</td>
<td>[XXX]</td>
<td>Quarry</td>
<td></td>
</tr>
<tr>
<td>Infrastructure #1: road</td>
<td>[XXX]</td>
<td>Pavement</td>
<td>Pavement or substructure remains.</td>
</tr>
<tr>
<td>Infrastructure #2: harbour / pier</td>
<td>[XXX]</td>
<td>Harbour / pier</td>
<td></td>
</tr>
<tr>
<td>Burial #1: burials</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>May include sites with medium / low architecture, small / very small size, small assemblage with much table ware / high score on imports &quot;[burial?]”; Tombe a cappucina, monumental tombs.</td>
</tr>
<tr>
<td>Cultic #1: votive objects</td>
<td>[XXX]</td>
<td>Votives, inscriptions</td>
<td>Specific non-standard remains.</td>
</tr>
<tr>
<td>Cultic #2: sanctuary</td>
<td>[XXX]</td>
<td>terracotta’s, votives</td>
<td>Specific non-standard remains; temple.</td>
</tr>
<tr>
<td>Defensive #1: lookout post</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Strategic location not fit or too small for settlement.</td>
</tr>
<tr>
<td>Defensive #2: defended settlement</td>
<td>[XXX]</td>
<td>Defensive wall</td>
<td>Sites with settlement characteristics in a strategic location and with polygonal masonry walls.</td>
</tr>
<tr>
<td>Site Interpretation</td>
<td>Area</td>
<td>Material evidence</td>
<td>Notes</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Small site #1: Storage area</td>
<td>200 &gt; &lt; 1,050 m²</td>
<td>Tile, amphora, dolium.</td>
<td>[Average of app. 600 m²]; no coarse- or fine wares.</td>
</tr>
<tr>
<td>Small site #2: Farmstead</td>
<td>200 &gt; &lt; 1,050 m²</td>
<td>coarse ware, fine ware, amphora, building material (tile, stones).</td>
<td>[Average of app. 600 m²]; complete pottery assemblage / building remains.</td>
</tr>
<tr>
<td>Small site #3: &quot;Uncertain&quot;</td>
<td>200 &gt; &lt; 1,050 m²</td>
<td>Tile, Stone</td>
<td>[Average of app. 600 m²]; Incomplete ceramic assemblage / building remains; Could represent storage areas / outbuildings, farmsteads or perhaps rural cemeteries.</td>
</tr>
<tr>
<td>Large site #1: Large farmstead</td>
<td>2,500 &gt; &lt; 7,800 m²</td>
<td>Pottery (coarse wares, fine wares, amphorae), building remains (tile, stones, cistern, cement walls), glass, metal.</td>
<td>[Average of app. 5,111 m²; approximately twice as large as the small sites]; complete and sometimes quite large ceramic assemblage, building remains and sometimes glass / metal finds.</td>
</tr>
<tr>
<td>Large site #2: Villa</td>
<td>2,500 &gt; &lt; 7,800 m²</td>
<td>Pottery (coarse wares, fine wares, amphorae), building remains (tile, stones), glass, coins, marble, sculpture.</td>
<td>[Average of app. 5,111 m²; approximately twice as large as the small sites]; Complete and quite large ceramic assemblage (coarse wares, fine wares, amphorae), building remains (tile, stones), glass, coins, marble and sculpture; Interpreted as a large farmstead with a residential function (e.g. a Villa).</td>
</tr>
<tr>
<td>Very large site #1: Village</td>
<td>&gt; 20,000 m²</td>
<td>Pottery (coarse wares, fine wares, amphorae), building remains (tile, stones), glass, production (slags, wasters, kiln).</td>
<td>Complete pottery assemblages (coarse wares, fine wares, amphorae), building remains (tile, stones), glass; evidence for the production of metal and pottery (slags, wasters, and possibly kiln material); Possibly be interpreted as villages, although the size estimate may be influenced by levelling activities.</td>
</tr>
</tbody>
</table>

Road

Tomb

Indeterminate

Table #17
<table>
<thead>
<tr>
<th>Site Interpretation</th>
<th>Area</th>
<th>Material evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitation #1: Town</td>
<td>[XXX]</td>
<td>Defensive wall</td>
<td>Defined by wall or historical evidence.</td>
</tr>
<tr>
<td>Habitation #2: Hamlet</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Cluster of huts or farmsteads with no evidence for central functions.</td>
</tr>
<tr>
<td>Habitation #3: Farmstead 2</td>
<td>[XXX]</td>
<td>Tiles, masonry structures, pavements, preserved structure.</td>
<td>As “farmstead 1”, but with [additional] masonry structures and / or pavements.</td>
</tr>
<tr>
<td>Habitation #4: Villa</td>
<td>[XXX]</td>
<td>Tiles, masonry structures, pavements, luxury goods.</td>
<td>Large Roman farmstead with complex architecture and evidence of luxury goods or features.</td>
</tr>
<tr>
<td>Habitation #5: Farmstead 1</td>
<td>[XXX]</td>
<td>Tiles, stone structures, preserved structure.</td>
<td>Small agricultural establishment with at least partly tiled roof (“fattoria”); may have drystone structures.</td>
</tr>
<tr>
<td>Habitation #6: Hut</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Protohistoric structure made out of perishable materials, with complex finds assemblage.</td>
</tr>
<tr>
<td>Habitation #7: Monastery</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td></td>
</tr>
<tr>
<td>Defensive structure #1: Castle</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td></td>
</tr>
<tr>
<td>Defensive structure #2: Tower</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td></td>
</tr>
<tr>
<td>Defensive structure #3: Hilltop enclosure</td>
<td>[XXX]</td>
<td>Defensive wall</td>
<td>Enclosed hilltop; heavy drystone wall and evidence for occupation.</td>
</tr>
<tr>
<td>Burial ground #1: Grave</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Single burial (e.g. “tomba”).</td>
</tr>
<tr>
<td>Burial ground #2: Cemetery</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Multiple burials (e.g. “tombe”).</td>
</tr>
<tr>
<td>Water supply #1: Cistern</td>
<td>[XXX]</td>
<td>Cisterna, preserved structure.</td>
<td>Built structure for the collection and storage of rain water (“cisterna”).</td>
</tr>
<tr>
<td>Water supply #3: Aqueduct</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td></td>
</tr>
<tr>
<td>Water supply #4: Cuniculo</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td></td>
</tr>
<tr>
<td>Water supply #5: Dam</td>
<td>[XXX]</td>
<td>Preserved structure</td>
<td>Built structure for the regulation of a stream (“briglia”).</td>
</tr>
<tr>
<td>Agricultural structure #1: Shed / outbuilding</td>
<td>[XXX]</td>
<td>Tile, storage vessels, preserved structure.</td>
<td>No evidence for habitation; may have limited drystone structures.</td>
</tr>
<tr>
<td>Agricultural structure #2: Terrace revetment wall</td>
<td>[XXX]</td>
<td>Preserved structure</td>
<td>Drystone structure for the preservation of soil and moisture (“terrazzamento”).</td>
</tr>
<tr>
<td>Agricultural structure #3: Ditch / canal</td>
<td>[XXX]</td>
<td>Preserved structure</td>
<td>Structure for the drainage of surface water.</td>
</tr>
</tbody>
</table>
### Table #18 – Pt. II

<table>
<thead>
<tr>
<th>Site Interpretation</th>
<th>Area</th>
<th>Material evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural structure #5: Fish pond(s)</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Infrastructure #1: Road</td>
<td>[XXX]</td>
<td>Stone</td>
<td>Preserved stretches of road surface / revetment; Basoli in or near situ.</td>
</tr>
<tr>
<td>Infrastructure #2: Bridge</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Infrastructure #3: Slope revetment</td>
<td>[XXX]</td>
<td>Preserved structure</td>
<td>Structure to prevent slope erosion or slumping.</td>
</tr>
<tr>
<td>Pastoral structure #1: Pastoral enclosure</td>
<td>[XXX]</td>
<td>Preserved structure</td>
<td>Walled compound.</td>
</tr>
<tr>
<td>Production #1: Kiln</td>
<td>[XXX]</td>
<td>Kiln</td>
<td>Pottery or lime kiln.</td>
</tr>
<tr>
<td>Production #2: Quarry</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Limestone, tuff, travertine, sand, clay pit (&quot;cava&quot;).</td>
</tr>
<tr>
<td>Production #3: Saltern</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Cultic structure</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Cave / shelter #1: Cave</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>(grotta).</td>
</tr>
<tr>
<td>Cave / shelter #2: Rock shelter</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>(riparo).</td>
</tr>
<tr>
<td>Presence (activity)</td>
<td>[XXX]</td>
<td>[XXX]</td>
<td>Evidence insufficient for typological classification; low variability and diagnosticity of assemblage; Does not include “off-site&quot; (&quot;materiale sporadico&quot;).</td>
</tr>
</tbody>
</table>

### Table #19

<table>
<thead>
<tr>
<th>Site Interpretation</th>
<th>Area</th>
<th>Material evidence</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village</td>
<td>10,000 &gt; &lt; 20,000 m²</td>
<td>Ceramics, building material, production (e.g. kilns).</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Villa</td>
<td>10,000 &gt; &lt; 30,000 m²</td>
<td>Ceramics, luxury architecture (mosaics, columns).</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Large settlement</td>
<td>10,000 &gt; &lt; 30,000 m²</td>
<td>[XXX]</td>
<td>Spatial and wealth characteristics unclear.</td>
</tr>
<tr>
<td>Farm</td>
<td>500 &gt; &lt; 1,500 m²</td>
<td>Ceramics, building material, storage / transport ceramics (e.g. ‘amphorae’, ‘dolia’).</td>
<td>[XXX]</td>
</tr>
<tr>
<td>House</td>
<td>100 &gt; &lt; 500 m²</td>
<td>Ceramics, building material, storage / transport ceramics (e.g. ‘amphorae’, ‘dolia’).</td>
<td>Interpreted as single-family house.</td>
</tr>
<tr>
<td>Kiln</td>
<td>[XXX]</td>
<td>Overfired / waster of ceramics, darkened soil.</td>
<td>[XXX]</td>
</tr>
<tr>
<td>Off-sites</td>
<td>&lt; 1.0 m²</td>
<td>Ceramics</td>
<td>Scatters measuring &lt; 1.0 m, or somewhat larger diffuse scatters (1-2 sherds).</td>
</tr>
</tbody>
</table>
Part B-IV:

- Table of Classificatory Dichotomies -
## Survey Projects

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) General applicability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i)</td>
<td>[Unitary site-classes]</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>(ii)</td>
<td>['Emic' / 'Etic'-classes]</td>
<td>Emic</td>
<td>Etic</td>
<td>Etic</td>
<td>Etic</td>
<td>Emic</td>
<td>Emic</td>
<td>Emic</td>
<td>Etic</td>
<td>Etic</td>
<td>Etic</td>
<td></td>
</tr>
<tr>
<td>(iii)</td>
<td>[Predefined (i.e. Global) / Local]</td>
<td>Both</td>
<td>Global</td>
<td>Local</td>
<td>Local</td>
<td>Global</td>
<td>Local</td>
<td>Global</td>
<td>Global</td>
<td>n/a</td>
<td>Global</td>
<td></td>
</tr>
<tr>
<td>(B) Scatter-size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv)</td>
<td>[Size incorporation]</td>
<td>n/a</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>n/a</td>
<td>n/a</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>(v)</td>
<td>[Size absolute / relative]</td>
<td>Absolute</td>
<td>Both</td>
<td>Absolute</td>
<td>Absolute</td>
<td>Absolute</td>
<td>n/a</td>
<td>Relative</td>
<td>Absolute</td>
<td>Absolute</td>
<td>Absolute</td>
<td>Absolute</td>
</tr>
<tr>
<td>(vi)</td>
<td>[Size overlap / continuous]</td>
<td>n/a</td>
<td>n/a</td>
<td>Overlap</td>
<td>Cont.</td>
<td>Overlap</td>
<td>n/a</td>
<td>n/a</td>
<td>Cont.</td>
<td>Cont.</td>
<td>Cont.</td>
<td>Cont.</td>
</tr>
<tr>
<td>(C) Material Assemblage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(vii)</td>
<td>[Descriptive / interpretative]</td>
<td>Both</td>
<td>Descript</td>
<td>Descript</td>
<td>Descript</td>
<td>Descript</td>
<td>Descript</td>
<td>Both</td>
<td>Descript</td>
<td>Both</td>
<td>Descript</td>
<td>Descript</td>
</tr>
<tr>
<td>(viii)</td>
<td>[Mats. absolute / relative]</td>
<td>Both</td>
<td>Relative</td>
<td>Relative</td>
<td>Relative</td>
<td>Relative</td>
<td>n/a</td>
<td>n/a</td>
<td>Absolute</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Table 20**: A table listing the most important classificatory dichotomies per survey project (#1 – 6). The characteristics can be subdivided into three distinct subject groups: (A) the general applicability of the site-classes (implemented in the discussed survey projects), (B) ‘scatter-sizes’, and (C) ‘material assemblages’. In essence, these three definitive questions related to the incorporated site-classifications will be used as a guideline to compare the methodological backgrounds of the included cases during the analysis. They will provide insight into the general setup of classification systems dealing with Republican rural site-types, as well as provide the data for a ‘most fitting’ site-classification system. The colours in the table visualise the differences between the projects: green marking the first probability (e.g. projects with emic site-classes), red marking the second probability (e.g. project with emic site-classes), en grey the exceptions from the rule.
**Survey Projects**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>[Unitary site-classes]</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>(ii)</td>
<td>['Emic' / 'Etic'-classes]</td>
<td>Etic</td>
<td>Both</td>
<td>Both</td>
<td>Etic</td>
<td>Both</td>
<td>Both</td>
<td>Etic</td>
</tr>
<tr>
<td>(iii)</td>
<td>[Predefined (i.e. Global) / Local]</td>
<td>Local</td>
<td>Global</td>
<td>Global</td>
<td>Global</td>
<td>Global</td>
<td>Global</td>
<td>Local</td>
</tr>
<tr>
<td>(iv)</td>
<td>[Size incorporation]</td>
<td>n/a</td>
<td>Yes</td>
<td>Yes</td>
<td>n/a</td>
<td>Yes</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>(v)</td>
<td>[Size absolute / relative]</td>
<td>Absolute</td>
<td>n/a</td>
<td>Absolute</td>
<td>Absolute</td>
<td>Absol.</td>
<td>Absolute</td>
<td>Absolute</td>
</tr>
<tr>
<td>(vi)</td>
<td>[Size overlap / continuous]</td>
<td>n/a</td>
<td>n/a</td>
<td>Cont.</td>
<td>n/a</td>
<td>Overlap</td>
<td>Overlap</td>
<td>Overlap</td>
</tr>
<tr>
<td>(viii)</td>
<td>[Mats. absolute / relative]</td>
<td>Relative</td>
<td>Relative</td>
<td>Relative</td>
<td>Relative</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Table 21**: A table listing the most important classificatory dichotomies per survey project (#7 – 11). The characteristics can be subdivided into three distinct subject groups: (A) the general applicability of the site-classes (implemented in the discussed survey projects), (B) 'scatter-sizes', and (C) 'material assemblages'. In essence, these three definitive questions related to the incorporated site-classifications will be used as a guideline to compare the methodological backgrounds of the included cases during the analysis. They will provide insight into the general setup of classification systems dealing with Republican rural site-types, as well as provide the data for a 'most fitting' site-classification system. The colours in the table visualise the differences between the projects: green marking the first probability (e.g. projects with emic site-classes), red marking the second probability (e.g. project with emic site-classes), en grey the exceptions from the rule.
“Chapter 2: Survey”

Part B-V:

-Graphs of Classificatory Dichotomies-
[‘Unitary’ or ‘Sub’-groups]

[‘Emic’ or ‘Etic’]

[‘Absolute’ or ‘relative’ size]

[Size ‘overlap’ or ‘continuous’]

[Materials ‘descript.’ or ‘interp.’]

[Materials ‘absolute’or ‘relative’]

Graphs 1 - 6: Pie-charts listing the percentages of survey projects with site classes mentioning “unitary or sub-groups” (‘Aspect-iv’) & site classes of “Emic or Etic-nature” (‘Aspect-v’; Above); the projects with site classes with defined “absolute or relative sizes” (‘Aspect-viii’) & “continuous or overlapping sizes” (‘Aspect-xi’; Middle); and the projects with site classes either “descriptive or interpretative” (‘Aspect-x’) & “absolute or relative find densities” (‘Aspect-xi’; Below).
[Attachments]:

“Chapter 2: Survey”

Part B-VI:
-Scatters-size Graphs-
Graph 7 - 9: Box-plots listing the dimensions of the (surface) scatters of the (A) "House"-type (Above), (B) "House / Farmstead"-type (Middle), and (C) "House / Villa"-type (Below).
Graph 10 - 12: Box-plots listing the dimensions of the (surface) scatters of the (D) "Farmstead"-type (Above), (E) "Farmstead / Villa"-type (Middle), and (F) "Villa"-type (Below).
Graph 13.1 - 13.3: Box-plots listing the dimensions of the (surface) scatters of the 'selection part I' of the "Villa"-type (Above), 'selection part II' of the "Villa"-type (Middle), the "Villa"-type ('averages'; Below).
[Attachments]:

“Chapter 2: Survey”

Part B-VII:

-Material Classification Graphs-
Graph 14 - 16: Histograms listing the find material of the (A) “House”-type (Above), (B) “House / Farmstead”-type (Middle), and (C) “House / Villa”-type (Below). The color-coded lines represent the number of class-systems either defining the material assemblages (Green) or not defining them at all (Red).
Graph 17 - 19: Histograms listing the find material of the (D) "Farmstead"-type (Above), (E) "Farm / Villa"-type (Middle), and (F) "Villa"-type (Below). The color-coded lines represent the number of class-systems either defining the material assemblages (Green) or not defining them at all (Red).
Graph 20.1 - 20.2: Histograms listing the find material of the ‘selection part I’ of the "Villa"-type (Above) and ‘selection part II’ of the "Villa"-type (Below). The color-coded lines represent the number of class-systems either defining the material assemblages (Green) or not defining them at all (Red).
Graph 21 - 23: Pie-charts listing the find material classes in percentages (as mentioned in the original site-classification systems) of the (A) "House"-type (Above), (F) "Farmstead"-type (Middle), and (H) "Villa"-type (Below). The "main" material find classes are labelled with a "(*)" in the legend. The colour-ranges represent the general material classes: 'Simple Building Material' (Blue), 'Luxurious Building Material' (Red), 'Pottery Types' (Green), and 'Additional Materials' (Purple).
Part B-VIII:

-Site-characteristics per Site-type-
Introduction

This part of the attachments will discuss the site-characteristics as highlighted by Witcher (2012), but in direct relation to the site-types mentioned in the included case-studies. The type descriptions are based on the outcomes of the data-set compiled in the Microsoft Access-database (designed specifically for this chapter). Through the use of this database, which includes the individual site-classification data from the different survey projects and their incorporated classification schemes, the individually labelled classes could be compared side-by-side. This process provides insight into both the primary and secondary indicators for each site-type, and shows similarities (or differences) between the discussed site-typologies. For specifics on the statistical data provided by this analysis, see the tables and diagrams on scatter-size, material assemblage, etcetera (Attachments part VI – VII).

The aim of this thesis is to understand the Republican rural sites, but as all site-classes within a typology are defined in relation to each other, an analysis should include all main site-types. Only then the difference between farmstead and villa can be addressed. Different site-classification systems however, use different site-labels (for in some cases almost identical site-classes), making a standardisation of the site-labels essential. An overarching framework of general site-classes was defined to structuralise the site-classes. The medium scatter (farm) from Rathbone’s (2008) project would for instance be placed within the general farmstead-class, and his extensive scatter (villa) within the villa-class. Other, more difficult to define sub-classes (e.g. ‘House / Villa’ or ‘House / Farmstead’) were each given their own class, and analysed accordingly. In a later stage these could then be placed within one of the general classes, based on similarities in site-definitions or site-characteristics.56

The text below will discuss the specific site-types one at a time, providing information on: “In which site-classification systems is the site-type discussed?”, “Which site-characteristics are mentioned in relation to these site-types, within the different classification-systems: size-range vs. material assemblage?”, “Which characteristic is the most site-defining (i.e. what are true ‘site-indicators’)?”, and finally (based on all the evidence compiled) “How should the material-scatter be defined as a whole?” 57

The list of generalised site-classes58 will pursue the following order: (A) House, (B) House / Farmstead, (C) House / Villa, (D) Farmstead, (E) Farmstead / Villa, (F) Villa.59

---

56 The re-evaluation of these so-called “sub-classes” includes: (i) “House / Tomb” and “House / Necropolis” (included within the “House”-type, based on the lack of funerary goods); (ii) “House / Farmstead” (which could not be replaced, as it showed both evidence for “House”- and “Farmstead”-type); (iii) “House / Villa” (which was interpreted as a “House”, as it had similar finds but lacked luxury indicators); and (iv) “Farmstead / Villa” (which was placed within the “Villa”-type, but as a medium to small example of this type).

57 E.g. for a “House” = A simple material scatters of varying size, comprised mainly of simple building material and ceramics, with secondary indicators of household production or storage”.

58 In addition to the here mentioned site-classes, the dataset also provided insight into others included within the site-classification systems (“House / Tomb”, “House / Necropolis”, “Village”, “Minor Centre”, “City / Town”, “Tomb”, “Necropolis” and “Cult Area / Temple”). Information on their analysis can be requested from the author.

59 References in the text below are to other parts of the attachments: Size Graphs in Pt. VI and Material Graphs in Pt. VII.
(A) House

The house-type is mentioned in nine classification systems in one form or another. Some, e.g. Carandini (2002), Perkins (1999a-b; based on size differences) and Perkins (1999a; based on size and chronology, one specifically Roman) even mention two types per classification. This brings the total number of examples to twelve.

Three-quarters of the examples are provided with both size-estimates and material assemblages. This leads to a subdivision of the site-type in three distinct groups (see graph 7; p.55): < 250 m² (small; 3x⁶¹), 250 > < 1,200 m² (medium; 3.5x) and 1,200 > < 2,500 m² (large; 2.5x). Size seems to be the distinguishing factor between the different classes, as the material indicators do not form groups. The main material indicators for the class are (see graph 14; p.59): building materials (floor / roof tiles) and simple pottery scatters (not specified into specific ceramic-types). On the low end this is supplemented by household production material (i.e. grinding stone, loom weight and slag) and storage wares (pithoi). Some systems also indicate luxurious building material (e.g. painted plaster), but as this is only found in one or two examples, we can conclude that most house-types lacked these status indicators.

Based on the evidence, the house-type should thus be interpreted as simple material scatters of varying size, comprised mainly of simple building material and ceramics, with secondary indicators of household production or storage (see graph 21; p.62).

(B) House / Farmstead

This sub-class is mentioned within three projects, leading to a total of three examples within the analysis. All of these have defined size-classes, with < 1,000 m² as the main size-range (see graph 8; p.55). The material classes are more difficult to analyse, here only two of them have defined material assemblages (see graph 15; p.59). The primary material of the scatters seems to be building material (tiles), some storage wares (pithoi) and household production objects (i.e. grinding stone, loom weight and slag). On the low end of the scale this is added by some additional simple building materials (bricks).

The type seems indeed to combine features from both the house-type (domestic crafts) as well as farmsteads (storage wares as primary indicators). The scatter-size also does not provide any distinct division, as it can be either interpreted as a medium sized house or medium sized farm. Both classes will therefore be supplemented by information from this class, for instance adding domestic crafts (i.e. grinding stone, loom weight, slag) as an additional material class. In addition, the location of the building is also of importance.

(C) House / Villa

The house / villa-type is mentioned by two individual site-classifications. In contrast to most of the other types, the scatter-size indication of this class is less well defined (see graph 9; p.55). Only one of the examples indicates size: > 2,500 m², making interpretation based solely on size impossible.

The material assemblages are better defined; both examples provide evidence (see graph 16; p.59) showing a combination of building materials (tiles) and pottery (all ceramics). Although this assemblage is not identical, but only similar to the ‘(B) House / Tomb’ or ‘(C) House / Necropolis’-types, it is safe to say the type should be identified as a large house and not as a villa (as it lacks all indication of luxurious objects or building materials).

(D) Farmstead

A total of 23 classes were collected from nine different classification systems. Attema, De Haas and La Rosa (2003/2004) provided four different classes (both storage and farm sites), Di Giuseppe et al. 2002 two (a farmstead and outbuilding), Cupitò three (based on size differences: Small / Medium / Large), De Haas (2011) six (all settlement sub-classes) and Van Leusen (2009/2010) four (both farm-
steads and production areas). All the other projects provided a single class.

From the above mentioned 23 classes, slightly more than half is accompanied by a scatter-size indication (see graph 10; p.56). Although they range from $< 51 \text{ m}^2$ to $2,500 > < 7,500 \text{ m}^2$, they can be structured into two distinct groups: $100 > < 999 \text{ m}^2$ (7.5x) and $1,200 > < 2,500 \text{ m}^2$ (5.5x). Classes higher than that probably belong within the villa-group.

The evidence from the material classes is even more convincing. Twenty of the classes are defined, six times more than the undefined ones (all systems in which preserved structures are the only defined material classes, as they do not tell much about the function of the building). Main materials within the assemblages are tiles and storage / transport wares (dolia / amphorae). In addition further building materials (some systems even stress the presence of preserved structures) or coarse-wares are found (see graph 17; p.60).

Within the individual systems farmsteads are very well-defined site-types: material scatters of either $100 > < 999 \text{ m}^2$ (medium) or $1,200 > < 2,500 \text{ m}^2$ (large), primarily indicated by building materials and evidence of storage / transport (see graph 22; p.62).

**Farmstead / Villa:**
The combined farm / villa sub-class is mentioned in only one single site-classification system, namely that of Vermeulen (2012). Class-definition based on one single example is impossible, leading to a replacement of the class in one of the other site-classes. When looking at both scatter-size ($2,500 > < 4,000 \text{ m}^2$) and material assemblage: simple building material (tile / brick), preserved structures, common- / fine-wares and even concrete, the villa-class seems to be the most fitting (though other luxurious material, e.g. mosaics, are missing; see graph 11; p.56 and graph 18; p.60). It should thus probably be interpreted as a small to medium size villa.

**Villa:**
This type is the most prominent type within the analysis. A total of 33 examples from all 18 individual site-classification systems (Arthur 1991: 2x, based on location: normal vs. maritime; Mills & Rajala 2010: 2x, based on size: normal vs. large; Witcher 2012: 6x, all of different projects; Cupitò 2007: 5x, based on size; and Dyson 1978: 3x, based on size and luxury indicators).

Two-third of the examples gave insight into the definition of scatter-sizes (see graphs 12 – 13; p.56-57), subdividing them in three distinct size-groups: $1,000 > < 5,000 \text{ m}^2$ (15.5x; small), $5,000 > < 10,000 \text{ m}^2$ (4x; medium) and $> 10,000 \text{ m}^2$ (2.5x; large). From the numbers we can see that the small-type is the main type.

Almost 85% of the classes came with a defined material assemblage (see graphs 19 – 20; p.60-61), consisting of mainly building material (i.e. tiles / architectural fragments), luxury architecture (i.e. mosaic / tesserae / painted plaster) and preserved structures. Some additional material is sometimes mentioned: storage wares (i.e. amphorae / dolia), luxurious pottery (fine-ware), luxurious architecture (i.e. columns / marbles) and simple building material (stones). We can thus see a whole range of materials, both simple and luxurious goods, adding in the interpretation of the villa-type (see graph 23; p.62).
[Attachments]:

“Chapter 3: Excavation”

Part C-I:

-Excavated cases Map-
Case study location Map:

- **Type ['A']** - Projects (Red): Cases 1.1 – 2.3 ['A-I' = 1.1 – 1.5; ‘A-II’ = 2.1 – 2.3].
- **Type ['B']** - Projects (Green): Cases 3.1 – 4.1 ['B-I' = 3.1 – 3.5; ‘B-II’ = 4.1].
- **Type ['C']** - Projects (Blue): Cases 5.1 – 6.2 ['C-I' = 5.1 – 5.3; ‘C-II’ = 6.1 – 6.2].
- **Type ['D']** - Projects (Orange): Cases 7.1 – 8.2 ['D-I' = 7.1 – 7.3; ‘D-II’ = 8.1 – 8.2].
- **Type ['E']** - Projects (Pink/Purple): Cases 9.1 – 9.3 [No sub-division].
- **Type ['0']** - Projects (Grey): Cases 10.1 – 10.5 [No sub-division].
[Attachments]:

“Chapter 3: Excavation”

Part C-II-A:

-Ground-plan Typology-
**General Types**

<table>
<thead>
<tr>
<th>Type A:</th>
<th>Case-studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>[A-I]</td>
<td>[Ex-1.1]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type B:</th>
<th>Case-studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>[B-I]</td>
<td>[Ex-3.1]</td>
</tr>
<tr>
<td></td>
<td>![Diagram B-I]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>[B-II]</th>
<th>[Ex-4.1]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![Diagram B-II]</td>
</tr>
</tbody>
</table>

*Figure 3.1*: A visualisation of the main ground-plan types (A & B), in combination with the reconstructed plans of the individual cases that fall under them (for a description of the type, see Attachments Pt. II-B; pp.73-77).
<table>
<thead>
<tr>
<th>General Types</th>
<th>Case-studies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type C:</strong></td>
<td></td>
</tr>
<tr>
<td>[C-I]</td>
<td>[Ex-5.1]</td>
</tr>
<tr>
<td>[C-II]</td>
<td>[Ex-6.1]</td>
</tr>
<tr>
<td><strong>Type D:</strong></td>
<td></td>
</tr>
<tr>
<td>[D-I]</td>
<td>[Ex-7.1]</td>
</tr>
<tr>
<td>[D-II]</td>
<td>[Ex-8.1.1-4]</td>
</tr>
</tbody>
</table>

**Figure 3.2:** A visualisation of the main ground-plan types (C & D), in combination with the reconstructed plans of the individual cases that fall under them (for a description of the type, see Attachments Pt. II-B; pp.73-77).
### Table 22

<table>
<thead>
<tr>
<th>Main-Type</th>
<th>Sub-Type</th>
<th>Amount</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A-I</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>A-II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>B-I</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>B-II</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>C-I</td>
<td>3</td>
<td>4,5</td>
</tr>
<tr>
<td></td>
<td>C-II</td>
<td>1,5</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>D-I</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>D-II</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>E</td>
<td>3,5</td>
<td>3,5</td>
</tr>
<tr>
<td>[0]</td>
<td>[0]</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

*Figure 3.3:* A visualisation of the main ground-plan types (E & [0]), in combination with the reconstructed plans of the individual cases that fall under them (for a description of the type, see Attachments Pt. II-B; pp.73-77).
“Chapter 3: Excavation”

Part C-II-B:

-Ground-plan Typology: Text-
Introduction

This part of the attachments will discuss the generalised new site-typology, based primarily on a visual examination of the excavated examples’ ground plans. The plans were carefully redrawn from the previously published source publications (even though they are schematically presented), in order to provide uniformity in the documentation (see Attachments Pt. III - ‘Case-studies: Descriptions’; pp.78-108). In total, the personalised typology included six main ground plan-types (A - B), and up to eight sub-types. Each building-type will be discussed in detail below, providing definitive type-definitions and confronti where possible. For a visualisation of the typology, see Attachments Pt. II-A – ‘Ground-plan typology’; pp.69-72.

The new site-types represent a hierarchical seriation, ranging from simple to complex building-types. It takes into account building-aspects like: general building shape, the included number of rooms and building dimensions. In some cases, the site-definitions also include the presence of certain type-specific architectural elements (e.g. internal courtyards or centralised hallways).

**Type A:**

Included within this type are the small scale (10 x 15 m² / 0 - 250 m²) rural buildings. They are rectangular (or semi-square) in shape, with only a select number of rooms (ranging from 1 – 5x). The cases included in this type can be subdivided into two sub-classes, based on a difference in the internal sub-division of rooms (directly related to a small difference in overall size of the building). **Type A-I** includes the most basic rural buildings within this typology. They are the smallest buildings included in the data-set (10 x 10 or 10 x 20 m² / 0 - 200 m²), consisting of just one or two small rooms (i.e. cells). The rooms themselves are quite small in scale, without any evidence that they were further subdivided into smaller rooms. Generally the complete complex is rectangular (or semi-square) in shape, with its entrance located at the short side of the building. In this setup, the building-type is comparable to the single-cell buildings included in van ‘t Lindenhout’s doctorate thesis (2010, 153).

Like the first sub-type, **type A-II** is also quite small (10 x 15 m² / 100 - 250 m²) in size, although it has a slightly bigger ground plan than its’ A-I counterpart. This is also apparent from the higher number of rooms and subdivisions: 4 - 5x. As a whole, the building is rectangular in shape. 62

---

62 Some of the examples included in the dataset show additional side-rooms, located at one of the long-sides of the main room.

**Type B:**

In addition to the simple buildings discussed in type A, more complex examples were also present among the case-studies. This second type consists of small to medium sized (20 x 25 m² / 0 - 350 or 650 - 800 m²), and include an additional architectural feature as primary indicator. They are complemented by a small adjacent courtyard (of limited surface-size). This open area is enclosed by a series of rooms, arranged in ‘wings’63 (i.e. alae; Terrenato 2001, 7) encompassing the courtyard (probably taking the shape of roofed porticoes64). As this central area connects all the rooms within the complex to each other, it can be seen as the focal-point of the complex. The number of rooms included within the building is however still quite limited (app. 4 - 7 rooms), arranged in a L-shaped (or rectangular) ground plan.

A sub-division is made between the cases based on the placement of the courtyard in relationship to the rooms of the building.65 Within **type B-I** the complex is arranged in an L-shaped ground plan, in which a walled courtyard is encompassed by the two rows of rooms (app. 2 - 3 rooms per wing). The building itself is small to medium sized (20 x 20 m² / 0 - 800 m²), consisting of a limited number of rooms (4 – 5x; comparable to both the A-types). In layout, this

---

63 ‘Winged houses’ can also be found in the typology of van ‘t Lindenhout (2010, 74).


65 Correlated to the number of wings and encompassed rooms.

74
sub-type of buildings shows resemblance to that of a winged corridor villa (Darvill 2008, 607). In these villae a central corridor or veranda runs alongside the front of the building, providing access to all other rooms, linking a pair of flanked wings (i.e. alae) on either end.

Several confronti for this type can be found, most of them included within comparative studies on examples dating to the late Archaic and Republican period. Sharing the most resemblance to the type B-I was the complete example excavated at Torrino (southern Lazio), area 20.65 This building, interpreted by the original researchers as an ‘edificio con cortile porticato’ (i.e. a farmstead with porticoed courtyard) encompassed an area of about 25 m², and was dated to the middle Republican period (IV – III century B.C.). A second (though unfortunately incomplete) example comes from Ficana, zone 5a.67 This ‘edificio residenziale’ (i.e. Farm- / homestead) encompassed about 72 m², and was dated to the second half of the VII century B.C. (and can possibly be seen as a very early example of this building type). However incomplete, this example shows the similar L-shaped ground plan as the examples provided within the dataset. A final, though very famous example can be found at the ‘Auditorium Flaminio’.68 The first phase of this complex shows some distinct resemblance to the here defined B-I type. This example shows a central courtyard (A.1) that is flanked by a series of alae (A: A.2 - A.5; B: A.5 - A.8; C: A.9 - A.10). It encompasses about 300 m², and is dated to 550 - 500 B.C. As the complex develops into an imperial villa at a later date, the building slowly becomes more complex in its setup. This second phase will be seen as a confronto for the later discussed E-type.

The second sub-type, Type B-II, is a bit larger than its sister-class. They are medium in size (10 x 30 m² / 300 - 350 m²), consisting of a single wing of rooms with adjacent

courtyard. It includes a larger number of rooms than its sister-class B-I: 7x rooms instead of 4 - 5x.70 This difference in setup also leads to a rectangular (elongated), rather than L-shaped complex.

A confronto for this sub-type can be found at Acqua Acetosa Laurentina, farmstead V.1.71 This building, approximately 120 m² in size, was dated to the end of the VI – beginning of the V century B.C. (i.e. late Archaic period). Although the original publication shows the building as having a quite open character, similar to that of type B-II, the reconstruction by Nijboer (2004) closes off the courtyard at the northern end with a series of possible sheds or open stables. This aspect questions the sites’ resemblance to that of the B-II type, and should be investigated with further confronti (which have unfortunately not be found as of yet).

Type C:
The C-type of this typology is comprised of medium sized (15 x 20 m² / 150 - 350 m²) rural buildings, with a rectangular (or square) ground plan. A central feature within the complex is the (roofed) hall-way in the middle of the complex. Alongside this feature all other rooms (4 - 10x) within the building are placed, making it the focus-point of the complex. Although most of the excavated examples encompassed by this main type follow a seemingly strict ground plan, some do deviate from the general building-layout. A sub-division can thus be made into two distinct groups, primarily based on the later incorporation of the building into a much larger complex.

Type C-I consists of medium sized (15 x 20 m² / 300 - 350 m²), rectangular buildings. The central hallway (of which it is not certain if it was roofed) can be seen as the most prominent aspect of the class, and links almost all the rooms (9 - 10 rooms) within the building. In general this type of building shows resemblance to ‘Aisled Houses’, otherwise also called ‘Aisled Villae’. This class shows a simple rectangular building, which was divided into a nave and

66 The example was included within the comparative study of Cifani (2008, 205), but was originally published in Bedini (1984).
67 Published in Cifani (2008, 210), with additional information in Roma (1981b).
69 The interpretation of this area as an enclosure for animals or hortus, was mentioned in Cifani (2008, 188).
70 This also includes more privately placed rooms (including more secluded, harder to access, rooms).
two flanking aisles. These aisles are linked to each other by lines of timber roof supports (sometimes divided by internal partitions). Based on the definition provided by Darvill (2008, p.6) some of the ailed houses are interpreted to have specific agricultural or industrial functions, rather than a simple domestic use. In this interpretation the above mentioned building is quite similar to the farmsteads included in type C-I.

The second sub-type, C-II, has a quite similar layout. In these medium to large scale (10 x 15 m² / 150 - 200 m²) rural buildings, which are rectangular in shape, the same centralised (possibly roofed) hallway is apparent. The difference should however be sought in the way these rooms were incorporated within a much larger courtyard in a later date (even though the buildings themselves are much smaller than the C-II examples). Although the same original setup is still there, additional rooms are added to the complex.

**Type D:**
The general feature within this third main-type is an open courtyard which, as hypothesised by Rossiter (1978, 18), to some extent separates the domestic and agricultural quarters of the farmstead. Buildings within this group are of medium to large scale (25 x 40 m² / 500 - 700 m² or 1,000 – 2,500 m²), and mainly rectangular (or square) in shape. The centralised courtyard (i.e. atrium) was unroofed, at least in the middle, and sometimes accompanied by a roofed portico around all sides. All other rooms within the complex (10 - 30’x) seem to be placed all around the centralised courtyard, having their entrances connected mainly to this feature. Within my building typology, I distinguish between two sub-types: cases with only the centralised courtyard (type D-I) and cases with both a centralised and secondary courtyard on one of the outer sides of the building (type D-II).  

**Type D-I** consists of medium sized (25 x 30 m² / 200 – 1,200 m²) buildings, with a centralized atrium. This courtyard provides access to nearly all other rooms (10 - 20x) within the complex. The layout of the complex shows a quite private setup of the individual rooms, some having a very secluded nature. The building itself is generally rectangular (or square) in shape. Confronti for this sub-group can be found within the ‘Domus’-type houses on the Palatine, in Rome (Domus #1 & #2). These buildings show a similar layout, with centralised atrium and surrounding rooms (the division of rooms at the northern end might differ however). In total they encompass an area of approximately 540 m², and can be dated to the Archaic period.

**Type D-II** is virtually identical to the main type, but has a secondary feature: an additional courtyard located on one of the outer (longitudinal) sides of the building. A delimiting wall around this courtyard (in some cases interpreted as a hortus) is connected to the outer walls of the building, making it still interpretable as one building. The building in total is larger (30 x 50 m² / 1,000 – 2,500 m²) than the D-I type, rectangular in shape, and consisting of 10 - 30' rooms.

Both on general layout and other secondary features, the buildings belonging to this type show resemblance to that of courtyard villae (or courtyard houses). This type of building is characterised by a central rectangular courtyard, with a series of rooms on at least one side (and sometimes on all four sides). On the sides that are not covered by a set of rooms, the limit is marked by an outer wall. Excavated examples have shown that some courtyard villae have developed out of earlier winged corridor villae, through the addition of extra rooms or alae. Darvill (2008, 112) described that these courtyard villae were amongst the grandest villae and were presumably occupied by the more wealthy landowners within the empire. The farm-

---

72 An atrium = “Literally, the ‘place made black by the smoke’, but more generally used to refer to a small court or hall, open to the sky, sometimes colonnaded with four or more columns supporting the roof, and rooms opening on to the colonnade. In some Roman examples there is a central pond or basin to collect rainwater.” (Darvill 2008, 30).

73 In this description, the D-II sub-type is virtually identical to the main type, but has a secondary feature: an additional courtyard located on one of the outer (longitudinal) sides of the building.

steads belonging to the D-II type could well have been predecessors of these later, wealthier courtyard villae. Confronti for this type can again be found on the Palatine, in the domus-type houses (Domus #3 & #4). These buildings show a similar layout, with centralised atrium and surrounding rooms, and have the additional courtyard placed either at the side or at the top of the building. They encompass an area of approximately 900 m², and can be dated to the late 6th century B.C.

**Type E:**
This fifth type can be seen as the true, large scale villae-complexes (40 x 45 m² / 2,000 – 3,600 m²) we know from history books: vast areas of rooms, complete with centralised- and additional (outer) courtyards. Sometimes with identifiable (tool)sheds, outhouses and production rooms. They are complete with centralised- and additional courtyards, additional sheds or outhouses, and production rooms (in total either 8 – 10 or 40 – 41 rooms). The complex is comprised of different sectors. Although most examples share a generalised architectural ground plan, in which two main nuclei of rooms at juxtaposed positions create a combination between residential area and production centre (a functional differentiation), some sites seem to have a much looser arrangement. In these examples the scattered remains within the excavation area suggest a number of individual buildings spread over a much wider (enclosed) courtyard (Rossiter 1978, 33). The earlier proposed division between residential- and production area is still maintained in both cases.

A confronto for these examples can be found in the second phase of the earlier mentioned ‘Villa at the Auditorium’. During this phase, the building has grown out to a much larger complex, encompassing more rooms and a larger area. The courtyard has now moved to an-

other, larger area: A.4. Where it is again flanked by a series of alae (A: A.1 – A.3; B: A.4c - A.4d). The functional differentiation is also quite apparent: the northern part functions as a residential area, whilst the southern part is used for production purposes. The complex is about 700 m² in size and can be dated to the 500 - 350 B.C.

**Type ‘[0]’:**
Truthfully, this group of examples should not really be seen as an individual site-type based on the generalised ground plan of the included examples. It is simply a group that encompasses all the unidentifiable complexes, which were too heavily damaged by post-deposition processes (or unavailable data due to only partial excavation practices) to provide enough information on ground plan identification. Although the ground plans themselves could not really be used in the comparison, their data on material remains and interpretative frameworks was. Only through including a “rest”-group (of these unclassified examples), could this additional data be incorporated in the investigation.

---

76 An example of this “fragmented” villa-type, which is not included in this site-catalogue, can be seen at the Villa Magna near Anagni (Campagna; Rossiter 1978, 33: Cat. 40. Fig. 10).
77 Mentioned in Cifani (2008, 188), Terrenato (2001), and originally published in Carandini et al. (2007).
[Attachments]:

“Chapter 3: Excavation”

Part C-III:
-Introduction of the incorporated projects-
Introduction of the Project-descriptions:

This part of the attachments will discuss the excavated farmsteads and villae that have been included as case-studies within this part of the chapter, as they form the base of the analysis. The projects will be discussed in accordance with the system and observable site-characteristics derived from van 't Lindenhout's work, alongside aspects that were deemed important after an initial visual inspection of the series of ground plans (already discussed in the main text of this thesis). By discussing and scrutinising the different excavation reports and project publications encompassed by the case-studies, and by combining them with the underlying methodological questions related to them, the different site-types can be truly compared (based on their sub-surface data-set).

The project descriptions placed below consist of a short synopsis of mainly the most relevant information derived from the source-publications, including: an introduction of the excavated area, the aims of the project, its methodological background, the excavations results, the material encountered on site, a site-interpretation given by the excavator, and the personal comments of the publication’s author (both main conclusions and reason behind the intended publication). Specifically the aims of the excavation in relation to the interpretation of the site seem to be of great importance: an aspect of methodological biases which has already been attested in the survey-chapter.

This more complete overview of the excavated cases includes the ground plans of the excavated cases. The plans themselves were carefully redrawn from the previously published source publication, in order to provide uniformity in the documentation. For a complete overview of the geographical dispersion of the included case-studies (Italian peninsula and isles), a topographical map was also included within another part of the attachments (see Attachments Pt. I – Excavated cases map; p.68).

The search for excavated cases:

The included excavated cases came from a variety of sources. In order to compile a robust dataset to us in my analysis, a thorough search for published case-studies was therefore undertaken. All reports that were deemed useful were collected and skimmed through. This initial search included sources like the Journal of Fasti-Online77, Notizie Degli Scavi di Antichità78, the Papers of the British School at Rome and Lazio e Sabina (vol. IV). After the straightforward inventory of the available data, useful sites and publications were chosen for the true intercomparison, which included well published, rural sites, belonging mainly to the (late) Republican and early Imperial periods. Besides the general discussion of the excavation and its results, special attention was given to the way of investigation, the interpretation behind the material, etc. All information was collected in one general Microsoft Access Database (devised especially for this project’s chapter).

To provide the dataset with additional information and detailed case-studies (with typological backgrounds), specific literary sources were included: e.g. farmsteads published in the Forma Italiae series (Muzzioli 1970 (Vol. 8) and Pala 1976 (Vol. 12), Volpe’s publication on the typology of Archaic and Republican farmsteads (1990) and J.J. Rossiter’s book on Roman Farm Buildings, listing different examples and their typological relations (1978). Together, this search through published sources led to a data-set of 34 excavated cases.

77 Fasti-Online (http://www.fastionline.org).
The Project-list:
In total, thirty-four individual excavated examples from ten different (administrative) regions were selected (see table 23). They represent both complete scientific excavation projects (by universities), and partial rescue excavations (by the Soprintendenza). Through analysis of these cases, we can get particular insight into the material assemblages and ground plans connected to the farmstead and villa site-classes. In addition, these show the influence of excavation methodologies on site publication and interpretation.

<table>
<thead>
<tr>
<th>Project</th>
<th>Project Name</th>
<th>Region</th>
<th>Author</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Ex-1.1]</td>
<td>‘Monte Forco - Site 154’</td>
<td>(Ager Capena), Lazio</td>
<td>JONES (1963)</td>
<td>[A-I]</td>
</tr>
<tr>
<td>[Ex-1.2]</td>
<td>‘Anguillara Sabazia’</td>
<td>(Rome), Lazio</td>
<td>DI MATTEO (2005)</td>
<td>[A-I]</td>
</tr>
<tr>
<td>[Ex-1.3]</td>
<td>‘Grotte S. Stefano (Building A)’</td>
<td>(Viterbo), Lazio</td>
<td>COLONNA (1975)</td>
<td>[A-I]</td>
</tr>
<tr>
<td>[Ex-1.4]</td>
<td>‘Grotte S. Stefano (Building B)’</td>
<td>(Viterbo), Lazio</td>
<td>COLONNA (1975)</td>
<td>[A-I]</td>
</tr>
<tr>
<td>[Ex-1.5]</td>
<td>‘Monte Cucula’</td>
<td>(Capena), Lazio</td>
<td>JONES (1962)</td>
<td>[A-I]</td>
</tr>
<tr>
<td>[Ex-2.1]</td>
<td>‘San Casciano in Val di Pesa’</td>
<td>(Ponte Rotto), Toscana</td>
<td>ALDERIGHI &amp; PITTARI (2011)</td>
<td>[A-II]</td>
</tr>
<tr>
<td>[Ex-2.3]</td>
<td>‘Tor Bella Monaca’</td>
<td>(Rome), Lazio</td>
<td>WIDRIG (1983)</td>
<td>[A-II]</td>
</tr>
<tr>
<td>[Ex-3.1]</td>
<td>‘Aguglia’</td>
<td>(Mirchiridazzu), Sicilia</td>
<td>PELAGATTI (1970)</td>
<td>[B-I]</td>
</tr>
<tr>
<td>[Ex-3.2]</td>
<td>‘Nocelli’</td>
<td>(Lucera), Puglia</td>
<td>VOLPE (1990)</td>
<td>[B-I]</td>
</tr>
<tr>
<td>[Ex-3.3]</td>
<td>‘Colle Faustiniano - Casale Lauri’</td>
<td>(Tivoli), Lazio</td>
<td>MUZZIOLI (1970)</td>
<td>[B-I]</td>
</tr>
<tr>
<td>[Ex-3.5]</td>
<td>‘Posto’</td>
<td>(Francolise), Campania</td>
<td>ROSSITER (1978)</td>
<td>[B-I]</td>
</tr>
<tr>
<td>[Ex-4.1]</td>
<td>‘Metana - Le Piano’</td>
<td>(Rome), Lazio</td>
<td>PALA (1976)</td>
<td>[B-II]</td>
</tr>
<tr>
<td>[Ex-5.1]</td>
<td>‘Sambucu’</td>
<td>(Blera), Lazio</td>
<td>ROSSITER (1978)</td>
<td>[C-I]</td>
</tr>
<tr>
<td>[Ex-5.2]</td>
<td>‘Posta Crusta’</td>
<td>(Foggia), Puglia</td>
<td>DE BOE (1975)</td>
<td>[C-I]</td>
</tr>
<tr>
<td>[Ex-5.3]</td>
<td>‘Ager Lunensis - Site 9’</td>
<td>(Ortonovo), Liguria</td>
<td>DELANO SMITH et al. (1986)</td>
<td>[C-I]</td>
</tr>
<tr>
<td>[Ex-6.1]</td>
<td>‘Mancassarone’</td>
<td>(Bagni), Basilicata</td>
<td>VOLPE (1990)</td>
<td>[C-II]</td>
</tr>
<tr>
<td>[Ex-6.2]</td>
<td>‘Leonessa’</td>
<td>(Melfi), Lazio</td>
<td>VOLPE (1990)</td>
<td>[C-II]</td>
</tr>
<tr>
<td>[Ex-7.2]</td>
<td>‘Selvasecca’</td>
<td>(Blera), Lazio</td>
<td>ANDRÉN (1969) &amp; ROSSITER (1978)</td>
<td>[D-I]</td>
</tr>
<tr>
<td>[Ex-7.3]</td>
<td>‘Schito-Colle d’Arte’</td>
<td>(Sora), Lazio</td>
<td>CERQUA (2007)</td>
<td>[D-I]</td>
</tr>
<tr>
<td>[Ex-8.1.1-4]</td>
<td>‘Tor Bella Monaca’</td>
<td>(Rome), Lazio</td>
<td>WIDRIG (1983)</td>
<td>[D-II]</td>
</tr>
<tr>
<td>[Ex-8.2]</td>
<td>‘Boscoreale Giuliana’</td>
<td>(Boscoreale), Campania</td>
<td>ROSSITER (1978)</td>
<td>[D-II]</td>
</tr>
<tr>
<td>[Ex-9.1]</td>
<td>‘San Rocco’</td>
<td>(Francolise), Campania</td>
<td>ROSSITER (1978)</td>
<td>[E]</td>
</tr>
<tr>
<td>[Ex-9.3]</td>
<td>‘Le Piane’</td>
<td>(Larino), Molise</td>
<td>MUCCILLI (2011)</td>
<td>[E]</td>
</tr>
<tr>
<td>[Ex-10.1]</td>
<td>‘Settala’</td>
<td>(Ranola), Lombardia</td>
<td>ZOPFI et al. (2009)</td>
<td>[O]</td>
</tr>
<tr>
<td>[Ex-10.2]</td>
<td>‘Orbetella’</td>
<td>(Grosseto), Toscana</td>
<td>MAEZKE (1958)</td>
<td>[0]</td>
</tr>
<tr>
<td>[Ex-10.3]</td>
<td>‘Le Fosse’</td>
<td>(Macerata), Marche</td>
<td>MAZZOLANI (1969)</td>
<td>[0]</td>
</tr>
<tr>
<td>[Ex-10.4]</td>
<td>‘Contignano’</td>
<td>(Radicofani), Toscana</td>
<td>PALLECCHI (2008-2009)</td>
<td>[0]</td>
</tr>
</tbody>
</table>

Table 23: A table listing the selected excavated case-studies.

---

79 Number of cases per (administrative) region: Lombardy (3x), Liguria (1x), Tuscany (4x), Marche (1x), Lazio (15x), Molise (1x), Campania (3x), Apulia (2x), Basilicata (2x) and Sicily (1x).
The Project-list:

[Type A]

Small scale rural buildings (10 x 15 m² / 0 - 250 m²), of a rectangular (or semi-square) shape. They consist of only a select number of rooms, ranging from 1 – 5x. In total, eight examples of this type were included within the site-catalogue: five belonging to type A-I and three to A-II.

(*) [Type A-I]

Small scale rural buildings (10 x 10 or 10 x 20 m² / 0 - 200 m²), consisting of just one or two small rooms (i.e. cells). They are generally rectangular (or semi-square) in shape. [The five examples are presented below]

[Ex-1.1]: Monte Forco - Site 154 (Ager Capenas), Lazio


The first example to be discussed is the simple farmstead at Monte Forco, belonging to the early imperial period (Late 1st century B.C.; based on finds and general layout). The small rectangular structure (10.95 x 5.10 m; 46 m² minimal; fig. 4) seems to be almost completely preserved and subdivided into one, possibly two rooms (accessibility 1) both belonging to one single construction phase. Although no direct evidence for a second storey is present in the buildings structure (e.g. internal supporting columns or beams), the thickness of the walls does provide the possibility for one. Similar rural buildings are depicted on wall-paintings in Pompeii (the ‘House of the Small Fountain’), which show two-storey farmhouses in which the ground floor is predominantly used for agricultural purposes (the storage of agricultural tools and stalls for farmyard animals), whilst the upper floor housed storage rooms and living quarters. A second storey within the Monte Forco case is however still a hypothesis: Rossiter (1978) seems positive of a second storey, while Jones (1963) is not convinced. As he interprets the north-eastern postholes as a lean-on shelter (providing a storage place for tools), making a second storey unnecessary.

Initially the site seemed very promising, as the area had not been ploughed mechanically until 1956. After opening up the excavation pit however, this hope was partially shattered. Even the few years of agricultural activity had affected the archaeological material immensely: part of the southern end of the building had been swept away almost completely, making it impossible to reconstruct the buildings’ floor plan over its entire length (though function and general layout could still be interpreted). One advantage from the ploughing activity was the high variety of pottery collected from the surface, partially leading to the excavation of the site.

A final remark can be made on the excavation of the site itself. The researchers at Monte Forco stressed the fact that their excavation of the site was limited to suit the character of the site, as it “lies at the lowest end of the Roman archaeological scale” (Jones 1963, 149). Biases like these unfortunately hold back the research into such smaller rural sites, leading to the exact same problem I address in this thesis (i.e. the lack of properly discussed site-classifications for this site-type). Only when more of such sites are investigated, on a much larger scale, can general conclusions be drawn.

![Figure 4](image-url): The excavated ground plan of case-study [Ex-1.1]. Red represents the walls of the building, blue the definable architectural features.
In November of 2005 an excavation was undertaken at Anguillara Sabazia, coordinated by Dr. Caruso (the Archaeological Superintendent of Southern Etruria). Inspection of the area was necessary as the site was intended for the placement of a new block of residential houses. The project was intended to identify the position, extent and function of the ancient building remains uncovered below ground.

The excavated building, a farmstead (fattoria), had an elongated rectangular shape (28 x 6.5 m; 124 m²; fig. 5) and was orientated from East to West. It consisted of a long single room with its entrance located on the eastern side. Although the outline of the building was visible on account of the outer walls (consisting of Opus Quadratum), internal partition-walls were not visible. The building’s ground plan is somewhat peculiar, consisting of a single elongated hall. Although the original excavators interpreted it as a small farmstead, other interpretations are just as fitting: a possible ‘stoa-type’ building, or processing facility (with basins) might not be a far-fetched idea.

Three habitation phases could be determined on-site: Phase (0), a pre-building phase belonging to the Archaic / Classical period and based solely on a handful of bucchero sherds. Phase (1), the initial building phase, featuring the construction of the complex in the mid-Republic (characterized by the Opus Quadratum walls with tufa / basalt and Vernice Nera finds). And Phase (2), a secondary construction phase during which certain architectural features were added (the Opus Quadratum floor in the eastern rooms and a small square room (5 x 3 m) to the North-East), dated on the basis of sherds uncovered within the new cement walls to the early Imperial period.

The building was interpreted by the researchers as a rural farmstead suitable for a nucleated family, predating the villacatonian ‘fattoria italica’-type. It testifies the policy of the Romans implemented in the area after they conquered parts of Southern Etruria: filling the landscape with a rural Roman population to discourage the uprising of the opposing Etruscans.

Most of the archaeological finds (bucchero, vernice nera, sigillata italica, ceramic commune, embrici, tegole) were found in secondary positions, probably displaced by the deep ploughing activities in the area. Together with large scale construction activities, this lead to the fact that only the foundation walls of the building seem to have remained intact, which made a reconstruction of functions per individual room almost impossible. Very surprising however was the lack of archaeological traces for fireplaces (‘focolari’) or large dolia within the complex, items which would underline the presumed function of the complex.

Figure 5: The excavated ground plan of case-study [Ex-1.2]. Red represents the walls of the building.
At the location of Grotte S. Stefano two individual structures were uncovered below an old water reservoir. As no information was provided on finds or the archaeological excavation themselves, we can only use the comments and floor-plans provided by the researchers: Building A (‘[Ex-1.3]’) was rectangular / L-shaped (22.6 x 10.4 m; 178 m²; fig. 6), consisted of three rooms (accessibility 1 - 3) and was constructed of robust Opus Caementicium. Building B (‘[Ex-1.4]’) was rectangular / square in shape (12.4 x 8.3 m; 132 m² minimal; fig. 7), and consisted of 2 - 3 rooms. A covered court / terrace can possibly be reconstructed towards the Northern side of building B.

![Figure 6: The excavated ground plan of case-study [Ex-1.3]. Red represents the walls of the building.](image1)

![Figure 7: The excavated ground plan of case-study [Ex-1.4]. Red represents the walls of the building.](image2)

The last case discussed in this sub-type is the small farm located on Monte Cuculo. This (still) standing Roman structure (7.2 x 6.2 m; 40 m²; fig. 8; p.84), built of Opus Reticulatum, is rectangular in shape and consists of three adjoining rooms (accessibility 1 - 2). Dating to the 1st century A.D. this architecturally simple building probably belongs to the tower-shaped rustic houses (already mentioned in ‘[Ex-1.1]’ as possible more developed confronti). As the building was simply located and documented in the field (noting its weathered and overgrown state), without any actual excavation or ceramic-survey, further information was not provided in the publication. This also leads to the conclusion that the chronological timeframe given is solely based on the encountered architectural style and building materials used. The fact that most modern small farmsteads still occupied within the region during the exploration of the
area (1962) are still of a similar type, makes the fact that these “poor” rural Roman farmsteads have never been fully studied in detail even more saddening.

(**) [Type: A-II]

Small scale rural buildings (10 x 15 m² / 100 - 250 m²), mainly rectangular in shape. This building-type thus has a slightly bigger ground plan than its A-I counterpart, which is also visualised by the higher number of rooms: 4 - 5x. [The three examples are presented below]

[Ex-2.1] : San Casciano in Val di Pesa (Ponte Rotto), Toscana


This complex, located in Ponterotto, was disturbed by the construction of a new ‘Laika Caravans’-store. Of interest to this thesis is the Late Hellenistic Estrucan phase of the building, which in the Imperial phase grew out to a more luxurious Roman Villa Rustica.

The Late Hellenistic building (14 x 12.4 m; 174 m² minimal; fig. 9; p.85) consisted of five individual rooms or compartments (A-E; accessibility 1 - 2 / 1 - 3), linked together by central room “B”. Two distinct building / habitational phases could be defined within the rectangular complex: Phase 1 (first half 2rd century B.C.), during which all the rooms seem to have functioned as basic living quarters, and Phase 2 (second half 2nd century B.C.), in which functional use of the rooms seems to have shifted. Now, only room “A” had a distinct living quarter-function, whilst the others show storage and/or cooking functionality (Room “E”, which was porticoed) and had a distinct hearth feature.

Overall this building can be interpreted as a house of modest dimensions, full of domestic functions (e.g. food preparation), without a distinct artisan production area (despite the presence of bricks scraps and a furnace). The building seems to be inhabited for a very short period of time (chronological classification can be further refined after more detail investigation of the material).

The later building on the same location, a Roman (pars rustica) villa, looks much like a large farm with a courtyard. It was horse-shoe shaped (41 x 30 m), had three wings (alae) and dated from the Imperial Age. Located within this complex were certain rooms with specific production indicators (e.g. Room “O”, which included a tub and winepress) which include the processing and storage of agricultural products cultivated in the surrounding area. The vineyards themselves, which provided the necessary

---

---


85 Based on a combination of the uncovered ‘Terra Sigillata’ and an ‘Antoniniano’ of Emperor Aurelian (a coin from 270 - 275 A.D., located within the layer of abandonment and thus providing a ‘terminus ante quem’ for the life of the villa rustica).
natural products\textsuperscript{86}, were indicated by the rows of pebbles (placed parallel and converse) located in the vicinity of the building, which were used as drainage channels. In total the roman farmstead / villa seems to have had at least three phases of life: \textbf{Phase 1} the building of the architectural complex, \textbf{Phase 2} the creation of the courtyard and \textbf{Phase 3} the construction of compartment “D”. The Villa-phase of the complex will however not be included within the analysis, as not all the evidence and architectural elements are discussed in the source-publication.

No information was provided on the quality of the excavated material or the (almost certainly present) disturbances of the archaeological layers in the field. The only thing mentioned is the alluvial sediment that covered the archaeological material during a later phase, covering up and preserving the archaeological data. In addition, the publication provides information on a project for which almost 90% of the material has yet to be cleaned and restored (partially because of the severely fragmented state of conservation; Alderighi & Pittari 2011, 1), and should thus be seen as a “work-in-progress”).

\textsuperscript{86} The Etruscan building and Roman Villa were placed at this location because of two main reasons: \textbf{(1)} the fertile agricultural land (due to the repeated flooding of the river) and \textbf{(2)} the presence of quality clay for production of ceramics (traces: the furnace and misfired bricks).
During the construction of a high-speed rail line (between Turin - Milan) foundations of roman buildings were uncovered. The excavation was intended to determine the exact extent and function of the buildings. Unfortunately parts could not be excavated fully as they exceeded the trench’s limits (the buildings continued beneath the modern highway).

Three areas of attention could be distinguished:

**Area 1** (‘[Ex-7.4]’; type D-I) located within the central sector, which contained a complex and structured building. It had four distinct building phases, with the initial building of a square / rectangular floor plan (at least 16.6 x 15 m; 249 m² minimal; fig. 10), continuing towards the south (which could not be excavated) and a secondary phase, during which the floor was raised and certain rooms were further subdivided (Rooms “C”, “D”, “F”, “G”). Both the third and fourth phase are characterised by further changes in wall placement and reconfiguration of individual rooms. The complete complex had a total of at least 13 rooms (accessibility 1 - 5), without any evidence for a internal or external courtyard. Rooms “F” and “G” were paved, probably intended for food preparation and distribution.

**Area 2** (‘[Ex-2.2]’; type A-II; fig. 11) located in the western sector, contains the plan of another rectangular (or square shaped) building, though somewhat simpler and unstructured than the one mentioned above. This building (at least 13.6 x 9.4 m; 136 m² minimal) again continued beyond the limits of the excavation pit, originally having additional rooms toward the southern side (5 plus rooms, with an accessibility of 1 - 2 / 1 - 3). Walls of (river) pebbles make up the first habitation phase, with restructuring, broadening of walls and the raising of the outer floor-level taking place during the second phase. Additional restructuring and the placement of rubbish pits took place in the third phase.

**Area 3** within the eastern sector, shows a series of drainage channels and post-holes which could be combined to form (animal herding) fences or a simple storeroom for work-tools or perishable goods.

The buildings in the complex were dated to the period from the first century B.C. till fifth century A.D. This chronology was based on a combination of coins and pottery (terra sigillata, thin impasto chiaro) found in the excavated contexts. Functional interpretation of the complex is however very limited, as continued deep ploughing, as well as the placement of modern irrigation channels disturbed much of the archaeological evidence. This led to a grave
lack of (functional identifiable and chronological interpretable) contexts in the complex. Stratigraphy was complicated by the ancient changes in floor-level, the complete floor-plan is not reconstructable due to the limited size of the excavation trench. It is therefore questionable as to whether this complex should be placed under the denominator villa rustica, especially as the examples from the Roman Rho-Lucernate area show huge differences in structural complexity and functionality. The investigators themselves also mentioned that “in this case it is perhaps more appropriate to speak of a farmstead (rectangular / square shaped with irregularly placed rooms), than of a symmetrically shaped villa.” (Zopfi & La Spada 2006, 10).

**[Ex-2.3] (Ex-8.1.1-4): Tor Bella Monaca (Rome), Lazio**


The sites uncovered during this excavation (1976-1980) were located on the ancient Via Gabina, approximately fourteen kilometres from the centre of Rome. The area is part of the Tenuta di Tor Angela, located on a present day farmyard. Further information on the reason behind the start of the excavation was not provided within the publication.

The site of interest for my thesis is **Site nr.11**, interpreted as a villa rustica. The complex can be divided into three distinct phase-groups (with their own sub-groups).

**Phase 1** is the Republican period, sub-divided into 1A, B and C. **Phase 1A** (‘[Ex-2.3]’; type A-II) can be dated to the 1st half of the 3rd century B.C., in which a set of connected rooms (in Opus Quadratum) make up a rectangular shaped building (at least 16.2 x 13.8 m; 224 m² minimal; fig. 12), consisting of four rooms (accessibility 1 - 2).

**Phase 1B** (‘[Ex-8.1.1]’; D-II) belongs to the mid 3rd century B.C., in which the building incorporates the earlier mentioned rooms in a much bigger complex, with a U-shaped floor plan and a enclosed courtyard (44.2 x 27.3 m; 1140 m²; fig. 13.1). The building is divided functionally into two units: the living quarters (at the base of the U-shape) and work / storage rooms (in the two arms of the complex). During this phase the complex has a total of twelve rooms (accessibility 1 - 3). The new walls are made up of local red tufa blocks in Opus Quadratum.

---

**Figure 12:** The excavated ground plan of case-study [Ex-2.3]. Red represents the walls of the building.

**Figure 13.1:** The excavated ground plan of case-study [Ex-8.1.1]. Red represents the walls of the building.

87 “It is likely that the long east-west room was a single, double storied space, while the rooms north of it had a second floor (fig. 7).” (Widrig 1983, 144).
Phase 1C (‘[Ex-8.1.2]’; D-II) is the last of the Republican Period, in which the complex is further complemented by rooms at the western flank of the courtyard (45.2 x 27.4 m; 1284 m²; fig. 13.2), together with the addition of a shed (hortus). The complex now encompasses a total of 15-plus rooms (accessibility 1 - 4).

Phase 2 belongs to the Imperial Period, again subdivided into three phases: 2A, B and C. Phase 2A (‘[Ex-8.1.3]’; D-II) shows major rebuilding activity (50.7 x 30.4 m; 1428 m²; fig. 13.3), significantly altering the architectural character and function of the villa (early Imperial – mid-Imperial).

Of major importance was the restructuring of the open courtyard to an enclosed atrium. The entrance was resituated on the western side, complete with columned portico on both sides. All former work- and storage rooms were turned into living quarters, transforming it to a suburban residence of some distinction. Phases 2B and 2C (‘[Ex-8.1.4]’; D-II) can be discussed together, as they are really a series of interlinked changes. The East-Western axis of the villa was expanded by an insertion of a bath suite (with secondary floor-level), the construction of a large pool (‘piscina’) in the hortus, a remodelling of the large rooms in the complex (divided in room and ante-room) and a new retaining wall surrounding the entire complex (48.4 x 35.2 m; 2501 m²; fig. 13.4). The phase is further characterized by the conversion of the eastern part of the villa to rooms with an industrial activity, specifically the introduction of olive press (North) and storage rooms (South). The lack of living quarters further underline the industrial function of the complex in this period.\footnote{In even later phases, towards the late antique period, the villa rustica is shaped into an ‘horreum’ (3rd century A.D.).}

Fig. 13.3: The excavated ground plan of case-study [Ex-8.1.3]. Red represents the walls of the building.

88 Masonry technique changed to ‘Opus Caementicum’ and ‘Opus Reticulatum’.

Fig. 13.4: The excavated ground plan of case-study [Ex-8.1.4]. Red represents the walls of the building, blue the definable architectural features.

\footnote{‘It may be that the olives for pressing, during phase 2B and 2C, came from nearby farms rather than from groves around the villa.’ (Wildrig 1983, 154).}
A small to medium sized rural buildings (20 x 25 m² / 0 - 350 or 650 - 800 m²), with an adjacent (small) courtyard. Enclosed by the wings of rooms (i.e. alae) of the L-shaped building. As this central area connects all the rooms within the complex to each other, it can be seen as the focal-point of the complex. The number of rooms included within the building is however still quite limited (app. 4 – 7 rooms). In total, seven examples of this type were included within the site-catalogue: six belonging to type B-I and one single example to B-II.

(*) [Type: B-I]
Small to medium sized rural buildings (20 x 20 m² / 0 - 800 m²), consisting of a limited number of rooms (4 – 5x; comparable to both the A-types). The rooms encompassed by the building are generally placed within an L-shaped ground plan, in which a walled courtyard is encompassed by the two rows of rooms (app. 2 - 3 rooms per wing). [The six examples are presented below]

[Ex-3.1]: Aguglia (Mirchiridazzu), Sicilia


During excavations at Aguglia (between ancient Netum and Akrai) in 1960-1962 numerous features representing ancient activities were uncovered. One of these was the late-hellenistic farmstead discussed here, in the form of a simple L-shaped building (20.5 x 18 m; 279 m²; fig. 14) with two perpendicular placed wings, surrounding a semi-triangular courtyard. The northern wing is divided into three separate rooms (accessibility 1 - 2), while the smaller southern wing consists of a pillared portico (Room “D”). The ample amount of (roof)tiles in the rooms suggests a roof system spanning the entire complex (with exception of the courtyard). Unfortunately other material classes are underrepresented in the rooms, making functional interpretation per room impossible. The material collected from the series of test-trenches however does suggest an agricultural function for the entire complex, combining household products (plates, cups, etc) with more production driven activities (pithos, anfora and strainer). Although the ground-plan of the building could be reconstructed over the full length, some of the individual walls show grave signs of disturbance (modern building processes and deep ploughing), having swept away part of the outer walls of the courtyard and Room “A”.

Figure 14: The excavated ground plan of case-study [Ex-3.1]. Red represents the walls of the building, blue the definable architectural features.
A farmstead (‘fattoria’) excavated at Nocelli (app. 8 km south-east of Lucera) by a British team under the supervision of B. Jones (1964). The building had an elongated rectangular shape (at least 15 x 10 m; 167 m² surface-span minimum; fig. 15) with probably the same room layout as the above mentioned structure (‘[Ex-3.1]’), but flipped 180 degrees. The entrance with roofed veranda was now placed at the northern wing instead of the southern one (as was the case with ‘[Ex-3.1]’). This again leads to a courtyard at the south-western end of the complex, of which the exact shape and dimensions could not be reconstructed. Though incomplete, the building consisted of at least 4 - 5 rooms (accessibility 1 - 2).

The complex was dated to the late Republican – early Imperial period, based on a coin, the hydraulic system and excavated vernice nera sherds. Three distinct building phases could also be reconstructed: **Phase 1**, during which the building was constructed and farmers permanently lived on the site. **Phase 2**, during which some renovations were made to the floor and walls. And **phase 3**, during which the building gets a more production-centred function, specialising in oil / wine production. On account of this it becomes improbable that the farmers still lived within the building itself or on site. It could even be thought that in this later phase the building itself becomes part of a much large villa-complex, functioning as the main production centre. Further evidence for such a claim was however not uncovered during the (somewhat limited) excavation⁹⁰.

---

⁹⁰ Reasons for the limited area of the excavation pit were unfortunately not provided within the source-publication.
**[Ex-3.3]: Colle Faustiniano / Casale Lauri (Tivoli), Lazio**


An L-shaped building (18.6 x 9.8 m; 130 m² minimal; fig. 16), completely uncovered during an excavation at Colle Faustiniano. Belonging to the early Imperial – late Antique period, this building is made up of a series of six rooms (some directly accessible from the outside) and a possible courtyard with roofed terrace to the north. Although the researchers interpreted the complex as an ‘Antique Villa’, partially based on the rich assemblage of finds (marble blocks, columns and decorated floor systems), I personally think its architectural layout shows high resemblance to ‘[Ex-3.1]’ and ‘[Ex-1.3]’, both interpreted as more simpler Villae Rusticae. The analysis of the finds and other characteristics within the coming sub-chapter (‘material analysis’) will give more insight into this.

**[Ex-3.4]: Lucca (Florence), Toscana**


In 2005, the University of North Carolina at Asheville and New York University in Florence joined the larger ‘100 Roman Farms’-project of the Forum-UNESCO initiative in Lucca. This new project is based on earlier archaeological investigations in the area: the work done by the Gruppo Archeologico Capannorese (1988-1990) and Prof. Zecchini (2000-2002). The project had a twofold research strategy:

“seeking to piece together the disparate information generated during the previous campaigns and, at least initially, to establish the physical boundaries of the site.” (Ewel & Taylor 2010, 3).

Thus, it was focused on defining the external footprint of the building and functional reconstruction of the rural unit.

Interpreted as a Farm (‘pars rustica’ or productive area of the complex), the ‘Palazzaccio’-complex was one of the hundred plus farms excavated in the area. The building originally started out in phase one as an small rectangular building (10 x 4 m; 40 m²; fig. 17; p.92) with only four rooms, but rapidly grew in the second phase to a far larger complex of individual buildings surrounding a central courtyard (at least 15.4 x 14.6 m; 225 m² minimal). No fewer than ten rooms could be defined, probably changing its function more in line with the buildings of type-B.I. The adjoining farm-plots / agricultural lands were estimated to 180 x 180 m (25 ‘actus quadrates’).

---

91 “The unique preservation of this dense concentration of farms has permitted the area to receive protected status as a unified archaeological zone, in that the history of each settlement is crucial for the overall significance and historical development of all sites in the plain” (Ewell & Taylor 2010, 1-2).

92 Further information on the 100 Farms project can be found on: http://www.provincia.lucca.it/unesco/100fattorie.asp.

93 The ‘Palazzaccio’ seems to have a special status among the other farmsteads uncovered at the site: the site was occupied for much longer than the other excavated farmsteads, it appears to have been considerably more extensive and may have participated in a level of luxury consumption unparalleled at the other farms during some of its habitation phases. (Ewell & Taylor 2010, 3).

94 The ‘Palazzaccio’-complex: “…a structure that in its earliest Republican phase was modest in size but became increasingly complex in its layout and features over various iterations.” (Ewell & Taylor 2010, 2).
Random sampling and limited excavation in the northern part of the site had revealed various external and internal wall sections, differences from which two phases could be defined: Phase 1, visible in the construction of the East-western wall (constructed of sandstone and quartzite), and phase 2, sandstone walls with a brick/tile-mortar probably belonging to the Imperial Period (late 1st century B.C. - early 1st century A.D.). The complex seems to have undergone a major restructuring, one that was coeval with a large reworking of the city of Lucca and the countryside. The site had been occupied the second century B.C., until it was abandoned sometime in the third century A.D.

Brick vats (1.5 x 1.5 m / 1.5 x 1 m) found in the North-western part of the complex (with preliminary ceramic dates in the early first century A.D.) might indicate the processing of grapes. Further evidence for wine production is the excavated pressing-floor throughout the complex. This later phase of the building is indicated by the presence of luxury consumer goods (indicating a villa-type phase). In the fourth century A.D. the whole area (with the hundred-plus farmsteads) was covered by a thick layer of sediment (due to a flood). This event protected the archaeological material against all other disturbances. Some parts were however cut by a large deep 19th century ditch, partially running straight through the excavation area.

**Figure 17:** The excavated ground plan of case-study [Ex-3.4]. Red represents the walls of the building, blue the definable architectural features.

[Ex-3.5]: Posto (Francolise), Campania


The Posto example excavated at Francolise shows an early phase of a later much grander Roman Villa. Remaining quite simple and rustic in nature (both in design and construction), this phase consists of an open courtyard (at least 23.7 x 34.9 m; 757 m² minimal; fig. 18; p.93) around which a number of rooms are placed. Eight in total (accessibility 1 - 2) they seem to be functionally divided into three spatial groups: The northern rooms seem to have housed the living quarters of the complex⁹⁵, the western rooms probably functioned as a roofed (semi-open) stable for livestock, and the south-eastern rooms have an unknown function (though production or storage belongs to the possibilities). The courtyard itself must have been very usable as an open pen to flock the animals in.

---

⁹⁵ Although the room at the western-end of the building seem to have fulfilled a more production orientated function, as the settling tank located in it suggests wine-production.
shaped courtyard houses the courtyard functions as an addition to the house, whilst in this example the courtyard seems to be the focal point, and the rooms the additions confined in it.

The complex retained its original form until the middle of the 1st century B.C., before it was restructured and heavily enlarged. This process, which resulted in a full-scale villa-complex, might indicate a change of ownership or an increase in storage demand for the region. The landowners might have become 'bailiffs', making the farmstead function more as a storage and redistribution centre than an agricultural production one.

(**) [Type: B-II]

Medium sized rural buildings (10 x 30 m² / 300 - 350 m²), consisting of a single wing of rooms with adjacent courtyard. It includes a larger number of rooms than its sister-class B-I (7x rooms instead of 4 - 5x). This difference in setup also leads to a rectangular (elongated), rather than L-shaped complex, consisting of a single wing with adjacent courtyard. In contrast, this type has a larger number of rooms than its sister-class B-I. [The single example is presented below]

[Ex-4.1]: Metana – Le Pianelle (Rome), Lazio


An elongated rectangular building (30.2 x 10.5 m; 317 m²; fig. 19), interpreted by the researchers as a villa, partially excavated by the Soprintendenza alle Antichità (Prof. Santangelo) at Metana. The walls, which were only preserved at foundation level, indicate a series of at least thirteen rooms (accessibility between 1 - 3 / 1 - 5). The western part of the complex seems to have functioned as bath / spa-complex (complete with Calidarium), as indicated by the mosaic flooring in black-and-white tesserae. Although there is no direct evidence for an open courtyard, the porticoed hallway at the northern front of the building does seem to indicate one (like the other examples discussed within the ‘B-Type’).
[Type C]
Medium sized rural buildings (15 x 20 m$^2$ / 150 - 350 m$^2$) rural buildings, with a rectangular (or square) ground plan. Central to this type is the (roofed) hall-way in the middle of the complex. All other rooms (4 - 10x) within the building are located around this feature, making it the focus-point of the complex. In total, four examples of this type were included within the site-catalogue: three belonging to type C-I and two to C-II.

(*) [Type: C-II]
Medium sized (15 x 20 m$^2$ / 300 - 350 m$^2$) rectangular buildings, in which a central hall-way is the main feature (9 - 10 rooms).
[The three examples are presented below]

[Ex-5.1]: Sambuco (Blera), Lazio

The small late Republican farmstead / villa excavated at Sambuco consists of a rectangular building (20.8 x 16 m; 333 m$^2$; fig. 20) with al long central corridor, spanning the entire length of the complex. This, probably open roofed, feature separates the northern and southern part from each other. A functional difference can be seen within these two spatial units: the northern rooms (nr. 1 - 3) functioned as store-rooms, whilst the southern ones (nr. 7 - 9) fulfilled a more domestic role. As these three rooms provided insufficient room for the housing / lodging of a nucleated family, Rossiter (1978, 6) thought it likely that the building had a second storey spanning the entire complex. A similar arrangement of separating functional differences by use of a central corridor can be seen in the Posta Crusta building near Ordona ('Ex-5.2'; discussed below).

Room nr. 11 has a special place within the complex, as it is the only room besides the entrance hallway that is directly accessible from the outside (all other rooms have a 1 - 3 / 1 - 4 accessibility). The room is very similar to the tower-like rooms of the ‘enclosure-and-tower’-type (Rossiter 1978, 12). A defending function, as in the other examples, could however not be attributed to the room, as it seems to have to limited dimensions (only 1.22 m in width). It is therefore much more likely that room nr.11 functioned as a storage room for agricultural tools, which had to be accessible directly from the outside.

Figure 20: The excavated ground plan of case-study [Ex-5.1]. Red represents the walls of the building.
The building excavated at Posta Crusta\textsuperscript{96} has a ground plan quite similar to the above mentioned Villa Sambuco (‘[Ex-5.1’]). Excavated in 1972-1973 during a Belgian fieldwork project (under the supervision of De Boe) the almost square shaped building (20.8 x 19.2 m; 338 m\textsuperscript{2}; fig. 21) consists of thirteen rooms (accessibility 1 - 5).

The rooms to the north of the central corridor (Nr. 2) were used for agricultural / production practices (except room 8, which seems to have served as a modest Tablinum with mosaic flooring), which included facilities used for the processing of olive oil (rooms 9 - 11). The rooms to the southern end seem to have served a domestic purpose. A second storey could be reconstructed on part of the building, as the walls were thick enough to support it (50 cm in width). No further indications for such architecture were however found.

Three building phases could be defined within the archaeological material (of which the one discussed above belongs to the second phase): \textbf{Phase 1} (mid-Republican – late Republican period), consisted solely of some series of simple ditches and a cellar (with cistern). The traces of this phase seem to have been completely destroyed by the construction of phase 2. \textbf{Phase 2} (late Republican period), is the square building discussed above, with the thirteen rooms, accessible by one door in the southern wall. \textbf{Phases 3-4} (late Republican – late Imperial period), are the later phases of the building, in which it develops into a much larger complex, with two wings of rooms surrounding a central courtyard (app. 43 x 45 m). Further information on these phases can be found in NdS S-Ottava / Vol.XXIX (1975, 523-528). Overall the complex can thus be interpreted as simple building eventually growing out into a large scale Roman villa (with numerous renovations and restorations). Unfortunately not every phase is defined in
equal portions; large gaps in the interpretation are still present due to the absence of a systematic study of the materials uncovered within the different contexts.

Deep ploughing in the area during the 1960’s (for the large scale agricultural transformation of the landscape) destroyed or displaced much of the archaeological material. Aerial-photography has however brought to light evidence for large scale olive and vine projection in the immediate area of the Villa, in addition to other possible rural buildings.

\textbf{Figure 21}: The excavated ground plan of case-study [Ex-5.2]. \textcolor{red}{Red} represents the walls of the building, \textcolor{blue}{blue} the definable architectural features.

\textsuperscript{96} Approximately 3.5 km N-NW of Ordona.
‘Site 9’ was originally identified by Nigel Mills and his team during a field survey of the area. It was documented as a tile scatter of app. 45 x 20 m (adjacent to a modern house). After this initial excavation it was selected during the 1979-1981 summer campaigns for excavation. It seemed to be a typical example for the ‘hill-side’-type settlements from the Roman period, as listed by the survey-project. This project therefore implemented a strategy needed to give further insight into small scale farmsteads encountered during survey projects.

By combining both pedeological survey and selected excavation, it was aimed at two things: (A) to provide a more precise date-range of the building (by recovery of a greater amount of pottery), and (B) to formulate a more detailed idea on status and function of the site (from the excavated remains). Unfortunately (due to unknown reasons) the excavation itself was limited to the clearance of the plough-soil, the hand-digging of two test-pits (‘sondages’), the machine cutting of three other trenches and the excavation of features within one of the trenches. It did however provide information not yet available for archaeological research.

Although only part of the building could be excavated (as rooms continued beyond the confines of the excavation pit), the building seems to have followed a rectangular ground plan (at least 11.4 x 10.4 m; 119 m² minimal; fig. 22). Consisting of 9-plus rooms (accessibility 1 - 3), the complex could be entered through Room “A” (next to the dolium). This led to the main feature within the complex, Room “B”, which should probably be interpreted as a central “open” courtyard / hallway. Such corridors have already been discussed in the above mentioned examples of Posta Crusta (‘[Ex-5.2]’) and Villa Sambuco (‘[Ex-5.1]’). As in both these examples the researchers do not exclude the possibility of a second storey on top of part of the building, an additional floor is thought possible. Though no direct evidence of this archaeological feature is present, the absence of hearths or domestic accommodation spaces at ground-level indicates further rooms above.

The considerable quantity of domestic pottery recovered, together with the above discussed ground plan, strongly suggests that the building was a simple independent peasant household (not an isolated shelter or production centre). In status it seems to outrank the Monte Forco building (‘[Ex-1.1]’), though is clearly not as sophisticated as Posta Crusta (‘[Ex-5.2]’) or Villa Sambuco (‘[Ex-5.1]’). Field survey uncovered more sites of similar character, and in such a frequency that the hilltop must have been intensively used: probably for the terraced production of oil and wine.

Although the building only has one single building phase (late Republican – early Imperial), there is evidence for an earlier habitation phase within the area, visualized by

---

97 In essence, this project combines the two data-sets (‘survey’ and ‘excavation’) in a similar way as I try to in this thesis. By further investigating a site (or ‘site-type’) uncovered during a field-survey, insight is given in how a specific building or feature is represented in both material contexts.

98 The building materials used within the complex were very limited. Though there was a tiled roof, no mortared walls, solid flooring materials or any refinements (e.g. ‘window-glass’, ‘marble veneer’ or ‘tesserae’) were uncovered.
the dump-sites, shallow pits and broken tile fragments encompassed in the walls of the second building phase. The phases themselves could not be dated to higher precision, partially due to the way in which the material was published. Although the researchers mention the “impressive range of pottery” collected from the site, only some of them were published in the article. They decided not to publish the full range of artefacts at this time, as the main point of interest of the project was to interpret the settlement-history (influenced probably by the projects survey-orientated background), not the detailed reconstruction of the commercial contacts of Luni.

The Ager Lunensis survey, which led to this excavation, demonstrates the importance of combining both ecologically and economically oriented approaches within the field of landscape archaeology. Without any study of the more inhospitable landscapes, most of these small-scale farmsteads would never have been found, and the land-use system thus also never has been accurately reconstructed. Surprisingly however is that even these ‘extremely rural’ sites are disturbed by ground-moving activities (recent), and therefore possible for research practices.

(**) [Type: C-II]
Medium to large scale (10 x 15 m² / 150 - 200 m²). Rectangular in shape, they are also complete with a central (roofed) hall-way. The examples have however become part of a much larger (possibly villa) complex, something not attested in the C-I sub-type. The sub-division in building types is thus primarily based on the later incorporation of the building into a much larger complex (in most cases on a later date into a larger (villa-)complex). [The two examples are presented below]

[Ex-6.1]: Mancamassone (Banzi), Basilicata

During the year 1982 the Archaeological Superintendency of Basilicata undertook the excavation of a small rural building at Mancamassone. They excavated a productive rural republican age farmstead, rectangular in shape (14 x 11.5 m; 161 m² minimal; fig. 23), with 4 rooms (accessibility 1 - 2) and a small courtyard.

Within the first phase (mid-Republican – late Republican) of the building two small millstones (domestic use) and a household alter was excavated. During the second phase (mid-Republican – late Republican) the building expands immensely, reaching a surface of at least 667 m² (27.5 x 24.3 m minimal). The layout of the building is also completely changed: from a “C-II”-type (rectangular with internal courtyard) to a “B-I”-type (L-shaped with an external courtyard). Rooms of this phase are located alongside the western and northern sides of the courtyard (accessibility 1 - 4), although the exact number of rooms could not be reconstructed. Uncovered loom-weights connect the building to weaving practices.99

A detailed description of the further material assemblage was still in progress during the publication of the publication by Tagliente & Fiorese (1987).

Figure 23: The excavated ground plan of case-study [Ex-6.1]. Red represents the walls of the building, blue the definable architectural features.

---

99 A detailed description of the further material assemblage was still in progress during the publication of the publication by Tagliente & Fiorese (1987).
During renovation works within the courtyard of the Masseria Tesoro at Leonessa in 1971, the Archaeological Superintendence of Basilicata (under supervision of C. Klein Andreau) encountered part of a late Republican – early Imperial Villa Rustica. Although only part of the larger complex was excavated, the extent of the complete complex could be reconstructed: the dispersion of ceramics on the surface stretches app. 6,000 m². The part encountered in the excavation seems to be rectangular in nature (at least 15.6 x 12 m; 187 m² minimal; fig. 24), consisting of at least four rooms (accessible within 1 - 2 / 1 - 4 steps). The wine-press (‘Torcularia’) located within room 1 indicates that this part of the villa housed the production centre of the facility. Though no direct evidence is present for a courtyard, the large supporting blocks within the rooms indicate supports for a roof corridor (which are also present in the other type-examples discussed in this paragraph).

The evidence uncovered leads to the conclusion that the villa was of great importance, both in production as luxurious domestic function. The exact architectural type to which this example belongs is however less straightforward. Its partially uncovered nature makes definite interpretation almost impossible, placing it somewhere between [Type C-II] and [Type E]. This is one of the problems you encounter when using a typology based solely on floor-plan architecture; some incomplete examples then become hard to define.

Chronology within the complex is somewhat problematic. The lack of datable Vernice Nera fragments, the used building technique and a single datable fragment of Sigillata Africana “A” proposed a date between the first half of I century A.D. – second half of the II century A.D. This is in line with the nearby located necropolis of Vaccareccia. The complete ceramic assemblage however (which includes non-datable sherds and surface finds) makes a chronology ranging from I century B.C. – second half of the II century A.D. for the excavated Villa more probable (end of the late republican period to the first part of the imperial period).

---

100 Approximitaly 14 km NW of Melfi.
101 Due to the location within present structures the investigation was limited to a cleaning of the area and excavations within a maximum of 200 m².
[Type D]

Medium to large scale rural buildings (25 x 40 m\(^2\) / 500 - 700 m\(^2\) or 1,000 – 2,500 m\(^2\)), which are mainly rectangular (or square) in shape. Central to this type is the atrium-like (open) courtyard in the centre of the complex. All other rooms (10 - 30 x) within the complex are placed around the centralized courtyard. In total, six examples of this type were included within the site-catalogue: four belonging to type D-I and two to D-II.

(*) [Type: D-I]

Medium sized rural buildings (25 x 30 m\(^2\) / 200 – 1,200 m\(^2\)), with a centralized atrium. This feature provides access to all other rooms (10 - 20 x) within the complex. The building itself is generally rectangular (or square) in shape. [The four examples are presented below]

[Ex-7.1]: Colli di Enea (Rome), Lazio

The building found during this excavation, interpreted as a Villa Rustica, was located on the ancient road between Lavinium and Ardea. Unfortunately the publication does not provide any further information on the date or reason behind the excavation.

The building stretched an area of app. 680 m\(^2\) (27 x 25.1 m; fig. 25), complete with a central courtyard (square shaped) surrounded by a series of at least 20 rooms which were divided in both living and production areas: domestic rooms were located alongside the two arms of the complex (East and West; Rooms “G”, “P”, “R”), production and storage rooms on the northern side (the ones with clay floors). The entrance to the complex, which had a portico, was located on the South-Western side and gave access to the rooms within 1 - 4 steps.

Three different phases of construction, use and restructuring could be identified: Phase 1, the development of the original floor plan, with a presumed agricultural function (marked by millstone, dolia and winepress fragments re-used in the walls of the second phase). Phase 2 (Republican Period), in which the architectural plan was completely changed (with huge amounts of tiles in Rooms “G” and “F”), adapted to the use of specialist production activity areas within the complex. During this phase the original walls were shortened, certain rooms expanded or enlarged and some divided by new partition walls. The central courtyard (“M”) remained open, but takes on the appearance of a long corridor (due to the addition of the new rooms). Additional aspects like the workbench, tub (“vascone”) and encased dolia indicate production and / or storage functions. The signs of a hydraulic system relate to the production and dyeing of natural fibres and further weaving practices. Phase 3 (The imperial Age), shows a further addition to the complex by two new rooms (“N” and “N1”) on the South-Eastern side. In total the occupation of the building stretches from the end of the fourth century B.C. to the second half of the first century A.D. (mid-Republican to early Imperial).

Fig. 25: The excavated ground plan of case-study [Ex-7.1]. Red represents the walls of the building, blue the definable architectural features.
A Villa (Rustica) / Farmstead (etrusco-romana) of modest proportions with a square floor plan (36 x 35.5 m; 1,182 m²; fig. 26), extending over an area of approximately 1,270 m², was excavated at Selvasecca (Blera) during the period 1965-1967. The rural building, excavated within a corporation between the Swedish institute in Rome and the Soprintendenza of Southern Etruria, had simple layout with a central courtyard (with peristyle), encompassed by rows of rooms on all sides (double rows on the NE, SE and SW side; single row on the NW side; 20-plus rooms in total, accessibility 1 - 4). The entrance of the complex was on North-western side.

Further characteristic features of the building were: the porticoes in the courtyard, the well (4.50 m deep) for the drainage of rainwater at courtyard and tanks / ‘torcular’ for production processes. The rooms to the north-east were used as storage rooms. The double rows of rooms at the south-western end of the villa are in very bad conservation conditions, but might indicate rural dwelling rooms as they include traces of hearths, drainage channels and decorated plaster / mosaic (although these aspects could have been added at a later date). The elongated outer room at the northern end of the building was probably in use as a connected barn / stable, with its own outside entrance. Both the floor plan as well as the materials used in the construction reveals that the building was aimed at providing both a functional farmstead as well as a comfortable (though not opulent) dwelling. In addition evidence was found for both wine / oil-production. The ceramics themselves still have to be investigated in detail, but premature data would indicate a range from 2nd century B.C. – well into the Imperial age. Unfortunately, recent agricultural work (e.g. deep ploughing) have damaged the very walls of the archaeological building severely, scraping away the foundations and hiding the archaeological traces beneath a thick blanket of ploughed up soil and other material.

102 An excavation initiated after the recovery of an (further unrelated) ‘antefix fictile’ of Silenus, probably belonging to an Etruscan temple (Hellenistic age: IV - III century B.C.).
In the period between June-November 2005, a 1.5 km long transect of land was investigated within a series of test-trenches (covering a total of 550 m²). The ‘Soprintendenza per i Beni Archeologici del Lazio’ started this preventive excavation as the area was intended for the construction of a road between the industrial zone Schito-Colle d’Arte and the Apennine mountain ridge. The site discussed here was located in the territory of ancient Sora (to the west of San Domenico; about 4 kilometres to the southwest of the current city centre). It was placed alongside a prominent trade-route between the centres of Cereatae Marianae, Verulae and Ferentinum (which might indicate the richness of finds).

The archaeological material indicates a masonry structure of rustic nature, probably a Villa Rustica with adjoining rural landscape. Although only parts of the foundations could be excavated\textsuperscript{103}, the complete rectangular / square shaped floor plan (at least 26.6 x 25.8 m; 686 m\textsuperscript{2} minimal; fig. 27) could be reconstructed, indicating a “modest, but articulated dwelling” (Cerqua 2007, 233). The central body of the building is divided into a series of compartments (Rooms “A”, “B”, “G”), with a central courtyard to the south (Room “P”). This courtyard has a pavement of cobblestone and is intersected / crossed by two channels (draining rainwater towards the southern end of the complex), was intended to act as an open area linking all other chambers. Adjoining Rooms “L”, “M”, “N” probably functioned a storage rooms for the conservation of cereal products. Within the building the residential aspect is fused with a agricultural production one, typical for rustic buildings of this period. This indicates a self-sufficient lifestyle, described by the excavators as “un buon livello di vita”. In total the complex spans at least twelve rooms (accessibility 1 - 4 plus).

Most of the characteristics from the buildings walls indicate that it had a (wall)build-up of perishable material:

\textsuperscript{103} In certain places the mechanical agricultural ploughing has disturbed the archaeological layers, but the surviving archaeological material seem to be considerable.

the continuousness of the foundations, the absence of any clear abandonment layers, the absence of wall-collapses, the presence of nails and circular postholes. The large amount of tiles uncovered in the area would indicate that the wooden and mudbrick build-up was covered by a permanent roof system. The architectural evidence indicates a \textbf{single constructive phase}, although different masonry types can be identified (possibly connected to different functional activities undertaken within the different rooms). The habitation of the complex can be placed between the beginning of the III and first half of the II century B.C.\textsuperscript{104} (i.e. mid – late Republican).

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure27.png}
\caption{The excavated ground plan of case-study [Ex-7.3]. \textbf{Red} represents the walls of the building.}
\end{figure}

Material evidence excavated in the building consisted primarily of: amphorae, dolia, kitchenware, glass objects, animal bones, architectural fragments (a lion protome) and loom weights\textsuperscript{105}. These last objects indicate cloth-production within the residence, although the exact place of origin within the complex could not be identified (post-depositional processes had moved the objects around). Further evidence however, like the rectangular

\textsuperscript{104} Some \textit{Terra Sigillata} sherds belonging to the first century B.C. uncovered within the layers of abandonment might indicate revisits on a later date.

\textsuperscript{105} A complete shape repertoire of the finds is Included within the article.
basin located in Room “G” (working or conservation of cereals, based on botanical evidence), a ‘Basalt millstone’ and several ‘Dolia’ fragments, do indicate the production area towards the south-western end of the complex. One special find, indicating further wealth was the terracotta lion protome (located in Room “H”).

(**) [Type: D-II]
Large scale rural buildings (30 x 50 m² / 1,000 – 2,500 m²), with at least two courtyards. The complex is ‘rectangular’ in shape, consisting of ‘10 - 30’ rooms. [The two examples are presented below]

**[Ex-8.1]: Tor Bella Monaca (Rome), Lazio**

Already discussed within ’[Ex-2.3]’. This case-study consists of a later (third century B.C.) remodelling and extension of the earlier spaces within bigger U-shaped floor plan, with a protected courtyard open to the south.

**[Ex-8.2]: Boscoreale Giuliana (Boscoreale), Campania**

Excavated in 1904 at Boscoreale this farmstead has a rectangular shape (32.4 x 18.5 m; 527 m²; fig. 28) and divided into two main parts: the main building, with a (possibly open) central hallway (“A”) and twelve individual rooms (Accessibility 1 - 5), and a large courtyard / semi-roofed room to the west. Chestnut stakes to support vine-ranks in the field were excavated within the courtyard, indicating a role within agricultural produce production or storage. Other agricultural functions were indicated within the main building: wine-storage ([Room #10] and storage rooms ([Room #6 - 8]. The row of smaller rooms located at the north-eastern side of the complex ([Rooms #1 - 4] probably functioned as domestic rooms, and could even be indicated as cellae for a resident slave force (uniformly shaped). The floor-plan discussed here belongs to the early Imperial phase of the complex, but one could imagine a slightly simpler, though quite similar phase as its predecessor.

Figure 28: The excavated ground plan of case-study [Ex-8.2]. Red represents the walls of the building, blue the definable architectural features.
Large scale complexes (40 x 45 m² / 2,000 – 3,600 m²), showing villa-type features. They are complete with centralised and secondary courtyards, additional sheds or outhouses, and production rooms (in total either 8 – 10 or 40 – 41 rooms). The complex is comprised of different sectors, in which two main nuclei of rooms at juxtaposed positions create a combination between residential area and production centre (i.e. a functional differentiation). [The three examples are presented below]

**[Ex-9.1]: San Rocco (Francolise), Campania**


A large scale villa-complex, with a defined separation between the residential area (NW) and working farmstead (SE). Architecturally independent, the units are separated by a small path giving access to both the main building and farmstead. The residential area is set up in a rectangular manner, with rows of rooms (30-plus; accessibility 1 - 4) placed around a central peristyle (a style both mimicking the atrium-type, as well as the ‘Villa Urbana’). The working farmstead is just as complex, with two interconnecting courtyards on which all types of facilities were attached (10-plus rooms). In total the complex encompasses a surface of app. 3,580 m² (70.6 x 48.1 m²; fig. 29).

Further distinction can be found in the different facilities located in the working farm: courtyard #1 was used for the hoarding of livestock, courtyard #2 for the production of oils (complete with press-rooms; room #3) and the pottery workshop (rooms #5 / 6) in the building in-between the two courtyards (unfortunately the excavation-data of the working farm still had to be published during the publication of Rossiter’s book).

**[Ex-9.2]: Metaponto (Bernalda), Basilicata**


This rural building was excavated under the Metapontine Chora on the property of the Durante Family, during landreshaping activities to prepare the land for the cultivation of vines. During the excavation that followed (December 1968 - February 1969) the Soprintendenza alla Antichità della Basilicata excavated the ground plan of a farm (fattoria), which seemed to be typical for the ‘pastio agrestis’-type, in which large courtyards are a sure evidence of enclosures for animals (Caronna 1998-1999, 177).

The complex does not seem to have one distinct shape, but seems to consist of a series of different sectors (spanning an area of at least 2,033 m²; 50.1 x 38.5 m²; fig. 30; p.104). Although incomplete, at least nine rooms could be identified (accessibility 1-3), placed alongside two courtyards. The complex can be subdivided into four distinct areas (all with their own specific characteristics and periodisation): Area A (to the south), Area B (to the north), Area C (to the east, quite small incomplete area) and Area D (a masonry structure to the west with a series of rooms).

[Area A] was a single room (11 x 14 m), with a large opening in southern wall (probably used as an entrance way for large carts). Large amount of ‘tiles’ uncov-
ered next to the walls indicate a roofing of the area. This room was probably the first room build within the complex, probably shortly before the construction of “Area B” (of which certain changes in ground-plan indicates a different phase; begin II century – end I century B.C.).

[Area B] should be indicated as an open courtyard (E-W: 17 m; N-S (right): 19 m; N-S (left): 26 m) giving access to the other rooms within the complex. A small room or shed (4.50 x 4 m) was found within the area (again roofed). The centre of the courtyard shows evidence for a fragmented colonnade (part of the possible monopodium). This is backed up by the large amount of architectural elements (Doric capitals, colonnade, calcite blocks, etc.) that litter the area (I century A.D.).

[Area C - D] are further additions to the complex, consisting of a series of individual smaller rooms (I - II century A.D.).

Their fragmented state of the archaeological material (partially due to the heavy ploughing activities, which preserved the walls only on a foundation level) makes functional interpretation quite difficult. Ancient sources however provide evidence that the Metapontine area was heavily used within transhumance routes. In this light the complex might have functioned as a quarter for livestock during the transhumance or breeding period (Caronna 1998–1999, 177). There is however insufficient material to back up this claim, making an interpretation as a Villa (based on the decorative architectural elements in “Area B”) just as convincing.

[Ex-9.3]: “Le Piane” (Larino), Molise

Within two preliminary investigations (2007/2009) and a full-scale excavation (2010) by the ‘Soprintendenza per i Beni Archeologici del Molise’, a villa rustica was investigated that was located between two important ancient roads: Centurelle-Montesecco and L’Ateleta-Biferno-S.Andrea. No exact reason for the initial investigation for the area was provided within the article.

The building was orientated North-South and can be divided into three main sectors: [W-NW wing] with residential rooms 1, 2, 6, 7, and 8; [N-NE wing] of which only a small part is put into evidence (e.g. room 4, which is intended as a storage room); and the [Third wing] with Rooms 3 and 5 to the southern central part (including the two arms around the open courtyard and portico). In total the complex seems to span at least 1,066 m² (38.8 x 36.3 m; fig. 31; p.105), subdivided into 8-plus rooms (accessibility 1 - 4).

Due to the decorative elements within the pavements and certain ceramic classes (identified within different stratigraphic layers), three main periods can be identified, subdivided in five steps: Period I – Phase 1 (end 2nd century; Late Republican), characterized by the construction of the villa (walls of opera incerta), residential rooms with mosaics and storage room (N7.4; e.g. storage of foodstuffs in two dolia and one anfora), located around a central courtyard;
Period II – Phase 3 (end 1st A.D.), marked by the destruction of the courtyard with portico, but construction of the structure in ‘opera mista’, with re-used material from the first part of period II, and restructuring of the other rooms (which coincides with the enlargement of the storage areas); Period III – Phase 4 (2nd - 3rd century A.D. (and up to recent years), the abandonment and destruction of the complex, identified by excavation of a series of test-trenches; and Period III – Phase 5, a modern stage, which relates to a progressive accumulation of soil and agricultural exploitation of the area throughout hundreds of years.

The complex, which spans from the late Republican – late Imperial period, is severely damaged by agricultural works (half-mechanical ploughing technique), and buried beneath a soil layer of only 30 - 50 cm. This does not help in the functional interpretation of the incomplete building.

[Type [0]]

The type-group that encompasses all the unidentifiable complexes which were too heavily damaged by post-deposition processes (or unavailable data due to only partial excavation practices) to provide enough information on ground plan identification. [The five examples are presented below]

[Ex-10.1]: Settala (Rodano), Lombardia


In the year 2008 a natural-gas-pipeline was constructed within the Municipalities of Settala, Pantigliate and Rodano, alongside a track of approximately 7.5 km. The whole area disturbed by these construction-works was archaeologically investigated. The article from which this paragraph takes its information covers part of the project. Most of the features points towards a habitation or productive use of the area, probably relating to the agricultural exploitation of the landscape. These include a series of pits, ditches, material scatters and three furnaces. The main feature within the area is the villa rustica, located in Sector 8 (labelled as ‘Structure 12’).

The excavated building, dating from the first century B.C., consisted of a series of foundation walls. Unfortunately these stretched beyond the limit of the archaeological pit, making a full reconstruction of the floor plan impossible. Two distinct building phases were however apparent. The first phase was defined by three masonry foundation walls of similar construction technique (bricks placed in a fishbone-structure, kept together with a thin layer of grey cement / clay. They form a rectangular room (3 x 5.60 m; fig. 32; p.106), orientated N-S. The western and southern wall seems to mark the outer perimeter of the Villa.

Evidence for demolition and collapse in ancient times is indicated by the material, providing probable cause
for the changes in the secondary phase (first century A.D.). This phase is characterized by the construction of a new delimitating wall (indicated by a different placement of bricks) on the southern side of the building (at least 13 m long). In addition a (presumably open-air) ‘alia’ was connected to the villa, identified by a series of postholes. The adjacent Roman road was made up of beaten earth, bricks and pieces of tile. Further information on additional architectural elements or specific material finds was not provided. Moreover the ground plan was much too incomplete to give any useful insight into the total number of rooms or accessibility.

The extremely large scale of the excavation project alongside the full length of the trench had taken its toll on the eventual interpretation of the area. Although a whole range of different archaeological features was unearthed, and every one of them was documented in detail, their eventual interpretation was not so clear cut. Most features were very superficial, and severely disturbed by recent agricultural practice. In addition, the features were often widespread along the track and localized on the margins of the excavation pits. Due to this it was not always possible to connect, or even understand the different features.

Modern ploughing activity in the autumn of 1957 brought to light evidence for a probable Roman (early Imperial) farmstead (or “Villa Rustica”) and necropolis at Orbetello, on the ‘La Torretta’ farmstead. During this time archaeologist Guglielmo Maetzke (the writer of article) and the son of farm-owner surveyed the area, documenting what they encountered.

Due to the state of slope and terrain it was almost impossible to document the archaeological data very precisely, leading to an incomplete and somewhat unclear ground plan. The article therefore relied on the “reconstructed plan” (approximation) of reality, showing a rectangular / square shaped part (35 x 40 m; 673 m² minimal; fig. 33) of a probably much larger complex, with rooms of considerable size (At least five rooms, with possible 1 - 2 accessibility). Only the architectural evidence on the building material and the uncovering of a torcularia (winepress) was mentioned within the publication. Further interpretation than “part of a rural production centre” seems to be impossible.

[Ex-10.2]: Orbetello (Grosseto), Toscana


Figure 32: The excavated ground plan of case-study [Ex-10.1]. Red represents the walls of the building.

Figure 33: The excavated ground plan of case-study [Ex-10.2]. Red represents the walls of the building.
This example consists of an only partially visible ancient complex, uncovered on the farm of Mr. Loreto De Sanctis (currently in use as his personal cellar). As no systematic excavation was conducted on site, we rely for our evidence on the field observations by the writer and spoken report of the landowner. The five rooms investigated provide partial information on the larger complex it originally was. Due to this room accessibility and the possibility of courtyards could not be definitely defined. The main room is 4.30 x 4.10 m, with walls of Opus Vittatum (consisting of three rows of stones, with outer plastered layer; fig. 34). The floor is paved with a mosaic of big tesserae (black-and-white). No further evidence was provided on materials encountered on-site, making the architectural data basically the only piece of evidence.

The example excavated at Radicofani (Siena) portrays a small scale roman farmstead that has been severely disturbed by modern agricultural works (through the last 50 years of mechanical ploughing). As the excavators minutely documented every stone on sight, we can she how these activities influence the state of conservation for even the most sturdy of walls. In de period from 1999-2003 the ‘Soprintendenza per i Beni Archeologici della Toscana’ conducted two investigative campaigns: (A) uncovering the farmstead itself, and (B) digging a test-trench in the vicinity (to provide more datable material on the overall settlement; not to be discussed here).

[Trench (A)]: Three walls were uncovered, made of ‘giallastro argilloso’. The building itself was orientated E-W and seems to be a simple building with slightly trapezoidal floor plan (at least 11.2 x 6 m; 67 m² minimal; fig. 35), covered with roof tiles (as this object is found in quite large quantities). Internal room divisions (and thus accessibility) could not be reconstructed. Two distinct floor levels could however be reconstructed: one made up of red beaten clay, the other of ‘cocciopesto’. The presence of large amounts of burned wares and charcoal indicates that the
tury A.D.; making the complex span from late Republican – early Imperial period). In addition to the architectural elements, a large array of pottery shapes was found, ranging from cooking- to storage / transport-ware.

The complex was interpreted as a Roman rural building, fitting between the simplest rustic building type and a single-family dwelling. Unfortunately the conservation status of the building does not clarify in detail the different aspects within the building (consisting of a simplistically planned building of just a few rooms, with outside working places). During the late republic period the economical and social structure in the area was dominated by a system of free (hand) farmers and fragmentation of farmland (“on a family basis, to small and medium sized land exploited for mixed cultures aimed at self-sufficiency.”; Pallecchi 2008-2009, 42).

[Ex-10.5]: Lugnano in Teverina (Terni), Umbria


In contrast to all the above mentioned case-studies, this example will be discussed without any further evidence on the ground plan of the building, as the publication did not provide a map (or even distinct information on the dimensions or number of rooms within the complex. All evidence proposed was thus solely relying on the textual description within the source publication.

Excavated by the ‘Soprintendenza per i Beni Archeologici dell’Umbria’ (1982-1984), after the identification of clandestine digging and recent deep ploughing in the area, the team excavated a Villa (Rustica) at Lugnano in Teverina (Terni). The complex was visible on the surface by a find scatter of at least 2,000 m². The material uncovered here could be divided into two groups: (1) building material (which included bricks, cocciame and tesserae) and (2) pottery (amphorae, ollae, cups, etc.).

Although no ground plan was provided, the publication does mention two distinct rooms, which seem to have “completely” survived: Room “N”, which shows a layer of collapsed with plaster, bricks with stamps, amphorae and ARS, and Room “B”, which includes a mosaic flooring. When compared with the outer material found on the sites’ surface, the complex should probably be interpreted as a Villa, combining a luxurious residential sector (with certain decorative features) with a production facility (e.g. dolia; Monacchi 1986-1987, 12). A combination of building technique, certain datable finds and the collapsed layer of white plaster in Room “N” indicate a date range between the early Imperial – late Antique period (I century B.C. (late) – IV / V century A.D.).
Part C-IV:

-The Analysis: Tables and Graphs-
Graph 24: A histogram listing the taphonomic processes that influenced the archaeological material buried below ground. The abbreviations used in the graph represent the following terms: ‘Clandestine’ / ‘Construction’ / ‘Flooding’ / ‘Irrigation’ / ‘Levelling’ / ‘Ploughing’ / ‘Standing Structures’ / ‘[XXX]’.
Graphs 25 - 27: The bar-charts provide a chronological overview of the excavated cases (in relative dates), sub-dividing the cases into chronological sub-periods of 50 years. The cases per time-period are divided into three groups: 'Yes' (complete; Green), 'Yes (Almost)' (semi-complete; Blue), and 'No' (incomplete; Red). The graphs represent the total dispersion of the cases (Above), the selection of farmstead cases (Middle), and villa rustica cases (Below).
### Building Shape

<table>
<thead>
<tr>
<th>Group</th>
<th>&quot;Only Shape&quot;</th>
<th>&quot;Main Shape&quot;</th>
<th>&quot;Add. Shape&quot;</th>
<th>&quot;Rest / Low&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Farm]</td>
<td>Rectangular (6.1x)</td>
<td>L-Shaped (2.33x)</td>
<td>Diff Sect (3x)</td>
<td>Trapezoidal (1x)</td>
</tr>
<tr>
<td>[Villa]</td>
<td>Rectangular (1.5x)</td>
<td>L-Shaped (1x)</td>
<td>Rect (elong.) (1x)</td>
<td>Square (0.5x)</td>
</tr>
<tr>
<td>[Villa Rustica]</td>
<td>Rectangular (7x)</td>
<td>Square (3x)</td>
<td>Diff. Sectors (2x)</td>
<td>L-Shaped (0.5x)</td>
</tr>
</tbody>
</table>

**Tables 24 - 25**: Listing the general buildings shapes for all cases (above) and specified for the site-types (below).

#### [Building Shape]:

![Building Shape Chart](chart1.png)

**General building shape**

#### [Build. Shape vs. Type New (Main)]:

![Build. Shape vs. Type New Chart](chart2.png)

**General building shape**

**Graphs 28 - 29**: Two bar-charts listing the excavated cases in relation to their building shape classes ('Different sectors' / 'L-shaped' / 'Rectangular' / 'Rectangular (elongated)' / 'Square' / 'Trapezoidal' / '[XXX]'). The first graph (above) shows the division of all of the cases per shape-group, dividing them into: 'Yes' (complete; Green), 'Yes (Almost)' (semi-complete; Blue), and 'No' (incomplete; Red). The second graph (below) shows the general building shape classes per type-group.
<table>
<thead>
<tr>
<th>Group:</th>
<th>“Y(1)”</th>
<th>“Y(2)”</th>
<th>“Y(2+)”</th>
<th>“[Y – Total]”</th>
<th>“N”</th>
<th>“Possible”</th>
</tr>
</thead>
<tbody>
<tr>
<td>[A-I]</td>
<td>20%</td>
<td></td>
<td></td>
<td>20%</td>
<td>60%</td>
<td>20%</td>
</tr>
<tr>
<td>[A-II]</td>
<td>33%</td>
<td></td>
<td></td>
<td>33%</td>
<td>66%</td>
<td></td>
</tr>
<tr>
<td>&quot;[A]&quot;&quot;</td>
<td>25%</td>
<td></td>
<td></td>
<td>25%</td>
<td>62.5%</td>
<td>12.5%</td>
</tr>
<tr>
<td>[B-I]</td>
<td>75%</td>
<td></td>
<td></td>
<td>75%</td>
<td>0.33%</td>
<td>16.66%</td>
</tr>
<tr>
<td>[B-II]</td>
<td></td>
<td></td>
<td></td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[B]’</td>
<td>64%</td>
<td></td>
<td></td>
<td>64%</td>
<td>22%</td>
<td>14%</td>
</tr>
<tr>
<td>[C-I]</td>
<td>33%</td>
<td></td>
<td></td>
<td>33%</td>
<td>66%</td>
<td></td>
</tr>
<tr>
<td>[C-II]</td>
<td>100%</td>
<td></td>
<td></td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[C-II or (E)]</td>
<td></td>
<td></td>
<td></td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;[C]”</td>
<td>44%</td>
<td>44%</td>
<td></td>
<td>44%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>[D-I]</td>
<td>75%</td>
<td></td>
<td></td>
<td>75%</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>[D-II]</td>
<td>50%</td>
<td>50%</td>
<td></td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;[D]&quot;’</td>
<td>66%</td>
<td>17%</td>
<td></td>
<td>83%</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>[E]</td>
<td></td>
<td>33%</td>
<td>33%</td>
<td>66%</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>[O]’</td>
<td></td>
<td></td>
<td></td>
<td>80%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>[E]“</td>
<td>29%</td>
<td>29%</td>
<td></td>
<td>58%</td>
<td>29%</td>
<td>14%</td>
</tr>
<tr>
<td>[O]“</td>
<td></td>
<td></td>
<td></td>
<td>80%</td>
<td>20%</td>
<td></td>
</tr>
</tbody>
</table>

Table 26: Listing the presence of one (or more) courtyards per type-new group. The presence is listed as: ‘Yes (1 courtyard)’, ‘Yes (2 courtyards)’, ‘Yes (2 or more courtyards)’, ‘No courtyards’, and ‘Possible courtyard’.

Graph 30: A bar-chart listing the percentage of projects that include: ‘Yes (1 courtyard)’, ‘Yes (2 courtyards)’, ‘Yes (2 or more courtyards)’, ‘No courtyards’, and ‘Possible courtyard’. The graph is sub-divided per type-new group.

Graph 30: A bar-chart listing the percentage of projects that include: ‘Yes (1 courtyard)’, ‘Yes (2 courtyards)’, ‘Yes (2 or more courtyards)’, ‘No courtyards’, and ‘Possible courtyard’. The graph is sub-divided per type-new group.
## Building Dimensions

<table>
<thead>
<tr>
<th>General (Amount):</th>
<th>Tip (Avg.):</th>
<th>Main (Avg.):</th>
<th>Add. (Avg.):</th>
</tr>
</thead>
<tbody>
<tr>
<td>[All / General]</td>
<td>100 - 200 m² (10x)</td>
<td>0 - 350 m² (22x)</td>
<td>500 - 800 m³ (6x)</td>
</tr>
<tr>
<td></td>
<td>650 - 700 m² (4x)</td>
<td></td>
<td>1,050 – 1,450 m³ (2.75x)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2,000 – 3,600 m³ (2.25x)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[XXX] [1x]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group:</th>
<th>Tip (Avg.):</th>
<th>Main (Avg.):</th>
<th>Add. (Avg.):</th>
</tr>
</thead>
<tbody>
<tr>
<td>[A-I]</td>
<td>0 - 150 m² (4x)</td>
<td>0 - 200 m² (1x)</td>
<td></td>
</tr>
<tr>
<td>[A-II]</td>
<td>100 - 250 m² (3x)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;A&quot;</td>
<td>0 - 250 m² (8x)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[B-I]</td>
<td>0 - 300 m² (4x)</td>
<td>650 - 800 m² (2x)</td>
<td></td>
</tr>
<tr>
<td>[B-II]</td>
<td>300 - 350 m² (1x)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;B&quot;</td>
<td>0 - 350 m² (5x)</td>
<td>650 - 800 m² (2x)</td>
<td></td>
</tr>
<tr>
<td>[C-I]</td>
<td>300 - 350 m² (2x)</td>
<td>100 - 150 m² (1x)</td>
<td></td>
</tr>
<tr>
<td>[C-II]</td>
<td>150 - 200 m² (1x)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[D-I (or E)]</td>
<td>300 - 350 m² (2x)</td>
<td>150 - 350 m² (5x)</td>
<td></td>
</tr>
<tr>
<td>[D-II]</td>
<td>650 - 700 m² (2x)</td>
<td>200 – 1,200 m³ [Dispersed] (4x)</td>
<td></td>
</tr>
<tr>
<td>[D]&quot;&quot;</td>
<td>650 - 700 m² (2x)</td>
<td>500 - 550 m² (1x)</td>
<td>1,100 – 1,450 m³ (0.75x)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2,500 – 2,550 m³ (0.25x)</td>
</tr>
<tr>
<td>[E]&quot;&quot;</td>
<td>2,000 – 3,600 m² (2x)</td>
<td>500 - 700 m³ (3x)</td>
<td>200 - 250 m² (1x)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1,100 – 1,450 m³ (1.75x)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2,500 – 2,550 m³ (0.25x)</td>
</tr>
<tr>
<td>[0]&quot;&quot;</td>
<td>50 - 100 m² (2x)</td>
<td>50 - 250 m² (3x)</td>
<td>1,050 – 1,100 m² (1x)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>650 - 700 m³ (1x)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[XXX] [1x]</td>
</tr>
<tr>
<td>[E]&quot;&quot;</td>
<td>1,050 – 1,100 m² (1x)</td>
<td>2,000 – 3,600 m² (2x)</td>
<td>150 - 200 m³ (0.5x)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[0]&quot;&quot;</td>
<td>50 - 100 m² (2x)</td>
<td>50 - 250 m³ (3x)</td>
<td>650 - 700 m³ (1x)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[XXX] [1x]</td>
</tr>
</tbody>
</table>

### Tables 27 - 29:
Tables listing the general building dimensions of all the excavated cases (above), the type-new groups (middle) and general site-types (below).
[Build. Dimensions: 'Farm']:

[Graphs 31 - 32: Scatter-plots visualising the building dimensions of the group of excavated cases. The graphs are sub-divided into the "type-source" categories: '[Farmstead]' (Above), for which four dimensional groups could be distinguished: 'Blue' (5 x 5 – 20 x 20 m²), 'Red' (25 x 30 m²), 'Green' (28 x 6.5 m²), and 'Purple' (50 x 38.5 m²). '[Villa & Villa Rustica]' (Middle), for which six dimensional groups could be distinguished: 'Blue' (10 x 17 m²), 'Green' (15 x 25 m²), 'Orange' (25 x 25 m²), 'Red' (33 x 45 m²), 'Purple' (58 x 70 m²), and 'Dotted Red' (10 x 20 – 20 x 35 m²). And '[Farm / Villa] & [Farm / Villa Rustica]' (Below), for which two dimensional groups could be distinguished: 'Blue' (16 x 21 m²), and 'Red' (30 x 35 m²).]
Graph 33: A box-plot visualising the number of individual rooms per excavated example. The graphs are sub-divided into the (sub) "type-new" categories.
<table>
<thead>
<tr>
<th>Group</th>
<th>&quot;Very High&quot; [75 - 100%]</th>
<th>&quot;High&quot; [50 - 74%]</th>
<th>&quot;Moderate&quot; [25 - 49%]</th>
<th>&quot;Low&quot; [0 - 24%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Farm]</td>
<td>Wall (44%)</td>
<td></td>
<td></td>
<td>Arch. Elem. (9%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Roof (14%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Util.-Manu. (12%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Floor (8%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Internal (8%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[Rest] (6% - all 3% per class)</td>
</tr>
<tr>
<td>[Villa]</td>
<td>Wall (28%)</td>
<td></td>
<td></td>
<td>Arch. Elem. (15%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Elab. Arch. (11%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Room (15%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Util.-Manu. (17%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Floor (7%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[Rest] (7% - all 2% per class)</td>
</tr>
<tr>
<td>[Villa Rustica]</td>
<td>Wall (38%)</td>
<td></td>
<td></td>
<td>Elab. Arch. (12%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Floor (15%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Util.-Manu. (15%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[Rest] (20% - all &lt;5% per class)</td>
</tr>
</tbody>
</table>

Table 30: Listing the general architecture find-material uncovered at the site-types.

**Graphs 34 - 36:** Pie-charts visualising the percentages in which the general types of architectural materials are present within the excavated cases. The graphs are sub-divided into the "type-source" categories.
[Find Material - general]

Graphs 37 - 39: Pie-charts visualising the percentages in which the general types of find materials are present within the excavated cases. The graphs are sub-divided into the "type-source" categories.
Table 31: Listing the general ceramic shapes uncovered at the site-types.

<table>
<thead>
<tr>
<th>Group</th>
<th>“Very High” [75 - 100%]</th>
<th>“High” [50 - 74%]</th>
<th>“Moderate” [25 - 49%]</th>
<th>“Low” [0 - 24%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Farm]</td>
<td></td>
<td></td>
<td>Table-w (36%)</td>
<td>Storage (16%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cooking-w (13%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Miscell. (11%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Storage/Trans. (13%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[XXX] (10%)</td>
</tr>
<tr>
<td>[Villa]</td>
<td>[XXX] (75%)</td>
<td></td>
<td>Storage (25%)</td>
<td>Table-w (18%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Miscell. (9%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Storage (9%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Storage/Trans. (9%)</td>
</tr>
<tr>
<td>[Villa Rustica]</td>
<td></td>
<td></td>
<td>Cooking-w (27%)</td>
<td>Table-w (18%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Miscell. (9%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Storage (9%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Storage/Trans. (9%)</td>
</tr>
</tbody>
</table>

[Cera. Shp. (G.): 'Farm']: [Graphs 40 - 42]: Pie-charts visualising the percentages in which the general types of ceramic shapes are present within the excavated cases. The graphs are sub-divided into the "type-source" categories.

[Cera. Shp. (G.): 'Villa']:

[Shape (G.): 'Villa Rust.']:
[Find Ceramic ware - general]

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[Farm]</td>
<td></td>
<td>[Rest] (34% - all &lt;6% per class)</td>
<td>[Rest] (34% - all &lt;6% per class)</td>
<td>Coarse-w (11%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TS (15%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>V-Nera (17%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Impasto (15%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[XXX] (9%)</td>
</tr>
<tr>
<td>[Villa]</td>
<td>[XXX] (100%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Villa Rustica]</td>
<td></td>
<td></td>
<td></td>
<td>[Rest] (12% - all 3% per class)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Coarse-w (15%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TS (18%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>V-Nera (15%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Impasto (6%)</td>
</tr>
</tbody>
</table>

**Table 32:** Listing the general ceramic wares uncovered at the site-types.

**Graphs 43 - 45:** Pie-charts visualising the percentages in which the general ceramic shapes are present within the excavated cases. The graphs are subdivided into the “type-source” categories.
General info per group:

<table>
<thead>
<tr>
<th>General (Amount):</th>
<th>Arch “Y”</th>
<th>Arch “N”</th>
<th>Mats “Y”</th>
<th>Mats “N”</th>
<th>Shape “Y”</th>
<th>Shape “N”</th>
<th>Ware “Y”</th>
<th>Ware “N”</th>
</tr>
</thead>
<tbody>
<tr>
<td>[All / General]</td>
<td>94%</td>
<td>6%</td>
<td>35%</td>
<td>65%</td>
<td>46%</td>
<td>54%</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>– Y/Y(A)/N</td>
<td>Y:22%</td>
<td>Y:50%</td>
<td>Y:25%</td>
<td>Y:23%</td>
<td>Y:13%</td>
<td>Y:32%</td>
<td>Y:7%</td>
<td>Y:37%</td>
</tr>
<tr>
<td></td>
<td>N:50%</td>
<td>N:54%</td>
<td>N:50%</td>
<td>N:55%</td>
<td>N:49%</td>
<td>N:63%</td>
<td>N:42%</td>
<td></td>
</tr>
</tbody>
</table>

Group:

<table>
<thead>
<tr>
<th></th>
<th>Arch “Y”</th>
<th>Arch “N”</th>
<th>Mats “Y”</th>
<th>Mats “N”</th>
<th>Shape “Y”</th>
<th>Shape “N”</th>
<th>Ware “Y”</th>
<th>Ware “N”</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Farm]</td>
<td>85%</td>
<td>15%</td>
<td>54%</td>
<td>46%</td>
<td>58%</td>
<td>42%</td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>[Villa]</td>
<td>100%</td>
<td>--</td>
<td>29%</td>
<td>25%</td>
<td>75%</td>
<td>57%</td>
<td>43%</td>
<td>100%</td>
</tr>
<tr>
<td>[Villa Rustica]</td>
<td>100%</td>
<td>--</td>
<td>29%</td>
<td>71%</td>
<td>43%</td>
<td>57%</td>
<td>43%</td>
<td>57%</td>
</tr>
</tbody>
</table>

Tables 33 - 34: Tables listing the general info he overall percentages of excavated cases that provide information on one of the four material find-classes (i.e. 'Architecture', 'Material (objects) finds', 'Ceramic Shape', and 'Ceramic Ware'). The cases are labeled as either 'Y' meaning with information on the subject or 'N' meaning without information. One table lists this feature for all the excavated cases (above), the other the feature per site-type (below).

Graph 46: A bar-chart, visualising the overall percentages of excavated cases that provide information on one of the four material find-classes (i.e. 'Architecture', 'Material (objects) finds', 'Ceramic Shape', and 'Ceramic Ware'). The cases are labeled as either 'Y [1]' meaning with information on the subject (Blue) or 'N [xxx]' meaning without information (Red).
Part C-V:
-Analysis outcomes per site-characteristic-
Introduction:
This part of the attachments will discuss the analysis of certain site-characteristics in further detail, as an addition to the main text. The results are based on the data-set compiled in the 'Microsoft Access'-database (designed specifically for this chapter), as well as the graphs and tables added in attachments Pt. IV – ‘The Analysis: Tables and Graphs’ (pp.109-121).

[‘Disturbance Taphonomy’]:
This aspect is related to the taphonomic processes that influenced the site after its deposition. Although it includes information on the ancient activity just after the site had fallen in disuse, the main focus of the analysis is pointed towards the disturbing factors of the last century. Processes like mechanised ploughing and other ground breaking activities can influence the archaeological data in various ways, even in the way the material is interpreted. An overview of definite changes in the material is thus not unimportant.

The General Overview
When looking at the different taphonomic processes that can influence the archaeological record included within the dataset, we can see that most of the cases are either without any defined taphonomic influence (“[XXX]”; 47% of total) or heavily influenced by recent modern ploughing activities (34% of total). Still, even though the gross thus seems to have ‘completely survived’ (as mentioned in one of the other aspect-discussions in this paragraph, it is very unlikely that the “[XXX]”-group was really without any disturbances. It is however more likely that the cases were indeed slightly damaged, but not enough to disturb the material in such a way that it was prominently influenced the archaeological material. The taphonomic processes of these groups were thus not important enough to explicitly mention in the project’s publication (which influences the balance between the actual archaeological reality versus the written account).

The secondary disturbance type within the overall group is ploughing. These cases, all designated later as ‘incomplete’ (see the paragraph on completeness), are heavily influenced by ploughing activity. This process makes part of the archaeological context (sometimes even the partial outline of the building) unusable for further research. The percentage of sites disturbed by ploughing activity is especially high in the ‘farmstead’-type. This is not surprising, as arable lands used in Roman times are often still very suitable agricultural areas (based on the ground’s geological make-up).

Two other groups are of special interest for this part of the analysis: the “Standing structure” (1.5%) and “Modern Construction” (6%). Both these groups are designated as true taphonomic processes, later on labelled as ‘complete’ (or ‘almost complete’). Both these processes thus only slightly influenced the archaeological material, and might in some cases even have been (part) of the reason of their discovery. So, in a way, the effect of these two “taphonomic processes” has been quite positive, instead of negative.

[‘Relative Date-range’]:
This aspect is related to the chronological data embedded in the archaeological excavated case-studies. Within the collected site-description, both examples of relative date-ranges (in periods) as well as exact dating (in centuries) were given. In essence, this data could be used to investigate a possible development of different farmsteads (and their material representation) over time.

Within this analysis however, the introduction of this aspect had a dualistic purpose. Although the chronological data was primarily used to check the date-range of the case-studies (making sure the selected cases focused on the right date-range:
the Republican period), it was also intended to investigate a possible development of (building) type-characteristics over time. This second part turned out to be very difficult however, as the 34 examples were much too few and too stretched out over the time-periods for the analysis to be statistically relevant. This will become apparent throughout this paragraph, when the different aspects will be discussed.

**General overview**

When looking at the overall chronology of the case-studies, it becomes apparent that the number of examples stays relatively stable over time. Although some outliers are to be distinguished, the main range of the cases seems to be around the Late Republican (and Early Imperial) period (29 of the 34 examples belonging to the period around 50 B.C.). This is in line with the time-frame of the proposed development of farmsteads (which was the focus of my thesis).

Some additional examples stem from the rest of the republican period, either just before or just after the later republican period, either just before or just after the later republican period: i.e. ‘200 - 100 B.C.’ (17%) and ‘A.D. 0 - 100’ (22%).

It is quite striking that the earlier periods (Middle Republic and Early Republic / Late Archaic period) are completely underrepresented in this selection of farmsteads and villae (app. 5-6%). Especially the complete lack of Early Republican examples is quite striking, which were not encountered during my literary search. Although many publications address the development of houses and rural buildings within Italy (e.g. Cifani 2008), at the end of the Archaic period, none of the examples I encountered belonged to this transitional phase (Late Archaic - Early Republican period). This, whilst the transitional phase would surely be very interesting for the interpretation of the later development of (Republican) rural buildings (and other complexes). The lacuna within the dataset could be a direct result of chronological or dating discrepancies (locked within the broad date range of the material collected from the archaeological sites). Based on the available material, a site could for instance be interpreted as either an Archaic or Late Republican period (probably in most cases swaying towards the Archaic period). This dating problem therefore requires further research, as the aspect is beyond the scope of this masters’ thesis.

A further problem with the chronological division of the excavated cases is that, when looking at the measurement of completeness for the given example, the number of incomplete examples stays consistently high over the periods. In some instances (e.g. ‘350 - 250 B.C.’ and ‘A.D. 150 - 550’) the number of incomplete examples is equal (or almost equal) to the total amount of examples within the period. Only within the main period (Late Republican – Early Imperial) is the amount of examples high enough to lead to a reliable interpretation. This aspect therefore quite certainly influences the outcomes of this part of the analysis (leading towards a selective use of the dataset), which begs the question if the chronological related outcomes are reliable at all. It could thus be concluded that the chronological aspect within this analysis (when it solely comes to the chronological order of the given examples) can solely be used as a ‘check’ of the selected examples, and not as a true interpretative tool.

**The type-new division**

The second part of the chronological analysis of the excavated examples was intended to identify if there was any correlation between the architectural layout of the building (i.e. the typology I set up, based on the general ground plan of the building) and the chronological timeframe in which it should be placed. In other words: ‘Are certain architectural types restricted to certain periods, and can we distinguish a development in these types over time?’ To answer these questions, all sub-types will be addressed in detail, after which the general conclusion on this aspect is brought forth.

When looking at the individual types we can see that the sub-types belonging to the ‘[A]-group’ are stretched of the entire time-line, but mainly focused on the later part of the chronology: Early Imperial and beyond. Within this main group, ‘[A-I]’ is focused in the Late Imperial period (and beyond), though one example is also pre-

---

106 But also some examples from the Republican period itself.
sent in the Middle Republican period. Like the main, ‘[A-II]’ is again spread over the entire time-line, but has a focus in the beginning of the chronology (Middle Republic – Late Republic).

A promising group within the analysis is group ‘[B]’, which is centred mainly on the Late Republican period (the expected period for changes in layout and function of the buildings). This comprises type ‘[B-I]’, which has a quite broad chronological time-frame (stretching the full length of the graph, from Middle Republic to Late Antique period), but focuses on the Later Republic; and ‘[B-II]’, which is without a definite chronological timestamp (possibly to the poor determination of the collected archaeological material within the examples of this group).

The ‘[C]-type’ has a quite similar chronological distribution, being apparent within the full stretch of the ‘Republican’ periods, but centering around the later end of this period. It is divided into the sub-types ‘[C-I]’, which includes primarily ‘Late Republican’ examples (as well as the directly surrounding periods), and ‘[C-II]’, which focuses on the Middle and Late Republican period.107

‘Type [D]’ is truly located all over the chronological time-line, which indicates that this architectural ground plan has a very broad time span. Both sub-type ‘[D-I]’ as ‘[D-II]’ have very longstanding lives, which is not surprising when one imagines the development of the included complexes. The villa Rusticae most certainly would have had earlier, less complex (possible simple farmstead-like) building phases, which eventually developed into much larger, luxurious complexes (i.e. the true villae rusticae). Developments like these take time, leading to a longer lifespan of the entire complex, and to an overrepresentation in the chronological order. Sub-type ‘[D-I]’ can be found in most time periods (though not in the earliest Middle Republican-phase). ‘[D-II]’ is in fact seen in all time-periods, but has a focus within the Early Imperial period (just after the expected “period of change”).

The truly luxurious complexes, the villae (‘Group [E]’), can be found in the later end of the chronological time-line, as was expected at beforehand. They range from the Late Republic until Middle Imperial period.

Although the examples within the ‘[0]-group’ do not have any specific underlying connecting features, except the fact that their ground plans were to incomplete for a definitive typological classification, the examples from this group all seem to belong to the later end of the chronological time-line: mainly the Late Imperial phases.

Of course discrepancies within the chronological order of the case-studies can partially be explained by the usage of very broad date-ranges, as was the case within a certain selection of the case-publications (e.g. ‘[Ex-1.2]’ - ‘[Ex-1.4]’, ‘[Ex-2.1]’ - ‘[Ex-2.2]’, ‘[Ex-7.4]’, ‘[Ex-3.3]’, ‘[Ex-5.2]’, ‘[Ex-7.1]’ and ‘[Ex-9.3]’). For instance, examples which are dated from the Middle Republic - Middle Imperial period, do indeed bias the overall timeframe of the selected sub-types. I tried to resolve this problem by spreading these ‘multi-period’ examples over a generalized set of time-periods (e.g. Middle Republic, Late Republic, Early Imperial-period, etcetera), of which the total number of examples adds up to one.

It however remains questionable if the chronological data related to the individual ‘Type New’-groups is significant at all. When looking at the overall chronology, it becomes immediately apparent that most (if not all) of the types have very broad timeframes. Even more so, a definitive typological development is difficult to determine at all. Although we can see that most of the “complex” building types (like ‘[D]’ and ‘[E]’) are placed more towards the end of the chronological time-line, the “simplistic” types (like ‘[A]’ and ‘[B]’) are encountered during all of the chronological time periods. The chronological division of the types and sub-types is therefore not convincing enough to address certain changes or “evolutions” in ground plan architecture.

---

107 This division is quite striking, as one would expect the ‘[C-II]’-type to be a later adaption of the ‘[C-I]’-type. The included examples however, tell a quite different story: ‘[C-II]’ being earlier then ‘[C-I]’. Of course, one should keep in mind that the analysis of these sub-groups is based solely on the data of one single example.

108 Possibly due to an effect of the broad date-ranges within certain building materials or pottery classes (i.e. ‘Coarse-wares’).
In addition to the ‘New Typology’ discussed above, the analysis also takes into account the site classification provided by the original researcher(s), in this thesis referred to as ‘Type Source’. Although most of them are based on generalised classes (‘Farm (Fattoria)’ / ‘Farm-Villa (Rustica)’ / ‘Farm-Villa’ / ‘Villa (Rustica)’ / ‘Villa’), the variable can be used as a check of the suitability of my own “new” site-typology. In addition, through adding this characteristic to the dataset, information can also be gathered on what the original researchers deemed important features to be noted for certain site-classes.

**General overview**

When looking at the overall data connected to the typological source sub-divisions (as implemented by the original excavators and authors of the archaeological material), it immediately becomes apparent that most of the cases belong to either of two groups: (i) the “Simple Farmstead” or (ii) “Luxurious Farmstead”\(^\text{109}\). Of the full 34 examples incorporated within this analysis, 27 belong to either one of these classes (79%).

On the other hand, intermediate-classes like (iii) “Farm-Villa” or (iv) “Farm-Villa Rustica” (also called combination classes) are very uncommon. Within the full dataset, only three examples of these combined classes are present. From this data it thus seems that the original archaeologists were quite certain (or thought to be) about their site-interpretation and functional reasoning\(^\text{110}\).

Another site-type which is present only in a relative low amount, is the (hierarchically high placed) (v) villa-class (a mere four examples; 12% of total). This low amount of cases however, is not that problematic, as the true (large) villae themselves were not of a main interest to my research questions. They are merely included within the dataset as a comparison-group, to evaluate which material find-classes and architectural features are characteristic for the (central) farmstead-groups.

As a second point of inquiry, the level of completeness (and thus indirectly the measurement of reliability of the results) was incorporated in the analysis. Here we can see that the variable is closely related to the overall size of the complex. Examples labelled as farmsteads by the original researchers, are generally more complete (in 58% of the cases), whilst the villa rustica examples are more incomplete (in 71% of the cases). In essence, farmstead-sites are smaller in size, and therefore more likely and easily excavated in their entirety, especially compared to their much larger villa and villa rustica counterparts. This could indicate that the information provided by the farmstead-examples is inherently more reliable than that of the other types. If this is the case, the comparison of both site-classes (and therefore both datasets) is somewhat problematic. The individual results of both groups should therefore first be scrutinized in their own right, before they are compared (see the paragraph below).

**The type-new division**

When comparing the results of the typology used by the original researchers, with the classification I devised (labelled as “Type New”; based solely on the ground plan layout of the complexes), we can see that both similarities as well as differences. Although the general hierarchical line is still present within both typologies, there are some quite apparent differences within the use of what at forehand might be interpreted as generalised terminology.

The first group to be discussed is Type [A], which can be seen as a mixed group between farm and villa rustica, as all examples included within this group either belong to the farm- or villa rustica-type (as provided by the original investigators). The sub-division (in ‘[A-I]’ and ‘[A-II]’) as introduced by myself, should therefore be seen as a division between: (i) ‘[A-I]’, which are the most simple, single

---

\(^{109}\) In other words: villa rustica-class.

\(^{110}\) These two primary results are quite promising for the continuation of my research in this thesis, as the certainty of the original researchers data might support the typology I devised specifically for this report. In addition, it certainly validates the selection criteria I implemented during the data-collection phase of the project (leading to a good set of usable excavated case-studies).
roomed farmsteads; and (ii) ‘[A-II]’, the somewhat larger, more luxurious farmsteads. It should however be underlined that the difference between both classes (farm and villa rustica) is limited to one single excavated example per sub-group, which partially undermines the statistical relevance of the class-difference.

The second group, Type ‘[B]’, is somewhat clearer defined, although it has its own intrinsic problems. Even though the majority of the cases were originally interpreted as farmsteads (mainly the examples belonging to the ‘[B-I]’ sub-type), some “outliers” are also present. Both ‘[B-I]’ and ‘[B-II]’ include an extraordinary example that was originally interpreted by the excavating archaeologist as a being a villa (completely different from the other examples in the “[B]-group”). This is in sharp contrast to my own typology, which places the “[B]-type” as a transitional building type between the ‘small scale farmsteads’ and the somewhat developed ‘luxurious Villa Rustica’. Due to the fact that the original researchers placed two of the examples within the outer-end of the hierarchical spectrum, it should be questioned of these two examples truly belong within the “[B]-type” (or if they should rather be interpreted as individual buildings belonging to a much larger, and (still) unknown villa-complex). This is especially the case for the extraordinary example belonging to the ‘[B-II]’-type, which could quite easily have been interpreted falsely on functional groups, originally belonging to a different type-group.

Concluding, we could therefore say that the “[B]-group” should still primarily be interpreted as a transitional phase between farmsteads and villae (rustica), but includes some examples that might be identified wrongly, based on the layout of their ground plan.

The third group, Type ‘[C]’, is interpreted within my own typology as a set of medium sized farmsteads, though possibly sharing some characteristics with a villa rustica. When looking at the interpretations provided by the original researchers however, the group of examples is even more mixed in character. The examples include farm-, farm / villa-, villa rustica- and villa-classes. The group literally includes all the different ‘denominators’ implemented by all the archaeologists incorporated within the dataset. Even though the farmstead-group is the most prominent, overall the group still seems to lean towards the interpretation as that of a (simple) villa. This is partially in line with the general interpretation as provided within my own new typology (as mentioned in the earlier paragraph): that of a luxurious villa rustica (i.e. a developed farmstead).

The fourth group, Type ‘[D]’, is the most well-defined group within the dataset. It clearly encompasses examples belonging to the villa rustica-type, as was the case in my personal typology. One outlier, the single farmstead labelled example within the ‘[B-II]’-type should therefore be seen as an incidental flaw (possibly a wrongly identified, or status underestimated, building complex).

The fifth and final group to be discussed, Type ‘[E]’, has a similar problem. Here the class mainly represents villa and villa rustica-classes, but again one of the cases was interpreted as belonging to a farmstead. A similar wrongful identification as above is probably the case.

When looking at the overall results of the ‘Type Source’-analysis, we can generally conclude that the ‘A-B-C’-typology as hypothesized in the ‘Type New’-analysis is supported and confirmed here: ‘[A]’ = ‘Farmsteads’ (both simple and more developed examples); ‘[B]’ = ‘Larger Farmsteads’ (as well as possible small ‘Villae Rusticae’); and ‘[C]’ = ‘Villa (Rustica)’ (large scale rural ‘Farmsteads’, with some luxurious status symbols).

Some specific differences between my ‘Type New’-classification and the ‘Type Source’-classifications where however apparent. Their presence can lead to two possible conclusions: (i) either the terminology implemented by the original researchers was much to generalised, leading to a combining of certain sub-classes (which were separately identified and included within my own typology), or (ii) the ground plans of both the farmsteads and villae rusticae were more fluent in ancient times than expected (certain

111 The architectural difference within the ground-plans of the two sub-classes is however quite subtle, limited two only one or two architectural features.
112 Cases belonging to the “[B]-type”, but interpreted as “Villae”: ‘[Ex-3.3]’ and ‘[Ex-4.1]’.
113 i.e. cases that developed into larger scale farmsteads.
building shapes being represented in both classes). Especially the later hypothesis would make the buildings ground plan a less suitable characteristic for type-identification.

Personally, I think a combination of both possibilities I probably the best explanation: originally there was a certain overlap in site-characteristics between ancient farmsteads and villae (rustica), caused by (only) a very subtle difference in building function. Such aspects are very hard to identify in the surviving archaeological evidence, and even harder to put into classification terminology used in archaeological publications. The overlap in both terminology and site-characteristics is, in my opinion, underlined by the fact that many (if not all) of the economically successful Republican farmsteads grew out to much larger, luxurious Villa complexes during later periods.

In the first part of this paragraph, a second line of inquiry was introduced: the incompleteness-principle. This aspect however varies considerably per typological class within the ‘Type Source’-classification. Still, it is mainly related to the farm / villa rustica division already stated in the Group-A part of this analysis. The measure of reliability (based on the completeness-factor) will therefore not be discussed in further detail within this sub-part of the analysis.

[‘Building Shape’]:

This aspect is related to the general shape of the uncovered complexes: ‘Rectangular’, ‘Square’, ‘L-shaped’ and ‘Trapezoidal’. Additional sub-classes, for shapes that are slightly different (and possibly site-type characteristic) are also provided. As the aspect is again closely related to the ‘new typology’ devised for this thesis, it can both be seen as an investigative tool as well as a checking-tool for the typology.

General overview

By looking at the general variety of building-shapes included within the data-set, three distinct shape-groups can be determined: (i) The gross of the cases (56% of the total) fall within the main, rectangular-building, shape-group. This group encompasses almost three times the cases included within group number two, which also seem to be better ‘preserved’. (ii) This group, interpreted as the ‘additional examples’, includes the buildings with square-ground plans (18%), as well as examples belonging to the L-shaped (11%) and different sectors-group (9%). (iii) The third, and last group, includes only two examples, interpreted as trapezoidal and “unknown” (in the tables labelled as ‘[XXX]’). As both only make up a mere 3% of the examples within the data-set, these ground plan-types are deemed as negligible.

The type-new division

The second part of this paragraph will act as a check of the (new) ‘building-typology’ I hypothesised in the first part of this chapter. To facilitate this analysis, the excavated examples will be grouped by their ‘building-shape’. Before the individual types will be addressed, some general remarks and observations will first be made: (i) Almost all of the type-groups have both rectangular- and square-rectangular-shapes as their main ground plans. (ii) Further particular shape-types are encompassed within the different sectors-group, which is limited to the ‘[E]’ and ‘[O]’-types; as well as the L-shaped buildings, which can solely be found within the ‘[B-I]’-type. The (type-)specific interpretations and conclusions following the ‘Type New’-classification will be addressed below, within the type-specific analysis:

The first group to be discussed is Type ‘[A]’, which mainly includes rectangular-shaped ground plans (some of which elongated), in addition to some square-shaped examples. This division is also apparent within the underlying subgroups (‘[A-I]’ and ‘[A-II]’). In general terms, these ground plan-types are in line with the interpretation of the ‘simple farmstead’-class as described in the earlier presented ‘type-
new’ classification. In addition to all these examples, a single low outlier is apparent within the ‘[A-]’-group is that of the L-shaped-example. This single case (‘[Ex-1.3]’), which is somewhat different from the other examples, might be interpreted as a transitional-phase between the ‘[A]’- and ‘[B]’-type (as shall be attested below).

The second group, Type ‘[B]’, should be interpreted as the true L-shaped example. Approximately 48% of the cases belong to this (main) ground plan-type. These types are added by a variety of lowered numbered classes, including square- and rectangular-examples. This variety in types begs the question how the ‘[B-II]’ sub-type is related to the (main) “[B]-type”. This sub-class consists of one single example, which is definitively not of the L-shaped type. This might raise doubtful questions like, e.g.: “Should the examples therefore be taken out of the ‘[B]’-type?” or “Are there still relating factors between them?”.

The third group, Type ‘[C]’, is a purely rectangular-shaped group. Of all the examples included within this group, only one case belongs to another shape-group (‘[Ex-5.2]’; ‘[C-I]’; square-shaped). Overall, the type-group is thus very consistent in shape. Within later paragraphs clarity of other class-characteristics will also be addressed.

The fourth group, Type ‘[D]’, is less balanced. Within this group the rectangular-classes are again the main group, although added by some square-examples. This last aspect seems to be a defining feature between the two sub-classes in the “[D]-group”. The first of these sub-classes, ‘[D-I]’, includes the smaller scale versions of the overall “[D]-class” (see ‘Building Dimensions’ paragraph, listed below), and are made up of a combination of both rectangular- and square-shapes. This, whilst the larger complexes in the “[D-II]” sub-type, are fully rectangular in shape. The division between the two could probably be seen as a link between the two sub-classes: simple versions starting off as a rectangular-building, but slowly developing into a larger rectangular-shaped complex (i.e. from simple farmstead to larger agricultural complex).

The fifth group, Type ‘[E]’, is labelled within my typology as ‘true villae’, which are mainly made up of various different sectors-types that together form a large building complex. This division of different sets of rooms, related to different functional uses, have been shown to be very characteristics for the later villa-complexes throughout Italy. Their prominence within the analysed dataset is therefore not surprising. The rectangular-shaped examples, which can also be found within the (main) type-group, should probably be interpreted as one single part of these different Sections (the case is then incompletely investigated or only partially recorded).

The sixth and final group to be discussed, Type ‘[O]’, has a whole range of varied shapes. This was expected at forehand, as this group of “unknown”-examples belong to the cases that could not be definitively placed within a specific typological group. The high variety in shapes is therefore mainly influenced by the fact that the examples were to incomplete or damaged for a specific identification.

**Group-C: The Type Source Division**

When comparing the variation in ‘building-shapes’ to the class-interpretation of the original researcher (i.e. ‘Type Source’), it immediately becomes apparent that “[Rectangular]” shaped buildings are the main class throughout all of the individual type-groups. In turn, this leads to the unfortunate fact that, due to the spread of this main type, the ‘building-shape-variable’ cannot be used as a definitive site-characteristic when distinguishing between ‘Type Source’-classes. The combination between the main building-type with additional (secondary) shapes, therefore become very important. These types will therefore be addressed in detail below.

Within the farmstead-group, the (main) rectangular-shaped examples (47% of total) are added by both L-shaped (18%) and square (12%) examples. Concluding for this group, we can thus say that the small rural complexes as presented in the farmstead-group are of a very varied and combined nature.

Sites originally interpreted as villae are just as (if

---

115 These examples are only found within the ‘[D-I]’-type.
not more) divers than their farmstead-counterparts. In addition to their general rectangular-shaped examples (38%), some of the included cases belong to both the L-shaped (25%) and rectangular (elongated)-type (25%). Based on this data, and the fact that both the here discussed farmstead- and villa-types (as defined by the original investigators; i.e. ‘Type-Source’) are not definitively characterized by their accompanying ‘building-shapes’, we can conclude that these site-types could not be labelled solely based on their available ‘building-shapes’. Additional ‘site-characteristics’ are therefore necessary to indicate functional-use of the building or site.

In essence, the third type-group consisting of pre-defined villa rustica-examples is very similar to the ones described above. The main ‘building-shape-class’ within the group is made up of rectangular-shaped cases (50%), added by a secondary square-class (21%). However, another additional class was also quite prominent in this type-group: the different sectors-type (14%). This ‘shape-class’ is completely restricted to the villa rustica-group.

Based on this information, the villa rustica-sites should thus be considered as mainly rectangular in shape, but in some instances (probably the larger, more developed examples) also made up of a multiple different building sectors. These later examples show relative close resemblance to the true (early Imperial) Villae-type. This outcome is somewhat surprising, as the analysis within the earlier mentioned ‘Group-B: The Type New Division’-paragraph concluded that this aspect of different sectors-shape was connected to the true villa building-type, and not to that of the villa rustica. The true question is therefore where this difference in the use of terminology comes from: “Is it connected to the wide use of the generalized ‘Villa Rustica’-label?” or “Is it due to a miss-interpretation of certain ‘archaeological’ or ‘architectural’ features?”.

As a final point within this sub-paragraph, the combination-groups (farm / villa and farm / villa rustica) will be addressed. Based on the evidence provided by the excavated cases included within these groups, we have to conclude that they cannot be definitively ranked under one of the main ‘building-shape-types’. As a fact, no class-characteristic shapes were found within both of the combination-classes (no L-shaped, trapezoidal or different sector-classes). These (un)specified classes will therefore be left out of the analysis, moving on to the next part of the analysis: the ‘shape-differentiation in chronological periods’.

['Building Courtyard']:

This aspect is related to the presence (or absence) and number of possible courtyards within the excavated case-studies. It includes courtyard examples of both internal and external nature, and of varying complexity. A listing of this architectural feature could potentially provide information on the functional-use of both the individual rooms connected to the courtyard, or even of the complete rural complex. An enclosed outside space could for instance be indicative of the hoarding of animals, related to certain agricultural practices, or simply as an outside residential-area, possibly a sign of luxury (within villae or villae rusticae).

By noting the difference in the number, placement and size of these courtyard, and linking them to the general shapes and building types included within the case-studies, possible site specific characteristics can be extrapolated. Besides the functional aspect, the appearance of courtyards within building complexes are able to have status-related connotations. The aspect will therefore be discussed here in detail, primary to find a possible relation between the presence of a courtyard and site-classification. The principle question to be investigated is then as followed: “Can a courtyard for instance be seen as a defining factor between ‘Farmsteads’ and ‘Villa Rusticae’?”.

General overview

When looking at the overall picture as provided by the results in the analysing graphs it becomes clear that there are almost equal amounts of buildings including courtyards, as there are buildings without any sign of this architectural feature (both app. 45%; the remaining 10% remains unclear.
in their definition). From the group that does include this opened (or partially closed-off) architectural feature, most of the examples include (only) a singular courtyard (37%). The appearance of multiple courtyards within a single complex is quite low, only in 6% of the cases. Multiple courtyards (i.e. more than two) are even scarcer, present in just 3%

When addressing the “Unclear”-group, we must conclude that their presence within the dataset is quite low, a mere 12%. This is somewhat surprising, considering the high amount of incomplete examples as to be mentioned in one of the coming paragraphs within this second Focus-Point (see ‘Building Completeness’). This leads to the conclusion that, how ‘disturbed’ or ‘incompletely’ published the excavated site might be, the original researchers are always able to define if the building includes a courtyard area or not. If the below mentioned analysis, in which the typology is compared to the presence of courtyards, then indeed provides a link between the aspects, this ‘courtyard’-presence could quite well be a way to interpret excavated cases.

The type-new division

This part of the courtyard-analysis will compare the presence or absence of courtyards in relation to the site-types as devised in my “New Typology” (based on the general ground plan of the examples). Before the types themselves will be discussed, one general remark should be made. While analysing the aspect, the presence of the ‘possible courtyard’-group (i.e. the uncertain group) seemed to be divided equally amongst the (main) type groups. Percentage wise, they encompass approximately 10-15% of each main building-type. I am therefore of the opinion that this ‘Uncertain’-group does not (negatively) influence or bias the overall results of the analysis. The outcome of the other groups (with or without a courtyard) should therefore be considered as trustworthy.

When looking at the first group to be discussed, Type ‘[A]’, we can see that most of the examples included within this type are without any evidence for the presence of a (definable) courtyard (62.5%). In contrast, only a small amount of the cases does include a single (outer) courtyard as a architectural feature, a mere 25% of the cases. Within this class no ‘multi-courtyard’ examples are present. The possible courtyard-group is also quite limited (just 12.5%), underlining the reliability of the types outcome. Both sub-groups (‘[A-I]’ and ‘[A-II]’) included within this main type follow the overall line of characteristics. The only apparent difference is the slightly higher amount of cases belonging to the single courtyard-type within sub-type ‘[A-I]’.

The second group, Type ‘[B]’, consists mainly of cases with a single courtyard (app. two-thirds of the examples). The other classes included within this type, those without a courtyard or with a possible courtyard, both fall within the accepted limits. No examples of multiple courtyards were defined. The sub-types included within this group both behave quite differently. Sub-type ‘[B-I]’ seems to truly belong within the “[B]-type”, sharing most main features (75% ‘with’; 8.33% ‘without’). The second sub-type, ‘[B-II]’, is completely different (although it only including one single example). It consists of a no courtyard-example. Based on this information, it is quite questionable if this last sub-type truly belongs to the ‘[B]-type’. Or if the absence of the courtyard in this class should merely be seen as a slight distinction between the two sub-types.

The third group, Type ‘[C]’, seems to be a quite difficult group to interpret. In general lines, the type includes equal amounts of with a single courtyard (50%) and

117 In exact numbers the group ‘with’ courtyards (46%) is slightly higher than the one ‘without’ (43%). A three percent difference in such a restricted dataset is however quite insignificant, especially when keeping in mind a mere 34 excavated cases were included within the analysis.

118 Always staying firmly below the 25% mark, a percentual-boundry I deemed as still being acceptable.

119 If the “[Possible courtyard]”-group would have had higher relative amounts, the division between ‘with’ and ‘without’ courtyard would have become uncertain. Cases labeled as ‘Possible’ could then have belonged to either class, without any way of re-evaluating them at a later stage. This would then bias the reliability of the whole dataset.
without a courtyard (50%)\textsuperscript{120}. The sub-types included within the main group are however completely different: ‘[C-I]’ consists for one third of single courtyard and two thirds without a courtyard examples; ‘[C-II]’ consists completely of single courtyard examples, and ‘[C-II (or E)]’ completely of possible courtyard cases. Of course, it should be mentioned that the last two of these sub-classes include a relatively low amount of excavated cases (both only a single case). This makes it questionable how important they are for the identification of the (main) “[C]-type”, as well as if a subdivision between the three sub-types can really solely be based on the presence or absence of courtyards as a defining characteristic.

The fourth group, Type ‘[D]’, is the most clear-cut group within the analysis. This type should most certainly be interpreted as a type of rural buildings that include (or was possibly even centred around) an adjacent or internal courtyard. More than three quarters of the examples included within this type have a courtyard, of which approximately 20% even has two (or multiple) examples. The relative low amount of cases without courtyards (17%) can be disregarded. Cases labelled as possible are unknown within this class. The underlying sub-classes within this type underline the importance of the courtyard-characteristic within the “[D]-type”: three quarters of the ‘[D-I]’-type is labelled as ‘with single courtyard’, whilst only a quarter is labelled as ‘without’. The other sub-group, ‘[D-II]’ is even completely made up of ‘with courtyard’-cases, and divided equally in both ‘single’ and ‘multiple’ courtyard-classess. Within the analysis of these sub-classes, it is important to underline that the true ‘multi-courtyards’-types are restricted to the ‘[D-II]’-class (therefore probably interpreted as expanded and developed examples of the earlier mentioned ‘[D-I]’-type).

The fifth group, Type ‘[E]’, again shows a high amount of excavated cases that include courtyard areas. Almost two thirds of the incorporated examples have a courtyard. Even more important is the fact that, of the cases included, all have at least two courtyards (and in some cases even more\textsuperscript{121}). Unfortunately, in addition to this first two classes, there is also a relatively large amount of the cases is labelled as either having ‘no courtyards’ (29%) or ‘possible courtyards’ (14%). Based solely on their ground plan (see “Type New”), the “[E]-type” was originally interpreted as ‘villae’-examples. However, when looking at the presence or absence of courtyards, the group includes somewhat surprising (excavated) examples: The gross of the examples includes a variety of ‘multiple courtyard’-examples, whilst some others are completely void of any evidence for this architectural feature (some cases are possibly too damaged to give definitive information on the aspect).

The sixth and final group to be discussed, Type ‘[0]’, should actually be seen more as a ‘rest’-group than an actual type. None of the examples within this group can be said to incorporate any evidence for an ‘inner’ or ‘outer’ courtyard. This however, is probably not a defining feature for the cases included within the group, but likely a consequence of the fact that the gross of the cases discussed here are “disturbed” and / or “incomplete” examples. It is therefore not surprising that the ‘without’-class is the main (and relatively only) class within the given results. As most of these cases are missing vital parts of their ground plan, any re-evaluation based on the ‘presence’ / ‘absence’ of a courtyard futile. The absence of courtyard-information within this group does not mean that there was no courtyard present in ancient times. It only means that the architectural feature was not visible (or reconstructable) from the scattered set of information the publications provided on them.

What than can we conclude from this comparison between the ‘absence’ and ‘presence’ of courtyards, in relation to the proposed site-typology? As we have seen there seems to be a quite strict and clear-cut correlation between build-

\textsuperscript{120} The ‘possible’ courtyard cases fall within the accepted limits, and therefore do not influence the general interpretation of the classes. In addition, no ‘multi-courtyard’ examples were present within this type.

\textsuperscript{121} Both these ‘courtyard’-classes (i.e. ‘two courtyards’ and ‘multiple courtyards’) encompass approximately one third of the total examples.
ing-typology and the ‘presence’ or ‘absence’ of a courtyard. For example, the excavated cases belonging to the ‘[B]-type’ do indeed most of the time include a single courtyard, those of the ‘[A]-type’ are almost always without the architectural feature, and the ‘[D]-type’ is completely with one or two courtyard-areas.

This correlation between the two features is however not that surprising, as my typology was based on the ground plan-layout of the excavated examples (some of which clearly show a courtyard as a defining factor). By discussing the variables, the analysis underlines the importance of a (“simple”) visual inspection of the archaeological features, which includes the listing of features like ‘General Building Shape’, ‘Presence of Courtyard’, ‘Building Dimensions’, etcetera. The presence of ‘multiple courtyards’ seemed to be even more defining, and was included solely in some of the types (‘[D]’, ‘[D-II]’ and ‘[E]’).

Some of the other type-groups however, like ‘[C]’ and ‘[E]’, seem to have an almost equal division between ‘with’ and ‘without’ courtyard. These groups are somewhat more elusive to grasp, but are proposed to be interpreted as followed: the inclusion of a courtyard within buildings belonging to such a type is a possibility, but evidently not a necessity. Such a dividing factor (within a ‘main’-type like ‘[C]’) could quite possibly be related to a process of internal development within the class itself. Simpler sub-types for instance, could lack any evidence for a courtyard (e.g. as visible within the ‘[A-I]’ or ‘[C-I]’-class), whilst the later more developed sub-classes almost always do include a courtyard as a definable architectural feature (e.g. ‘[A-II]’ and ‘[C-II]’).

[‘Building Dimensions’]:
This aspect is related to the measurements of the excavated complexes, and their encompassing rooms (both inside and outer courtyard area). The importance of this variable can be found in the fact that almost all of the published excavation reports (or otherwise aimed publications) are accompanied by a general ground-plan of the excavated remains. This factual representation of the archaeological data is sometimes accompanied by a scientific reconstruction of the whole complex (especially in the cases where parts of the building are missing due to incomplete uncovering or taphonomic processes).

Furthermore, ‘building dimensions’ seem to be one of the aspects that might bridge the gap between ‘excavated-‘ and ‘survey-data’, as both methodologies provide spatial information on the range of artefacts encountered “in” or “on” the ground. Within my analysis the variable therefore takes a prominent role.

General overview
One of the most promising ‘site’- or ‘class’-characteristics to be defined in this thesis is that of ‘building dimensions’ (both ‘general’, ‘internal’, ‘external’, and ‘total’). This mainly, as it is one of the variables that might be “easy” to compare data-sets from ‘surveyed’ and ‘excavated’ sites (as both define a certain site-area122). We will therefore first focus on the buildings dimensions as a whole.

In general, 97% of the excavated cases is provided with defined dimensions (collected either from the text of the publication, or measured personally from the published field-drawing). Luckily only one of the cases was too severely disturbed to provide this kind of information (‘[Ex-10.5]’). This fact makes the conclusions to be drawn from this analysis quite straightforward and reliable. After having ordered the cases in a ‘point-scatter’-graph, an increasing line of building-dimensions can be distinguished123.

Two main groups are apparent in the data-set, based on their average ‘main-building-dimensions’: (1) 10 x 10 – 20 x 20 m² (18x; 53%) and (2) 10 x 20 – 35 x 30 m² (9x; 26%). Although located both quite close to each other, a distinct break between the classes could be defined (and is even visually apparent). Based solely on the dimensions, these

---

122 i.e. ‘site-extent’ and ‘scatter-size’.
123 In other words: the bigger the buildings gets, the scarcer the number of cases belonging to this group becomes.
two groups would be interpreted as ‘small farmsteads’ (or a combination of (1) ‘small farmsteads’ and (2) possibly slightly larger ‘Villa Rustica’). A definite interpretation within one of these classes however, deems further analysis in the later paragraphs (‘Group-B’ and ‘Group-C’).

The third group apparent within the graphs follows the direct development we have already seen within groups (1) and (2). It is again somewhat larger, both in ‘width’ and ‘length’: 35 x 35 – 40 x 50 m$^2$ (5x; 15%). The overall percentage of cases belonging to this group is however much larger. In relation to groups (1) and (2) (as defined above), the examples belonging to this (3) dimension-group could possibly be interpreted as either large ‘Farmsteads’ / ‘Villa rusticae’, or full-sized ‘Villa’-complexes.

A completely developed and luxurious ‘Villa’ can however be only truly distinguished in the last group (4): an outlier of 50 x 70 m$^2$ (1x; 3%). This true “Luxurious Villa-complex” is much larger than the other cases, a truly different building-class.

**The type-new division**

To address the dimension classes per building type developed especially for this thesis, the individual classes shall first be described individually. The outcome of this analysis can then be compared to provide a relative overview.

The cases belonging to Type [A] form a densely packed group, with an average dimension of 12 x 15 m$^2$. The underlying sub-classes have a distinct relation to each other: [A-I] can be divided into two size-groups$^{124}$, one larger than the other. It is the ranges between these two groups, in which the cases belonging to the [A-II] class fall$^{125}$.

The second group, Type [B], is less unitary. Here we can see a distinct increase in the building dimensions of the [B-I]-type, from 10 x 15 m$^2$ to 25 x 35 m$^2$ (equally placed and leading to an average dimension of 20 x 20 m$^2$ for this sub-type). The single case belonging to [B-II] is completely different, app. 10 x 30 m$^2$ and thus ‘elongated-

rectangular’ in shape. This distinct difference between the two sub-classes makes it questionable how representative the average dimensions of the “[B]-type” are, but based on the numbers it would be 18 x 25 m$^2$.

The third group, Type [C], is much more uniform in their dimensions. With an average of app. 13 x 17 m$^2$ the cases are comparable to those of the “[A]-type”, both much smaller than the “[B]-type” examples. Within the sub-classes [C-I] makes up the high-end of the group (18 x 21 m$^2$), whilst [C-II] (and [C-II (or E)]) make up the low end (12 x 15 m$^2$)$^{126}$.

The fourth group, Type [D], is again a very diverse group (with an, slightly uncertain, average of app. 25 x 37 m$^2$). This diversity is caused by the strikingly difference in dimensions within the sub-groups, which stretch quite a range in surface area. The first sub-type, [D-I], shows an up-going line of cases (between 17 x 15 m$^2$ and 36 x 36 m$^2$), leading to an average of approximately 25 x 27 m$^2$. Unfortunately, this is only comparable to one of the [D-II]-examples ([Ex-8.2]; 32 x 19 m$^2$). The rest of this sub-group are much larger, with an approximate average of 30 x 47 m$^2$. The “[D]-type” should thus be seen as including two distinct ‘building-classes’, each with their own ‘dimensional-classes’, in line with the typological sub-division as described in my personal classification (“Type-New”).

The fifth group, Type [E], is also much dispersed. Within it we can define a main of app. 38 x 45 m$^2$ comprised of two excavated cases, and have a much larger, ‘singular’ outlier of 48 x 71 m$^2$. The cases belonging to these “Villae” are thus spread over a large area, but a definitely much larger than all other examples.

As expected, the sixth and final group to be discussed, Type [0], is too divers to be really interpreted. The severe damage to the ground plans made definitive analysis of the dimensions of the building quite impossible. It is surprising however, that one of the examples included within this “unknown”-group ([Ex-10.2]) seems to have

$^{124}$ Including: (A) ”[Square]” examples of app. 10 x 10 m$^2$, and (B) ”[Rectangular]” ones of app. 10 x 25 m$^2$.

$^{125}$ Consisting of ”[Rectangular]” buildings of app. 10 x 15 m$^2$.

$^{126}$ The “[C-II (or E)]”-example should be labeled under the “[C]-type”, based solely on its dimensions (12 x 16 m$^2$). This is much too low for a ‘true villa-class’, as will be seen later on.
similar dimensions as the “[E]-type” villa-group (which makes an interpretation of the case as a ‘villa’ one of the possibilities). All other cases seem to be comparable in dimensions to the “[A]”- and “[C]-type”, but further analysis of this is impossible due to their incomplete nature.

When looking at the general picture provided by the building’s dimensional classes we can conclude that they bare comparison to the site-interpretations provided by my personal typology (“Type-New”). “Type [A]” and “[B]” can indeed be seen as the “Farmsteads”: “[A]” being the smaller version, and “[B]” the larger one. The “[C]-type”, originally interpreted as “Villa Rustica”, is very comparable to the “[A]-type”. This underlines the link between small “Villa Rustica” and “Farmsteads”. Larger “Villa Rustica” can probably be found in the “[D]-type”, as it shows examples with larger dimensions (one even similar to the “[E]-type”). The last group, “Type [E]”, indeed visualizes the ‘Villa’-group, but has a much wider range than originally expected.

**The type-source division**

When comparing the dimensions of the cases to the original interpretation of the archaeological researchers, we can see that the “Farmstead” and “Villa Rustica” are very comparable. None of the classes seems particularly distinguishable from another.

The ‘Farmstead’-group shows a very divers image. Four dimensional groups could be distinguished:

1. (1) 5 x 5 – 20 x 20 m²; (2) 25 x 30 m²; (3) 28 x 6.5 m² (single example); and (4) 50 x 38.5 m² (also single example). Both group (3) and (4) should be interpreted as outliers. In essence Group (4) is much larger in its dimensions, than all the other cases included in the “Farmstead”-group. In addition, group (3) simply has a much different shape (a thin ‘elongated’ building). The “Farmstead”-group is thus separated in two groups: ‘small’ and ‘large’ farmsteads. The main of the class should probably be found in the first two groups, with an average of approximately 15 x 15 m².

   The examples belonging to the ‘Villa’-group are spread too much to be able to speak of it in terms of a single characterized group (based solely on dimensional aspects). Whilst we can see a small grouping of cases at the lower end of the scale, there is also a very high example on completely the other end of the graph. This distribution in sites can quite possibly be explained by the inclusion of partially damaged and only partially excavated “villa”-sites. If only a small amount of the buildings (or solely the outbuildings) of a “villa” were excavated, the examples would be placed falsely at the low end of the graph (just as we see here). A true, consolidated average dimension could thus not be distinguished (but would possibly fall in the range of 30 x 35 m²).

   The ‘Villa Rustica’-examples are grouped in a more definitive order. Here we can distinguish four dimensional sub-groups: (1) 10 x 17 m²; (2) 15 x 25 m²; (3) 25 x 25 m²; and (4) 33 x 45 m². Groups (1) and (3) seem to be the peaks within the overall type, of which the first provides the average dimensions for the overall “Villa Rustica”-type (15 x 25 m²). The other two groups, (2) and (4) should probably be interpreted a transitional phases, of which the later shows a definitive resemblance to the “Farmstead”-type.

   Both of the sub-groups (‘Farm / Villa’ and ‘Farm / Villa Rustica’) show too much comparison to both the “Farmstead” and “Villa Rustica”-types. They therefore either belong to large “Farmsteads”, or medium sized “Villa Rustica”. It is however impossible to truly define or re-evaluate the cases based solely on building dimension. There is just too much overlap within the here described groups.

**[Building Surface - Total]***

**General overview**

Within this fourth sub-part of the ‘Building Dimension’-analysis the cases included within the data-set will be grouped based on their ‘Total surface area’. This includes the combination of both the ‘internal’ and ‘external’ rooms. Two definitive peaks could be distinguished within the
graph: (i) the ‘smaller buildings’, app. 100 - 200 m² (29%), and (ii) a group of ‘bigger complexes’, app. 650 - 700 m² (12%). In comparison, the smaller examples are far more common (63% of total), leading to a “main” building surface of 0 - 350 m².

Additional groups, consisting of only one or two examples, could also be defined: (iii) 1,050 - 1,450 m² and (iv) 2,000 – 3,600 m² (both app. 7%). These should probably be interpreted as the large ‘villa’-complexes. Whilst the smaller examples are better interpreted as ‘small’ to ‘medium’ sized ‘farmsteads’ (or ‘Villa Rustica’). One example ([“Ex-10.5”]) unfortunately provided inadequate information to calculate a ‘total building surface’ (either due to low amount of published data or a very incomplete ground-plan), and will therefore be left out of the analysis.

The information collected from the analysed graphs and tables, as described above, led to the following division of ‘size-groups’: (A) excavated buildings with an average size of 100 - 200 m² (10%; 29%), probably interpreted as ‘small farmsteads’; (B) buildings covering an area of app. 200 - 350 m² (12x; 35%), which should be interpreted as ‘medium sized Farmsteads’ (or possible ‘Villa Rustica’); (C) rural complexes with either an average of 650 - 700 m² (4x; 12%) or 500 - 800 m² (6x; 18%), interpreted as ‘large Farmsteads’ or ‘Medium sized Villa Rustica’; and the final, group (D), which include the “exceptions to the rule”, all of them complexes over 1,050 m² in size (5x; 15%), interpreted as the truly large and well developed ‘Villa’-complexes.

The type-new division

To analyse the relationship between the typological classes I defined (“Type-New”), with the ‘size-classes’ encountered in the above mentioned ‘Group-A’ (see above), the individual type-classes will be discussed accordingly.

The first group to be discussed is Type ‘[A]’, which has a “main” size of approximately 0 - 250 m², made up of two consecutive groups. These seem to coincide with the subclasses that were concluded from the architectural ground-plans (i.e. type ‘[A-I]’ and ‘[A-II]’). The lower-end of the “[A]-type” are represented by the ‘[A-I]’ sub-type (0 - 200 m²). On the other end, the bigger sized buildings are represented by the ‘[A-II]’ sub-group (100 - 250 m²). Between the two classes a distinct overlap is also apparent.

The second group, Type ‘[B]’, has a main building area of app. 0 - 350 m² (71%). As was the case with the “[A]-type”, the two sub-types again represent two consecutive ‘size-classes’. The first one, ‘[B-I]’, visualizes the lower-end of the group (0 - 300 m²; 66%), whilst ‘[B-II]’ represents the higher-end (300 - 350 m²). Two other interesting aspects can be deduced from the analysed data. (i) Sub-type ‘[B-II]’ nicely fits within the size-ranges of the ‘[B-I]’-group, but consists of only a single excavated case. This makes their reliability somewhat low. The other aspect is (ii) related to two of the high-end outliers included within the ‘[B-I]’-group (app. 650 - 800 m²; 33%). They also beg the question if the ‘[B-I]’-group truly belong to the “[B]-type” (or included within this type due to a bias in the data-set).

The third group, Type ‘[C]’, is made up of case-studies with a “main” (average) of 100 - 350 m². The definable line of sizes within the group is certainly not as consistent as the “[A]”- and “[B]”-types (as discussed above). Sub-types ‘[C-II]’ and ‘[C-II (or E)]’ can be placed in the middle of the “[C]-type” (150 - 200 m²), whilst the ‘[C-II]’-type stretched the full range of the overall type-group.

The fourth group, Type ‘[D]’, has a slightly higher main 500 - 700 m² (50%). In general, this type is very diverse in character, which means the “main” could be seen as the only centralized aspect. The sub-types however, do make up a consecutive line in ‘size-classes’. The ‘[D-I]’-type group can be identified as the beginning of the type, possibly interpreted as ‘small’ to ‘medium sized Villa Rustica’. The ‘[D-II]’-group makes up the other end of the type, with large examples (1,100 – 1,450 m² (37.5%) and 2,500 – 2,550 m² (12.5%), possibly identified as true ‘Villa’ (or extremely large ‘Villa Rustica’). Although the ‘total building sizes’ of the individual cases included within this type differ quite significantly, their overlap does underline the connection of the cases within the type-group.

The fifth group, Type ‘[E]’, is a very broad type-group, with very high ‘size classes’, averaging between 2,000 – 3,600 m² (66%). Although very dispersed in nature, the large ‘building sizes’ are found solely in this type-class.
Together, this leads to the interpretation of the type as true ‘villa’-examples. One problematic case is included within the ‘[C-II (or E)]’-group (case ‘[Ex.6.2]’). This example, having a size of app. 150 - 200 m², differs strikingly quite much from the other cases included in the type-group. This single case should thus probably be excluded from the original ‘[C]-group’ (based on the total surface area encompassed by the single example).

As the cases included within the sixth and final group, Type ‘[0]’, are only grouped together on the basis of their typological-uncertainties, they could quite possibly be re-evaluated based on their general ‘site-sizes’. The gross of the examples, covering an area of app. 50 - 250 m² (60%), could probably be included within the ‘[A]’- or ‘[B]-type’. The larger additional class, 650 - 700 m² (20%), most probably to the larger ‘[D]-type’.

The type-source division

As a check of my of personal classification typology ("Type-New"), the ‘Farm’ / ‘Villa’-interpretations as provided by the original researchers will be compared to their ‘total building surfaces’. The excavated examples included within the ‘Farmstead’-group have a main size of approximately 0 - 300 m² (77%; with a distinct peak of 0 - 200 m²). In addition to this “main” class, the data-set included two extreme outliers: (i) 500 - 700 m² (15%) and (ii) 2,000 m² (8%). The sizes of these two examples fall quite distinctively outside of the range of the total group, making their interpretation as a ‘simple farmsteads’ very uncertain.

The number of cases included within the ‘Villa’-class is much lower than the others (just four examples). This leads to a less definitive grouping of the excavated examples. With some confidence however, the main size of the group could be defined as 100 - 350 m² (75%). This is added by a single high example of app. 3,500 m² (25%; ‘[Ex.9.1]’). If both groups indeed resemble the sizes of ‘true villae’, they should be interpreted accordingly: the lower examples as ‘very small scale simple villa’ and the higher as ‘extremely large and luxurious villa’.

The last group, ‘Villa Rustica’, can be sub-divided into two “main” groups: (i) 100 - 250 m² (57%) and (ii) 650 - 700 m² (21%). These should subsequently be interpreted as ‘smaller’ and ‘larger Villa Rustica’. The main groups are added by a low amount of examples with extremely high ‘building sizes’: 1,050 – 1,450 m² (12.5%) and 2,500 – 2,550 m² (2%). These cases should probably be interpreted as true ‘Villa’, instead of ‘Villa Rustica’. It is thus quite possible that the original researchers implemented the ‘villa’-terminology less strictly than was intended within this thesis. This aspect therefore underlines the importance of defining your site-classes in a very detailed manner, mentioning all personal definitions and reasoning behind the site-typology.

In general terms with could thus conclude that the ‘total building sizes’ indeed represents a certain sub-division of the excavated examples, as already implemented within the defined ‘site-classes’. Some re-evaluation of the cases or their terminology should however be undertaken. Whilst the ‘Farmstead’ and ‘Villa Rustica’-group show definite resemblance: ‘medium sized farmsteads’ being accordance with the ‘smaller Villa Rustica’-examples. Both of these classes do indeed include much larger outlying cases, which are generally thought to belong to the true ‘Villa’-class. This last class however, is not as well defined. It seems to miss a lot of the examples that, based on size alone, should probably be interpreted as belonging to the ‘Villa’-group. These however, have been sub-divided into two other classes. The original terminology implemented by the original researchers might therefore not be as useful when implemented very strictly.

Based on the above mentioned ‘size-divisions’, the combination-classes could partly be re-defined. The case originally interpreted as a ‘Farm / Villa’ had an app. size of 300 - 350 m², and should therefore either belong to a ‘medium sized Farmstead’ or ‘small Villa Rustica’. The other two examples, originally interpreted as a ‘Farm / Villa Rustica’ are somewhat larger (750 - 800 m² and 1,150 – 1,200 m²), and should probably be interpreted as a ‘medium to large sized Villa Rustica’ or a ‘medium sized Villa’.
[‘Find Architecture’]:

This aspect is related to the Architectural evidence encountered on site. This includes all kinds of objects or materials connected to the building itself, which could possibly be related to the buildings functional use. Within the discussed case-studies, this evidence can range from simple building materials, e.g. bricks or (roof)tiles, to more functional architectural elements, e.g. bathtubs and threshing floors.

Surviving ancient sources have stressed the importance of oil and wine production in Roman farming, for which the complexes must have included specific facilities for the processing and production of these products. In some examples, special pressrooms (i.e. ‘torcularia’) were incorporated within the floor-plan of the complex, used for the various processes of extraction and refining. In addition to these production related features, luxury indicators (e.g. mosaics, wall paintings or peristyles) can also be found within the more developed excavated buildings.

General overview

When looking at the general division of architectural evidence within the excavated data-set, we can see that this ‘Find-group’ is mainly made-up of cases including ‘bricks’ (29%), ‘roof tiles’ (35%) and ‘tufa blocks’ (29%). These objects, generally related to the walls and roofing of the buildings, are regarded as quite ‘irrelevant’ in a functional sense. They solely provide insight into the fact that the buildings were made of durable material, and were permanently roofed. As far as functional use goes, from this can only be concluded that we are dealing with somewhat sustainable housing, not of huts for seasonal use (made of perishable materials). The relative amount of these architectural classes is however distinctively higher than the other groups, ranging from 29 - 35% to 18 - 21% (within the included excavated cases) of lower classes. This makes it quite unlikely for a site-class to be identified (solely) on an architectural element.

In addition to the above mentioned “main”, to additional (though distinct) groups can be defined: ‘Additional Find-class (A)’, which includes the architectural types ‘Drainage Channel’ (“Agricultural”), ‘Lime blocks’ and ‘Opus Reticulatum’ (“Walling”)\(^{127}\), ‘Mosaic’ (“Luxury”), and ‘Olive-press’ and ‘Settling Tank (“Production”), all present in relative amounts ranging from 18 - 21%. And, ‘Additional Find-class (B)’, which mainly includes the architectural type ‘Millstone’ (“Production”), as well as a much lower amount of non-functional interpretative classes (e.g. ‘Imbrex’ and ‘Stone support’). The architectural object-types make up a relative 15% of the cases.

The true “Rest”-class of the architectural object-group is made up of a relatively (extremely) large group of additional architectural-types: 119 entries of individually mentioned architectural objects, mainly falling under the “Walling”-type. In total, this is approximately 80% of the total amount of architectural object-entries (divided into 65 different architectural features). These features are however only present in a very low amount of the cases (only 3 - 12% per architectural-type).

As a further line of inquiry, the material classes were also compared within distinct pie-charts. Within these graphs, the percentages do not correspond to the relative number of cases that include the object-type (as was the case above), but to the overall percentage in which it is present within the data-set\(^ {128}\). In turn, this gives insight into the spread of the material classes: if the relative amounts are low, it is less likely that the object-type is class-significant.

\(^{127}\) Of course, we could go into the details surrounding the use and ‘status’-indication of the specific “floor” and “walling”-types, to relate this to the site-classification. This however goes far beyond the reach of this thesis, as well as my own personal knowledge on the subject. Because of this reason, the aspect will be left for further research.

\(^{128}\) For example: If in total there are 200 entries on architectural material, of which 20 are on tile-fragments, they get a 10% piece within the Pie-chart. This is not directly related to the amount of cases in which the object-classes are present, as multiple entries can originate from the same case-study.
When looking at the overall results within the architectural data-set, we can distinctively see that most of the classes are to be placed within the ‘low’-group [0 - 24%]. This labels the classes as relatively low and diversely spread, all approximately one-twentieth of the total ‘architectural entries’. The “Rest” of the material classes make-up less than 1.9% (one-fiftieth) of the cases. These extremely low entry-amounts however, together make-up a total of 56% (approximately half of the cases).

**The type-new division**

In the following discussion of the architectural material (as well as those of the following other material classes), not all individual object-types will be brought forth. Only the functional specific and interesting classes will be discussed, as they are important for the definition of functional assemblages. These might not in all cases be the most prominent groups. For the actual numbers of all individual material classes, see **Attachments Pt. IV – Tables and Graphs**.

In addition to these histograms (outlining the actual number of cases mentioning the specific material object-classes), pie-charts presenting the relative number of data-base entries for each class are also presented. This can later on be compared to the overall division of the cases within the ‘general functional classes’.

The architectural material classes will now be discussed in line with the “Type-New” building-classification. First off is **Type [A]**. The corresponding object-types within this class consist mainly of ‘walling’ (Opus Quadratum in combination with Tufa blocks; present in 25-50% of the cases) and ‘roofing’ (tiles; present in 25%) evidence. Sub-type ‘[A-I]’ seems to follow the “main” quite well, as thus ‘[A-II]’. This later group is however supplemented by additional (singular) examples of ‘Drain-channels’ (“production”) and ‘Heart / Ovens’ (“fireplaces / production”). When looking at the dispersion of the main types within the overall pie-charts, we can see that even the highest of classes [Imbrex [7%] and roof tiles [7%]] are only present within the lowest-group [0 - 25%]. The “Rest”-entries, a total 48%, consist of material object-groups that provide only one single entry per type. Overall, we can thus say that the architectural evidence for the “[A]-type” is not very convincing.

The second type to be discussed, ‘[B]’, is primarily made-up of ‘bricks’ (“walling”; 43%) and ‘tiles’ (“roofing”; also 43%). This is added by a secondary, somewhat lower group of ‘mosaic’ (“luxury”; 29%) and ‘Settling Tank’ (“production”; 29%). Both the sub-groups, ‘[B-I]’ and ‘[B-II]’ seem to follow this line quite precisely, although the latter has some further “luxury”-related indicators: a ‘Bath’ (“production / luxury”) and ‘travertine’ (“luxury”). When looking at the pie-charts it becomes again quite clear that the relative amounts in which the ‘architectural object-classes’ are present as individual entries within the data-base are quite low: ‘Mosaic’ and ‘Settling Tank’ only 4%, ‘Rooftiles’ 6%, and the combined “walling”-class a total of 28% (4 – 6% per individual object-type). The “[Rest]”-group, comprising 56%, are all made up of object-types with a singular entry in the data-set. Concluding for this second building type we can say that, although the features themselves are beginning to be more clearly defined (e.g. the “luxury indicators”), their relative amounts still stay quite low.

The third type, ‘[C]’, shows distinct evidence for “production” (i.e. pressing and milling). The architectural evidence mainly includes ‘Millstone’ (“production”; 67%) entries. This is added by a (relatively quite large) group of

---

130 Information considering ‘walling’ and ‘flooring’, for instance, are probably not site-type specific, and will only be addressed in certain specific cases.  
131 This ‘relative number’ is defined through comparing the number of entries for a specific object-class, with the total amount of architectural (or other material class) entries. So, in short: not the percentage of cases including them, but the total percentage of entries allotted to type-classes.  
132 In general, a high variety within the pie-charts means that it is quite difficult to attest type-characteristics based on the architectural-material within a ‘type-class’.  
133 The evidence on the sub-types: ‘[B-II]’, made-up of the “low” groups ‘Settling Tank’ [5%], ‘Rooftiles’ [7.5%], and a mixed group of “walling”-material [5 – 7.5%; Total = 30%]. The “[Rest]” is a total of 43% - all one entry per object-class. ‘[B-II]’, made-up of the “low” groups ’Baths’ [12.5%], and ‘Mosaic’ [12.5%]. The “[Rest]” is a total of 75% - all 12.5% per object class.
‘Drainage-channel’ (“agriculture”; 33%), ‘Olive-presses’ (“production”; 33%), and ‘Tablinia’ (“interpretative finds”; 44%). Although the sub-types seem to follow the general outline of the main class, some further comparisons can be made: Between ‘[C-I]’ and ‘[C-II]’ we can see a distinct conformity in the presence of ‘Millstones’ (67%), whilst in the cases of ‘[C-I]’ and ‘[C-II (or E)]’ this is present between the ‘Drainage Channel’ (33%) and ‘Olive Presses’ (33%). One of the special finds / categories with this group is the ‘household altar’ (“religion”), included within the ‘[C-II]’-class. Within the pie-charts we can see that, although the individual “production”-related object-classes are still quite low (‘Drainage-channel’ = 5%; ‘Millstone’ = 9%; and ‘Olive-press’ = 5%), together they make up one fifth of the total data-entries of this class. The “[Rest]”-group is a total of 52% (all 0.5 - 1x entries per object-class). For this, it can be concluded that the production group is quite significant element in this “[C]-type”.

The fourth class, ‘[D]’, is comprised of a collection of different architectural-elements and functional-class. In the group we can see evidence for “agriculture” (‘Drainage-channels’; 33%), “production” (‘Millstone’, ‘Olive-press’, ‘Tub / Basin’; ranging from 33 – 50%) and “luxury” (‘Mosaic’; 33%). The division of these functional classes can be found in the sub-classes: ‘[D-I]’ solely includes the evidence for the “agricultural” (‘Drainage-channel’) and “production” (‘Millstone’, ‘Olive-press’, ‘Settling-Tank’, ‘Tub / Basin’)135. Whilst the other sub-group, ‘[D-II]’ includes evidence for both “production” (‘Olive-press’) and “luxury” (‘Marble-dado’, ‘Mosaic’ and ‘Baths’). It thus seems that the second type is to be interpreted as slightly more “luxurious” than the first, although both unmistakeably are mainly “productional” in their use. The pie-charts produced from this data provide a similar, also divided picture. The object-classes included all have entry-levels ranging from 3 – 5% (with a “[Rest]”-group of 38% – all only a single entry per architectural-type).

The fifth class, ‘[E]’, has only one single “main”-type: the ‘Olive-press’ (“production”; 43%). This is quite string, as the building-type is generally interpreted as having primarily “luxury” indicators. The pie-chart is made up as followed (all “low” classes): ‘Decorative Architecture’ [6%], ‘Baths’ [6%], ‘Cistern’ [6%], ‘Olive-press’ [6%], ‘Pottery kiln’ [6%], ‘Settling Tank’ [6%], and ‘Roof tiles’ [6%]. The much larger “[Rest]”-class spans a total of 92% (all a mere 0.5x entry per architectural-class). Based on these results it must be concluded that the outcome of this type is probably biased by the low amount of cases included within the group (caused by the selection criteria of excavated cases to be included in this thesis). The results are simply too spread to be of any value.

The sixth and final class, ‘[O]’, will not be discussed in detail. It is however striking (and therefore important to mention) that a high “luxury” indicator like ‘Mosaic’ is included within 40% of the “un-definable”-cases. This could point to the fact that the cases included within this type consist primarily of heavily degraded and only partially excavated ‘high-status’ sites (e.g. possible villae).

The type-source division
This third sub-paragraph will address the architectural evidence within the site-classes provided by the original researchers (i.e. “Site-Source”). We will start with discussing the architectural features encountered in the ‘Farmstead’-group136. Here, it can be seen that the class is mainly consisting of examples including ‘Roof tiles’ (46%). These elements are however only indicative of a permanent structure, not of a specific functional interpretation. The additional object-classes included within the type, ‘Drain-channel’ (23%) and ‘Oven’ (15%), point towards a combined “agricultural” and “productional” use of the site-type. The

---

134 The evidence on the sub-types: ‘[C-I]’, made-up solely of the “low” ‘Millstone’-group [7%]. The “[Rest]” is a total of 63% - all one entry per object-class. ‘[C-II]’, made-up of the “high” groups ‘House Altar’ [50%] and ‘Millstone’ [50%]. ‘[C-II (or E)]’, made-up of the “low” groups ‘Drainage-channel’ [17%) and ‘Olive-press’ [17%]. The “[Rest]” is a total of 66% - all 17% per object-class.

135 Though added by a distinct “main” of ‘Roof tiles’.

136 The combination-classes ‘Farmstead / Villa’ and ‘Farmstead / Villa Rustica’ will not be discussed in this paragraph, as their evidence on the subject is simple insufficient enough to lead to further interpretations.
pie-chart connected to this site-type slightly reduces the importance of the above mentioned architectural-classes. Here, the “main” classes should be found within the “low”-group: ‘Drainage-channel’ (5%), ‘Imbrex’ (5%), and ‘Rooftiles’ (10%). The “[Rest]” of the entries, which include the “production”-related ‘Oven’-class is very divers. The total 55% is subdivided in individual architectural features that encompass less than 3% per type.

The second group, ‘Villa’, mainly consists of cases with evidence for a ‘Cistern’ (both a “luxury” indicator as a simple water-supply tool; 75%) and ‘Tablinium’ (specific room-indicator; 75%). In addition, lower amounts of evidence is presented for ‘Baths’ (“production” and “luxury”; 50%), ‘Millstones’ (“production”; 50%), ‘Olive-presses’ (“production”; 50%), ‘Settling Tank’ (“production”; 50%), and ‘Mosaics’ (“luxury”; 50%). Within the related pie-chart however, the above mentioned “luxury”-indicators fall silent, making the functional interpretative-classes more distinct. The percentual division (still however in the “low”-class) are as followed: ‘Baths’ (4%), ‘Cistern’ (7%), ‘Millstone’ (4%), ‘Mosaic’ (4%), ‘Olive-press’ (4%), and ‘Settling Tank’ (4%). The other 52% of the entries, included under the “[Rest]”-group, only encompass 2% per object-type.

The third and final class, ‘Villa Rustica’, mainly shows evidence for “production” practices (e.g. ‘Olive-presses’, 29%, and ‘Settling Tanks’, 14%, and ‘Millstones’ 14%). In addition, architectural-features related to “agriculture” (’Drainage-Channel; 14%), “luxury” (’Mosaic’, 21%, and ‘Decorated Plaster’, 14%), and “roofing” (’Rooftiles’; 21%). The accompanying pie-chart shows that the most definable object-classes are ‘Mosaic’ (4%), ‘Olive-presses’ (5%), and ‘Rooftiles’ (4%; all still within the “low”-group).

['Find Architecture - General']:

After having discussed the specific architectural-features and material related to the different interpretative classes in detail, the object-groups will now be discussed in relation to their general “functional” interpretation. The classes were grouped into the following generalised functional classes: (A) Architectural evidence, (B) Elaborate architecture, (C) Flooring, (D) Internal architecture, (E) Roofing, (F) Room-divisions, (G) Utilities and Manufacturing, (H) Walling and (I) “unknown” (“[XXX]”). In a way, this paragraph is included to sum-up the above mentioned results in more generalised categories.

General overview

Overall, we can see that the “main” interpretative group falls within the ‘moderate’-sub-category, and is comprised of ‘Walling’-evidence (37% of the cases). The additional groups ‘Utility / Manufacture’ (15%), ‘Elaborate Architecture’ (9%) and ‘Roofing’ (8%) all fall within the ‘low’-category. The “[Rest]” of the interpretative classes, with a total of 31%, all only include 2 – 7% of the cases, and will therefore not be mentioned here. From this, we can thus conclude that the gross of the architectural evidence is (unfortunately for the functional perspective of this analysis) included within the ‘Walling’-class.

The type-new division

After the general overview provided above, the evidence will now be presented in relation to the “Type-New”-division. This will include the description of the main type-groups, the sub-types will be included in the notes and tables (see attachments).

The first type, ‘[A]’, consists mainly of object-types falling under either the ‘Utility / Manufacture’ (10%) or ‘Roofing’-class (14%). Even though there relative amounts might seem low (still falling within the first percentual group: ‘[0-25%]’), the group are both at least twice as high as the other functional type-groups included here (these all
have < 7% per object-class).\textsuperscript{137}

The second type, '[B]', is quite similar to the first group. It also consists mainly of 'Utility / Manufacture' (10%) and 'Roofing'-material (8%), but is complemented by a third functional-class: 'Elaborate Architecture' (10%). The break between the main object-classes and the "Rest" is somewhat less defined, but the additional classes still make up less than 6% per object-type.

The third type, '[C]', seems to be completely focused on the 'Utility / Manufacture'-class (20%). The "rest" of the functional classes spans less than 6% of the total finds (per object-type).

The fourth type, '[D]', is in essence quite similar to the "[B]-type". It also consists mainly of 'Utility / Manufacture' (21%), 'Roofing' (10%) and 'Elaborate Architecture' (12%). The percentage of the 'Utility / Manufacture'-class is however twice as high, making this the "productional" site-type. The other functional classes included within this type add up to a mere 5% (or less) per object-class.

The sixth and final type to be discussed is '[E]'. It consists of a combination of functional classes: 'Elaborate Architecture' (6%), 'Roofing' (6%) and 'Utility / Manufacture' (19%). The included examples are therefore still primarily focused on "productional"-objects, but also include evidence of 'luxurious' architecture (as would be expected in the "Villa"-group). The percentages are however not definitive enough to differentiate them definitively from the "[B]" and "[D]-class". This makes true functional interpretation of these sites quite difficult.

**The type-source division**

When looking at the classes as defined by the original researchers in their source publications, we can see that the site-classes are all pretty similar in their general architectural evidence. In all three of the classes, 'Utility / Manufacture' is one of the main object-classes. In both the 'Villa Rustica' and 'Villa' examples, this architectural class is accompanied by a second, 'Elaborate Architecture'-class. Quite strikingly this seems to be the only definitive difference in functional architectural groups between the three site-classes.

The specific results were as followed: The 'Farmstead'-type consisted of a combination of 'Roofing' (14%) and 'Utility / Manufacture' (12%), which was accompanied by "rest"-classes consisting of 3% per functional-object-group. The 'Villa'-type consisted of a combination of 'Elaborate Architecture' (11%) and 'Utility / Manufacture' (17%), added by a "rest"-group of 2% per object-type. The final type, 'Villa Rustica', is similar to the above mentioned 'Villa'-type, also consisting of mainly 'Elaborate Architecture' (12%) and 'Utility / Manufacture' (15%). The rest of the functional-classes incorporated within this type span less than 5% per object-class.

\textsuperscript{137} The Sub-types: '[A-I]': low-group = 'Roofing [20%] and 'Utility / Manufacture [5%]; with a "[Rest]"-group of app. 30% - all 10 - 20% per class. '[A-II]': moderate-group = 'Utility / Manufacture' [25%]; with a "[Rest]"-group of app. 12.5% (solely made up of the 'Architectural Element'-class.
['Find Material']:
This aspect is related to the (individual) material objects collected from the excavated sites. These do not include artefact types of architectural or ceramic nature, but limits itself to functional objects (e.g. tools, luxurious items, jewellery and statues). In general terms it is the objects that give certain insight into the everyday life of the inhabitants (though in some cases also coins, which primarily have a dating purpose).

**General overview**
When looking at the overall division of general ‘Find-Material’ types (e.g. functional object groups), it is immediately apparent that the main consists of “[xxx]” (68%)\(^{138}\).

This is a huge problem for the analysis of this object type, as it means that almost three-thirds of the included excavated cases provide no evidence on this subject\(^{139}\).

In addition to the extremely high, main group, two additional clusters could be determined from the data. ‘Additional group #1’, which consists of ‘Loom-weights’ (12%), ‘Animal-bone’ (9%), ‘Coins’ (9%) and “luxurious” ‘Decorative Glass’ (9%). The ‘second additional group (#2)’, consists of even lower percentually present classes: ‘Bronze (fragm.)’ (6%), ‘Glass’ (6%), ‘Iron (fragm.)’ (6%), and ‘Terra Cotta (statue)’ (6%).

From this diverse combination of classes, as well as the general high amount of cases without information on the subject, it immediately becomes clear that this material class will be quite hard to interpret in a ‘site-classificatory’ manner.

**The type-new division**
As already mentioned in “Group-A” (above), the functional interpretation of site based on this material category is somewhat difficult, restricting itself to a minute number of excavated cases with the appropriate material classes. Only the striking classes will therefore be mentioned here.

Within type ‘[A]’, we can mainly see evidence for the ‘Mattock (iron)’ object class (12.5%), possibly related to agricultural activities. The “[C]-type” shows evidence for ‘Loom-weights’ (22x), especially high within the ‘[C-II]’ sub-class. Type ‘[D]’ provides evidence on ‘Decorated Glass’ (33%), as well as ‘loom-weights’ (25% in ‘[D-I]’), and other agricultural objects. The other “Type-New” classes provide no particularly important data on this class.

**The type-source division**
Within the description of the “Material-Finds” in relation to the original site-interpretation as provided in the excavated source-data, we can see that the ‘Farmstead’ class is relatively the only one with evidence to be mentioned. The ‘Farmsteads’ have a 23% presence of ‘loom-weights’. The ‘Villa Rustica’-type only shows low amounts of data on these material classes: ‘Decorated Glass’ (7%) and ‘Loom-weights’ (7%). The true ‘Villa’-class is void of this kind of data, and can provide no further functional insight.

---

\(^{138}\) At least within all “Type-New”-class, except for the ‘[C-II]’-type.

\(^{139}\) Meaning that either the cases did not include such material types, or that they were simply unimportant enough to be mentioned in the source publication.
For a more general look at the materials included within this set, the find classes were also sub-divided into functional object classes (see part 1.2 of this aspect): (A) Bones, (B) Coins, (C) Glass-objects, (D) Jewellery, (E) Lithics, (F) Metal-objects, (G) Statues, (H) Tools, (I) “unknown” (“[XXX]”).

**General overview**

When looking at the general (functionally inspired) “Find-Material” classes, we can see that the large “unknown”-group (‘[xxx]’; 42%) is added by three other (perceptually relevant) object-classes: ‘Tools’ (13%), ‘Metal’ (15%) and ‘Glass’ (9%). Unfortunately, only the first one is truly relevant when addressing site-classification.

**The type-new division**

As was the case in the earlier mentioned ‘Find Material’ (Pt. II – 1.1), the classification in “Type-New” site-classes did not provide a striking result when it comes to the material classes. When classified in general functional-categories, this is pretty much the same.

Type ‘[A]’ and ‘[C]’ mainly provide information on ‘Tool’-groups (11% and 18%). Type ‘[B]’ on ‘Jewelry’ (17%) and ‘Tools’ (11%). And type ‘[D]’ on ‘Glass’ (15%) and ‘Tools’ (15%).

**The type-source division**

When sub-dividing the excavated cases in the “Type-Source” typology, the results are equally difficult to interpret. ‘Farmsteads’ show a combination of ‘Tools’ (21%), ‘Glass’ (7%), and ‘Jewellery’ (11%) evidence, whilst the ‘Villa Rustica’ only includes objects belonging to either the ‘Glass’ (10%) or ‘Tools’ (5%) group. The ‘Villa’-class is even completely void of important data.

---

140 All other ‘[Rest-low]’-classes [12x total], consist of the following: ‘Bones’ = 3x/25%; ‘Coins’ = 3x/25%; ‘Jewelry’ = 3x/25%; ‘Lithics’ = 1x/8%; and ‘Statues’ = 2x/17%.

141 The Sub-types: ‘A-I’; high-group = ‘Tools’ [17%]. ‘A-II’: only includes data on non-functional classes, and will be dismissed.

142 The Sub-types: ‘C-II’: high-group = ‘Tools’ [50%]. ‘C-I’ and ‘C-II (or E)’: only include data on non-functional classes, and will be dismissed.

143 The Sub-types: ‘[B-I]’: low-group = ‘Glass’ [6%], ‘Jewelry’ [6%], and ‘Tools’ [12%]. ‘[B-II]’: only includes data on non-functional classes, and will be dismissed.

144 Main “[D]-type”: information on ‘Glass’ (15%) and ‘Tools’ (15%). The Sub-types: ‘[D-I]’: moderate-group = ‘Glass’ [25%]; low-group = ‘Tools’ [12.5%]. ‘[D-II]’: low-group = ‘Tool’ [20%].
['Ceramic Shape']:
This aspect is related to the ceramic material uncovered on the excavated site, more specifically their ceramic shapes. For most archaeological sites, both uncovered through survey and excavation archaeology, ceramic-finds are the main interpretative tool in defining site characteristics. Within this aspect their shapes are primarily used to reconstruct the functional use of the site (or building).

This is based on the fact that certain specific ceramic objects can be function-specific. One of these classes is filled by the ‘dolia’-type. These large (storage) containers are directly related to the production and fermentation of wine, or to the storage of oil and grain (Rossiter 1978, 21).

In addition to the presence of certain singular objects within a site, the relative amounts in which the functional classes related to these shape-groups are present, can also give insight into the functional use (and thus interpretation) of the site. A relatively high amount of storage-wares might for instance be indicative of a production site (i.e. farmstead or villa rustica), whilst a relatively higher amount of table- and fine-ware might swing more towards a site of luxurious habitation (i.e. a villa).

General overview
Does than the “Ceramic-class” bring hope in the site-classification analysis? As with allot of the here discussed elements, the “unknown”-group is here again formidable (‘[xxx]’; 62%). It is however, added by two additional distinguishable find-groups: ‘Additional class #1’, consisting of ‘Dolium’-fragments (29%); and ‘Additional class #2’, which is a combination of ‘Amphora’ (24%) and ‘Table-ware (fine)’ (18%). The other, “Rest”-classes, will not be discussed in detail145.

The type-new division
When looking at site-assemblages, one would like to compare percentage of object types, to see which differences become apparent. This will be undertaken in ‘Ceramic Shape’ (Pt. III – 1.2), in a paragraph sill to come. Here, however, we will focus on the fact if there are certain specific ‘ceramic object’ (not general functional classes) that immediately jump into focus. The main types within “Type-New” will therefore be addressed below.

The first type to be discussed, ‘[A]’, consists mainly of ‘Dolium’-fragments (25%). This is in close relation to the second type, ‘[B]’, which also mainly shows evidence of this type. Only from the third type on, things seem to change. Type ‘[C]’ shows a large variety of ceramic shapes that seem to be of importance: ‘Amphora’ (33%) and ‘Table-ware (fine)’ (33%). This is added by a slightly lower group of ‘Cooking-ware’ (11%), ‘Dolium’ (22%), ‘Dolium (dug-in)’ (22%) and ‘Kitchen-ware’ (11%). This higher variety might be indicative of the difference between the earlier mentioned (simple) ‘Farmstead’-class (”[A]”- and “[B]-type”) and the more divers and luxurious ‘Villa Rustica’ (”[C]-type”).

The fourth type, ‘[D]’, shows a combination of the overall “storage”-type objects: ‘Amphora’ (33%), ‘Dolium’ (50%) and (much lower) ‘Pithos’ (17%). This trend in large amount of “storage”-wares can also be recognized in the ‘[E]’ and “[0]-types”: ‘[E]’ consisting of ‘Amphora’ (43%) and ‘Dolium’ (29%); and ‘[0]’ of ‘Dolium’ (40%) and ‘Amphora’ (40%).

The type-source division
When grouping the excavated cases within the classes pre-defined by the original researchers, this distinction (as brought forth in “Group-B”) seem to disappear. All of the building-types now seem to show mainly “storage”-wares (probably due to the high percentage of these wares in the overall data-set).

The ‘Farmsteads’ are characterised by the combination of (mainly) ‘Dolium’ (38%), with additional ‘Amphora’ (23%), ‘Dolium (dug-in)’ (15%) and ‘Pithos’ (15%). In comparison, both the ‘Villa’ and ‘Villa Rustica’-class have

145 This includes 22x in total, consisting of: ‘Cooking-Ware’ = 4x / 18%; ‘Miscellaneous’ = 4x / 18%; ‘Storage’ = 1x / 5%; and ‘Table-Ware’ = 13x / 59%.
less of these material classes. ‘Villa’ only 25% of ‘Dolium’
(dug-in); and ‘Villa Rustica’ a combination of ‘Amphora’
(29%) and ‘Dolium’ (29%).

[Ceramic Shape - General]:
The objects were therefore also grouped in overarching functional assemblages (i.e. functional object groups), to provide better insight into the relative amounts between them. The functional shape-groups in which the objects were sub-divided are as follows: (A) Cooking-Ware, (B) Storage/Transport ware, (C) Table-Ware, (D) Miscellaneous and (E) “unknown” (“[XXX]”).

General overview
When grouping the evidence of “Ceramic Shape” within overarching functional groups, the “unknown”-group becomes less of a problem (“[XXX]”; 18%). In addition to that class, the other mains are now: ‘Cooking-ware’ (18%), ‘Table-ware’ (27%), ‘Storage’ (15%) and ‘Storage / Transport’ (11%). This makes the ‘Table-wares’ and combined ‘Storage-wares’ (i.e. ‘Storage’ in combination with ‘Storage / Transport’) the main interpretative classes.

The type-new division
The functional sub-division with the “Type-New” classes will now be discussed. This not always includes the mentioning of all functional classes, only the most important or striking results. For the full list of material classes per sub-type (see Attachments Pt. III – ‘Tables of analysed graphs’).

We will start off with type ‘[A]’, a group that is mainly associated with ‘Table-wares’ (40%). In addition, the class also shows a (lower) amount of ‘Storage-wares’ (15%).

Type ‘[B]’, follows the same line of ceramic shape classes: with a main of ‘Table-wares’ (38%) and an additional class of ‘Storage-wares’ (15%). This would mean that type-groups ‘[A]’ and ‘[B]’ are almost completely identical in their material representation.

From this point onwards, the types seem to mainly include only large ‘Storage-ware’-groups. Type ‘[C]’, for instance, is comprised of a different set of material categories, combining ‘Storage-ware’ (24%) with ‘Storage / Transport’-wares (10%). In addition, Type ‘[D]’ shows solely ‘Storage’ (18%) and Type ‘[E]’ a (quite low) combination of ‘Storage’ (10%) and ‘Storage / Transport’-wares (8%).

The type-source division
When looking at the site-definitions brought forth by the original researchers, we can again see that the ‘Storage’ and ‘Storage / Transport’ related ceramics that a prominent place. Cases labelled as ‘Farmsteads’ combine ‘Storage’ (16%) with ‘Storage / Transport’-wares (13%). ‘Villae’ solely includes a ‘Storage’-class as their main (25%). And finally, within the ‘Villa Rustica’, the class is represented mainly by two (seemingly low groups) of ‘Storage’ (9%) and ‘Storage / Transport’ (9%).

[Ceramic Ware - General]:
This aspect is related to the ceramic wares encountered on the excavated sites. This second ceramic-aspect is generally used for the dating of features and complexes, but can in some cases also give (partial) insight into the material assemblage. This is based on the fact that certain ceramic shapes and object classes are restricted to certain ceramic wares. Additionally, it can also give some insight into the wealth of the sites, being that some wares are considered to be more luxurious than others.

Regional difference and typological practices have led to a wealth of sub-categorization within the definition of ceramic ware. Because of this, most archaeological publications seem to have used quite varying ware-terminology. To counteract this, the individual ceramic classes were grouped into general ware-classes: (A) Acroma, (B) African Red Slip (ARS), (C) Bucchero, (D) Coarse-ware, (E) Daunia, (F) Depurated Ware, (G) Figulina, (H) Grigia, (I) Impasto, (J) Ingoebiata, (K) Pareti Sottili, (L) Pre-Terra Sigillata, (M) Terra Sigillata, (N) Vernice Nera, (O) Vernice Rossa and (P) “unknown” (“[XXX]”).
**General overview**

When looking at the general types of ceramic wares included within the case-studies, we can see that all of the individual types are present in quite low relative amounts. Within the table concerning these ware-classes (see Attachments Pt. III – ‘Tables of analysed graphs’), we can see that they all make up less than a quarter of the total types (and therefore all fall within the “low”-class). The largest group is (again) “unknown” (labelled as ‘XXX’), concerning cases which do not provide specific information on the ceramic wares uncovered on-site. In addition to this first class, some other (relatively high) types should also be mentioned: Terra Sigillata (15%), Vernice Nera (15%), Coarse-wares (12%) and Impasto (11%). Unfortunately, the overall division of these classes does not provide particular evidence to be used in the site-classification system as of yet: the types are simply spread too diversely. The ceramic ware classes will therefore be mentioned in relation to the “Type-New” and “Type-Source” typologies, to see if further analysis of the characteristic is possible.

To conclude this initial look at the material classes, it can also be mentioned that there is an additional “Rest”-group of extremely low ware-classes (besides the ware-types discussed above). This group, which consists of a total of 20 entries, makes up the final 24% of the included cases. The included types will not be discussed in detail here, but added as a footnote and in the tables / graphs within the attachments.

**The type-new division**

When sub-dividing the ceramic ware-classes based on the “Type-New”-classification, we can see that are (unfortunately for this analysis) no apparent relations to be found. It seems that all of the classes include relatively similar pottery types, in similar relative amounts. The “main” classes that are encountered within the sub-types, simply seem to mirror the ones that are also the highest in the “Group-A: The General Overview”-part of this paragraph. Based on this, we must conclude that the ware-types are presumably related only to the chronological period from which the case-studies stem, and not their functional interpretation. To provide a complete overview of the results, the sub-types will be addressed below.

The first class, ‘A’, is primarily made up of ‘Impasto’-wares (19%), in addition to the slightly lower ‘Terra Sigillata’ (14%), ‘Coarse-wares’ (10%) and ‘Vernice Nera’ (10%). This is closely related to the second building-type, [B], which also includes the main types ‘Vernice Nera’ (21%), ‘Terra Sigillata’ (12%) and ‘Impasto’ (9%). It however, seems to miss the ‘Coarse-wares’ as a main-type.

The third class, ‘C’, shows a clear division between the wares it includes. ‘Coarse-wares’ are of the highest order (26%). The secondary ware-classes are ‘Vernice Nera’ (16%) and ‘Terra Sigillata’ (11%). Within the “D”-class”, this is partially reversed. Here, the ‘Vernice Nera’ type is the highest (20%), added by a slight lower group of ‘Coarse-wares’ (10%).

The final class, ‘E’, mainly includes ‘Terra Sigillata’-type pottery (38%), in addition to the much lower ‘Coarse-ware’ (14%) and ‘Vernice Nera’ (24%) types. This last building-class might include the only site-specific ware-characteristic in the whole typology: the (possibly) luxuri-

146 Those cases probably limit themselves to a description of the “functional” ceramic classes uncovered during the excavation, or are totally void of material evidence in their publication.

147 “Rest”: ‘Acroma’ = 3x / 15%; ‘African Red Slip’ = 2x / 10%; ‘Bucchero’ = 1x / 5%; ‘Daunia’ = 2x / 10%; ‘Depurated Ware’ = 1x / 5%; ‘Figulina’ = 1x / 5%; ‘Grigia’ = 3x / 15%; ‘Ingobbiate’ = 1x / 5%; ‘Pareti Sottili’ = 2x / 10%; ‘Pre-Terra Sigillata’ = 2x / 10%; ‘Vernice Rossa’ = 2x / 10%.

148 I.e. Impasto, Vernice Nera, Terra Sigillata and Coarse-wares.


150 The Sub-types: [B-I]: low-group = ‘Vernice Nera’ [22%], ‘Impasto’ [9%], and ‘Terra Sigillata’ [12.5%]. [B-II]: only includes data on non-functional classes, and will be dismissed.

151 The Sub-types: [C-I]: moderate-group = ‘Coarse-ware’ [33%]. [C-II]: moderate-group = ‘Coarse-ware’ [25%] and ‘Vernice Nera’ [25%]. [C-II (or E)]: moderate-group = ‘Terra Sigillata’ [40%].

152 The Sub-types: [D-I]: moderate-group = ‘Vernice Nera’ [25%]. [D-II]: low-group = ‘Coarse-ware’ [17%] and ‘Vernice Nera’ [17%].
ous large group of ‘Terra Sigilata’ (at least in relatively indicative amounts).

**The type-source division**

When comparing the ware-classes to the “Type-Source” typology, we can again see that the division in types does not provide suitable evidence for site-characteristic variables. Both the ‘Farmstead’ and ‘Villa Rustica’-type include the same “high” ware-classes, in almost equal relative amounts: ‘Coarse-ware’ (11% vs. 15%), ‘Terra Sigilata’ (15% vs. 18%), ‘Vernice Nera’ (17% Vs. 15%). The only ware-type that does seem to break the rule is ‘Impasto’. Within the ‘Farmstead’ class, this ware-type is included within 15% of the cases, whilst the same ware within the ‘Villa Rustica’-class only counts up to a mere 6%. Although this fact might be indicative of a difference in luxury between the two building-types (more “cheap” impasto included within the “simpler” farmsteads), it is insufficient information on ware-type alone. Other characteristics and variables are needed to provide a definitive identification of the site-type.

As a further point of notice, the ‘Villa’-cases included within the data-set provided an insufficient amount of data for a ware-type analysis, and was therefore not discussed here.

[‘General Information per Group’]:

The final aspect to be addressed is not so much a variable in itself, but more of an overall analysis of the already covered find-classes: ‘Find Architecture’ (Pt. I – 1.1 / 1.2), ‘Find Material’ (Pt. II – 1.1 / 1.2), ‘Ceramic Shape’ (Pt. III – 1.1 / 1.2), and ‘Ceramic Ware’ (Pt. IV – 1.1 / 1.2). Per sub-group (i.e. “Group-A” to “B”) the presence or absence of each of these find-classes will be discussed, as well as their relative amounts within these classes. In general we can thus say that this part of the analysis provides an insight into the general (functional) make-up of the assemblage.

**General overview**

When listing the different material characteristics on which information could be provided per case-study, e.g. ‘Architecture’ / ‘Material objects’ / ‘Ceramic shapes’ / ‘Ceramic wares’, we can get an insight in the relative importance of each of these elements. In general we can see that: (A) ‘architectural information’ is provided in almost 100% of the cases, and can thus be seen as a primary characteristic of excavated examples. (B) ‘Material evidence on specific objects’ is a less mentioned characteristic, being mentioned only in one third of the cases. And (C) both ‘Ceramic Shape’ and ‘Ceramic Wares’ are represented in half of the cases.

Although the outcome of (A) is quite hopeful, especially in the comparison between different excavated examples, characteristic (B) and (C) are less positive. In the best case scenario, 50% of the included excavated cases are provided with any information on one of the three characteristics (without even going into the quality of the information). From this can be concluded that in the description of excavated examples, far out the most important source of information is the architectural information of the building (i.e. the layout of the building / ground plan) and the presence of certain architectural elements. Other material classes, like certain functional objects, ceramic shapes or certain pottery wares are deemed less important for the interpretation of the building (or at least, in not all cases seen as interesting to be mentioned in the published excavation / site report). This aspect is quite problematic for the comparison between excavated examples and survey results, as the architectural elements of the sites are not available for (or at least not reported / noted in the field) surveyed projects. Characteristics of surveyed sites are
restricted to the analysis of ceramic material, which are (as seen here) less prominent in excavation reports.

**The type-new division**

The listing of site-characteristics can also be analysed per ‘Type new’ (as devised especially for this thesis), to investigate if certain site-types are prone to provide more (or less) information on certain elements. The elements of the individual site-types will only be mentioned if they differ in a certain amount from the main divisions as described in the general analysis above (“Group-A”).

The first group, ‘[A]’, deviates from the norm on two accounts: (i) the cases almost completely lack information on “Material Classes” (100% ‘No’ instead of 66% as in the general class), and (ii) less numbers of the included cases provide information on “Ceramic Shape” (just one seventh of the cases are ‘Yes’, instead of a half-half division). Within the sub-classes, both ‘[A-I]’ and ‘[A-II]’ provide this lower amount of detailed information on certain characteristics.

Within the second group, ‘[B]’, both the classes providing information on ‘Ceramic Shape’ and ‘Ceramic ware’ include slightly lower percentages of ‘Yes’-types than in general division (approximately one third of the cases instead of the 50-50 division). This difference is mainly caused by the dispersed character of the sub-classes belonging to the “[B]-type”: ‘[B-I]’ resembles the general outline provided in “Group-A” (as mentioned above) quite well, but ‘[B-II]’ shows a different character. Although only one single example, the sub-group is different in the fact that half of the classes in mentioned as completely (100%) ‘Yes’, ‘Architecture’ and ‘Ceramic Shape’, whilst the other half of the classes is completely ‘No’, ‘Material information’ and ‘Ceramic Ware’.

The third group to be discussed, ‘[C]’, resembles the general outline quite well. The only apparent difference in character percentages can be found in the fact that the ‘Yes’ distribution in the ‘Material Information’-class is slightly lower than in the general distribution (only one-fifth of the cases, instead of one-third). These proposed similarities are quite surprising, as the underlying sub-groups of the site-type are totally different. No unity can be found in the results.

The fourth group, ‘[D]’, could probably be seen as the most different class. All of the proposed characteristics are (though sometimes only slightly) different: (i) information provided on ‘Architecture’ shows a slightly higher amount of ‘No’ cases; (ii) the amount of ‘Yes’ cases in both the ‘Material Information’ and ‘Ceramic Shape’-class are slightly higher (app. 66%); and (iii) the amount of ‘Yes’ classes within the ‘Ceramic Ware’-characteristic is slightly lower than the general distribution (20% instead of 50%). Overall, the “[D]-type” is a much dispersed group. Even though ‘[D-I]’ follows the line of the general dispersion quite closely, ‘[D-II]’ is completely different (it even shows the lowest ‘Architectural Information’ score present in the analysis, 50-50%).

The fifth group, ‘[E]’, shows a very positive image. In all of the characteristic-class, the percentage of ‘Yes’-cases is slightly higher than the norm: ‘Material Information’ is 50% ‘Yes’ (instead of 33%) and both ‘Ceramic Shape’ and ‘Ceramic Ware’ are also around 70% (instead of the regular 50%). Based on this, the information provided by the “[E]-group” should be quite reliable.

The last group to be discussed, ‘[O]’, was ‘a priori’ seen as the most unreliable group within the analysis (based on the fact that the cases are already missing a lot of information on the general layout of the excavated complex). Surprisingly however, within this ‘100% incomplete examples’-class, the incomplete examples all however include a 100% ‘Yes’ score within the ‘Architectural Information’-characteristic. On another note, both the ‘Ceramic Shape’ and ‘Ceramic Ware’ have a (slightly) lower relative amount of ‘Yes’-examples included within their cases (app. 40% instead of the usual 50%).

What than can we conclude from these outcomes? First of all, (A) the ‘Architectural Information’ is, just as was the case in the general dispersion, perfectly presented in all of the building types (almost always 100% ‘Yes’). Secondly, (B)
some aspects are better represented in certain building-types: ‘Material Information’ is best represented in the ‘[D]’ and ‘[E]’-types; ‘Ceramic Shape’ in types ‘[C]’, ‘[D]’ and ‘[E]’; and ‘Ceramic Ware’ in ‘[A]’, ‘[C]’ and ‘[E]’. Not all building types are thus published in similar detail, making intercomparision of certain classes somewhat difficult.

The type-source division

By listing the different classes of ‘information’ per building type (based on the site interpretation by the original archaeological investigator), information can be collected on the over- or underrepresentation of certain types of information within these classes. Such deviations in available informative classes could bias the overall interpretation of the excavated cases, and should thus be investigated before the evidence itself is interpreted.

The first class, ‘Farmstead’, has a high amount of ‘architectural information’ (within 100% of the cases). ‘Material evidence’ is spread equally, 50-50% of ‘Yes’ and ‘No’. Both ‘Ceramic Shape’ (60% ‘Yes’) and ‘Ceramic Ware’ (70% ‘Yes’) have a higher percentage of cases that do provide insight into the specific ‘Find characteristics’.153

The second class, ‘Villa’, again shows an extremely high amount of cases including ‘Architectural information’ (within 100% of the cases). The other informative class unfortunately however (‘Material information’, ‘Ceramic Shape’ and ‘Ceramic Ware’) all have very low amounts of data connected to the informative classes.154

The final class, ‘Villa Rustica’, also shows the perfectly presented ‘Architectural information’ class (100% of the included cases). ‘Material information’ (only 30% ‘Yes’) and ‘Ceramic Shape’ (40% ‘Yes’) are less highly represented (especially when compared to the general dispersion seen in “Group-A”). The ‘Ceramic Ware’ type of information is divided equally, 50-50% ‘Yes’ and ‘No’.155

By comparing these three classes, we can conclude that different building types provide a different amount of reliable informative classes. For instance, the information in the ‘Farmstead’-class was represented quite positively. Architectural information is provided within all of the cases. Additionally, both the ceramic classes (‘Ware’ and ‘Shape’) are also present in high enough amount to lead to reliable conclusions. On the low end however, ‘Material information’ is only provided in half of the cases, making this type of information less reliable.

In contrast to the ‘Farmstead’-class, the ‘Villa’-examples are supposedly interpreted primarily based on the architectural information of the sites (e.g. the layout of the ground plan, the presence of certain architectural materials (possibly luxurious in nature), and specific architectural elements related to certain functional categories (e.g. large storage areas, pressing rooms or bath-complexes). Other elements, like specific functional material objects and ceramic shapes (not even luxurious pottery shapes and wares), are mentioned only rarely, making the interpretational aspect of this site class quite a struggle.

Like the above mentioned class, the ‘Villa Rustica’-examples are also primarily interpreted based on architectural information, in combination with a lower amount of information provided on the excavated ‘ceramic wares’. Both the information on ‘Material classes’ and ‘Ceramic shapes’ is provided only in a low amount of the cases. This together makes the interpretive characteristics of this last group quite difficult.156

153 On a ‘completeness’-level (i.e. the amount of excavated cases labelled as being ‘complete’) the cases included within this building-class are (slightly) more ‘complete’ than ‘incomplete’ (both the cases labelled as ‘Yes’ and ‘No’ within the ‘information classes’).

154 All of the cases included within the building type are labelled as ‘Complete’ or ‘Almost complete’, making the scarce amount of information within certain ‘informative types’ even more pressing.

155 Overall, the cases included within this class are mainly labelled as ‘incomplete’ (66% of the cases), which is slightly more represented in the ‘informative classes’ provided with (‘Yes’) information.

156 The combination-groups within this part of the analysis were not of specific interest here, as a re-evaluation of the cases could not provide any further information of the reliability of the typology. These groups will thus be left out here (further results are however included within the tables within the attachments for further reference).
Part D-I:
-Overview of Human Activity-
Introduction

This part of the attachments give a detailed overview of the main habitation-phases (i.e. human activity) presented in the material from the Centocelle-plateau. The evidence is discussed in relation to the three main areas of investigation (i.e. sites): ‘S.5’, ‘Villa ad duas lauros’, and ‘Villa della Piscina’. In essence, the below placed descriptions sum-up the main results of the on-site excavations (used throughout the main text of this chapter).

Per site, this description can contain one (or more) of the following subjects: (i) the overall human activity in the area, which give a detailed description of the period specific materials uncovered on-site (Site #1 - 3); (ii) the material finds per building phase, which gives a detailed description of the buildings internal and external developments (Site #2 - 3); and (iii) an overview of the research undertaken on-site, which is very important as earlier investigations influenced later research strategies (Site #3).

Site #1: ‘S.5’

Overall human activity in the area

[Period IA]
The material from this earliest period (e.g bronze suspension ring and impasto rosso sherds; Gioia & Volpe 2004, 346) seems to indicate a use of the area from the eighth century B.C. onwards. Evidence for the first habitation of the area however stems from the sixth century B.C., as indicated by the traces of an Archaic house (Sector 14) and drainage channel. Additional indications of land-use (e.g. the water provision for crops) are the ‘pozzo’ (well; 0.86 m in diameter and 1.05 m deep) and cultivation trenches in Sector 19. The latter is visible through a dispersion of small pottery sherds, rectangular holes and an ‘olla’ (jar) dug into the bedrock (possibly for the placement of plants).

[Period IB]
From the Republican period further traces of cultivation trenches and other agricultural features were uncovered, indicating a vineyard. Two trenches (one 15 m long, the other rectangular and 90 cm long and 30 cm deep; dating to the fifth-fourth century), indicate planting or irrigation works. The fragmented pottery collected from the features, mainly impasto, could unfortunately not provide a precise chronology.

[Period II]
During this period a new system of cultivation trenches was implemented. Orientated North-South the ‘ex novo’ vineyard rows were placed in a parallel pattern (10 m intervals, 80 - 90 cm deep). This intensification of agricultural use amounted to a total area of 1,400 m² (a 70 x 20 m field). The archaeo-botanical investigation by Francesco Larocca and Alessandra Celant (Gioia & Volpe 2004, 355) marks the area as a vineyard (especially Sector 4 and 5).

[Period III]
Again a new system of cultivation trenches, now East-West orientated (perpendicular to the previous one). Trenches placed in 10 m intervals, over a complete area of 5,000 m² (140 x 35 m). As the system continues beyond the limits of the excavation pit, the actual limit of the cultivation area could not be determined, which means the size of the cultivation area is unknown.
Site #2: ‘Villa ad duas lauros’

Overall human activity in the area

[Period I]
In the habitation area no traces of human activity prior to the 4th century B.C. were uncovered. This is possibly due to a complete disturbance of the earlier archaeological layers by the construction of the two subsequent villae-complexes. This earliest (hypothesized) period could however be confirmed by residual material (dating to the 3rd century B.C.) uncovered in more recent stratigraphic layers.

[Period II]
The features uncovered belonging to a mid-republican building (interpreted as an early farm) were found in excavation trench ADL 1000, orientated towards the NNE-SSW. This building-period was characterized by walls of ‘tufa’, ‘peperino’ and ‘nemfro’; and floors of ‘tufo battute’ (i.e. a pavement of crushed tufa-chunks).

[Period III]
During the 1st century B.C., while the first phase of the villa-complex was constructed (orientated East-West), all foundations of earlier phases were completely disturbed (including the farm). The villa follows the traditional scheme, with atrium and peristyle. Foundation walls belonging to this period were made of opus incertum. The complete complex stretched over an approximate 1,000 m².

[Period IV]
This phase, interpreted as the second phase of the republican villa, is characterized by restoration and additional building phases. Adaptations of the initial floor-plan are visible on account of the reduction in size of the central courtyard (which was embellished by a new mosaic flooring), the addition of two new rooms at the North-Western side of the villa (production centres) and construction of a colonnaded portico in the garden. All of the new walls are constructed of opus reticulatum, distinguishing them from the earlier phases.

[Period V]
The third phase of the villa is characterized by the addition of large rooms on the Eastern (ADL 1000) and Northern side (ADL 2500) of the complex. During this phase the corridor at the eastern side of the (central) atrium were transformed in small square rooms, whilst the ones at the western side in are turned into bathhouses. Eventually the colonnade at the Northern garden was closed off, changing the internal pathways within the complex.

The period can be subdivided in two phases: (A) the 1st - 2nd century A.D., characterized by walls of ‘opera incerta grossolana’ and floorings of ‘vespae pavimentali’, and (B) the 3rd century A.D., characterized by the construction of a sepulchral ‘a tiempietto’ to the north of the villa (within ADL 2000).

[Period VI]
The fourth building phase of the villa showed another set of layout changes of the complex: the construction of a wall encompassing the ‘tiempietto’ (to the north, ADL 2000), the restoration of the ‘polychrome mosaic’ (to the south, ADL 2500), the construction of a circular tomb (to the east, ADL 100), and the replacement of the original flooring by a new ‘opus sectile’ one (central area, ADL 1000).

[Period VII]
The final building phase of the villa-complex can be identified within the material belonging to the 5th century A.D. During this period a few last additions were made to the floor-plan: a square room with three semi-circular niches is added (ADL 2500), a portico used as a burial-place (ADL 2000), a circular sepulchral building (ADL 100), and two tombs to the western side of the complex (ADL 1000).

[Period VIII]
After investigating the archaeological material it is presumed that the ‘villa ad duas lauros’ was abandoned during this period (6th century A.D.).
Material per building-phase

This additional section of the sub-chapter will provide a detailed description of the earlier phases of the 'Villa ad duas lauros' (Republican period). Its development is of special interest to the research questions of this thesis. A connection will be made between the archaeological material uncovered during the excavations and the subsequent interpretation of the building.  

[Period II]: The Mid-Republican building (farmstead / l’edificio)

The building is hypothesized to have had an agricultural vocation, probably a medium sized farm, functioning as a central place within a larger rural community (although no other traces of additional buildings were uncovered in the immediate vicinity). Archaeological evidence for this interpretation can be found in the form of ceramic debris, foundation walls and flooring158, together with traces of an agricultural trench system situated to the northern end of the building (partially walled and with same orientation of the building, ADL 2000). The chronology of the complex was based on the ceramic material, placing it in the 3rd-2nd century B.C. These sherds however were primarily found out of their original context, placed in the residue layers of later (mainly imperial) periods. During the excavation three distinct building phases were distinguished for this period: two main building phases (A / B) and a restoration phase (C, which includes changes to parts of the building):

  The first phase (A) of the building had an extent of approximately 400 m², during which it does not yet show any traces of a rustic / rural-function. In the overall stratigraphy of the site the floor-level of this period is about a meter lower than the late-Republican villa (discussed below), and consists of a series of tufa-slabs. The initial walls of the complex, both outer and internal walls are constructed of tufa-blocks ‘peperino’ and ‘nenvro’, approximately 0.5 x 0.2 m in size. On the North-Eastern side of the building the outer (limit) wall was identified, thus providing the above mentioned dimensions of the complete ground plan. A series of internal rooms seems to continue towards the south (an area which unfortunately, due to the placement of the modern military base, could not be excavated). A lack of datable material in the lower stratum of the archaeological trenches makes it impossible to date the traces any sharper than the 3rd century B.C., a period hypothesized on the basis of the type of wailing and stratigraphic succession.

  During the second phase some small changes and additions to the initial plan of the building were made, including the restoration / restructuration of the earlier constructed walls and an addition of new porticoes. The eventual large scale restructuring of the building (e.g. third phase) had taken place within the course of the 2nd century B.C.159. During this period the southern floors were raised by approximately 80 cm (a new flooring of beaten earth), which caused a difference in floor-level between the northern and southern part of the building (possibly indicating a difference in function). In addition the delimitating wall (eastern side) is rearranged. All these changes and additions might indicate a change of the function of the building to a more agricultural nature. The eventual destruction of this earlier phase of the building is indicated by the layers of abandonment and construction of the 'Villa ad duas lauros' (2nd century B.C.).

[Period III]: Construction of the Villa ad duas lauros

This building is in both style and organisation completely different from the above mentioned farmstead.160 It followed a block-shape (app. 1,000 m²) with the traditional scheme of a Roman villa, complete with atrium and peristyle. Even the orientation

---

157 The additional periods (beyond the Republican and Early Imperial period) will not be described here, but can be found in Centocelle Book - Part II (Gioia & Volpe 2004).

158 See Gioia & Volpe 2004; Fig.4 p.363 / Fig.5 p.364.

159 Chronology based upon a selection of sherds uncovered within the layer between the two floor-levels (‘impasto’, ‘vernice nera’, ‘common-ware’ and ‘anfore’).

160 See Gioia & Volpe 2004; Fig.10 p.368 / Fig.11 p.369.
(now East-West) was different than the earlier building from period II. Further difference can be found in architectural features like walling (‘opera incerta’), flooring (‘lithostroton’) and ‘mosaic’ (ADL 1000, rooms VIII, XVIII, XIX).

The central court, atrium, was 11 x 13 m (almost square) and flanked on either side by (also square) rooms. Included within this part of the villa are a compluvium/impluvium, mosaic floors and a square pit (2.30 x 2.30 m) to the North-Eastern side (interpreted as a cistern for the collection of rainwater). To the eastern side of the villa-complex a garden was uncovered (ADL 2500), visible by the corridor walls of ‘opera incerta’ (app. 40 m long). Below the villa a cunicoli, system of tunnels cut into the tufa was also uncovered (app. 3.70 m deep, branching out in both East / West direction). The complex could be entered on the northern side, where it is connected to the road-system (identified during the earlier archaeological research). A possible secondary entrance to the villa was possible on the eastern side of the garden.

The construction of the villa, dated to the 1st century BC, was based on the building technique and materials found within the foundation layer (‘ceramic d’impasto’, ‘vernice nera’, ‘ceramic dipinto’, ‘ceramic commune’, ‘ceramic da fuoco’ and ‘anforae’).

**Site #3: The Villa della Piscina**

### Research on-site 3

This Republican / Imperial villa, located on the North-Western margin of the plateau (app. 50 m above sea level), derives its name from the distinctive large pond that was part of a later phase of the complex. During the 1930’s the S.A.R. investigated the area before redistribution of soil and levelling procedures would take place as part of the construction of the military airbase. The archaeologists uncovered a series of walls and foundations from which the complete ground plan of the villa-complex could be reconstructed. After discovery of the archaeological features, the campaign continued as a preliminary archaeological investigation, aimed at determining the overall dimensions of the complex and at recording the archaeological stratigraphy. The decision to change the archaeological campaign into a preliminary investigation limited the extent and depth of the test-trenches severely. Only the foundation walls were excavated in detail, leaving all other features / contexts intact for further detailed investigation in the future.

Since the first project of the S.A.R. in the 1930’s, modern deep ploughing activities have affected the archaeological material severely. In the 1996 - 1998 campaign only small stretches of the earlier uncovered foundations could be recovered. Further difficulties were due to the state of the archaeological archive from the 1930’s, especially the geographical / spatial system used to record the placement of the foundation walls. Modern changes to the landscape and soil (e.g. the placing of modern pipelines) made it almost impossible to project the earlier drawings on the right places, as the recording method used back then was simply not precise enough to pin-point the location of the building. A field survey was therefore conducted to approximately locate the villa. Places with high concentrations were seen as “hotspots” and used as high ranking places for archaeological remains of the villa. The excavation trenches were therefore placed according to the results of the field-survey.

During the survey project 17,700 m² was explored (located within the 25,000 m² area explored during the 1930’s campaign). Based on the results of this first exploration, six trenches of different dimensions were placed within the confines of the site: [Area 1], [Area 1000], [Area 2000], [Area 3000], [Area 4000] and [Area 5000]. In total they encompassed an area of

---

161 From the 1st century A.D. in use as a rubble-dump instead of a water reservoir (Gioia & Volpe 2004 p.373).
162 The 1930’s S.A.R. campaign provided: a general building plan (1 : 100), drawings of architectural features (plans, sections, projections), an axonometric view of the southern sector, a detailed field booklet (by P.Mottini; complete with detailed sketches and measurements) and a lists of excavated objects.
163 This area of investigation is limited by the location of the military base (to the south) and the ‘Campo Casilino 700’ (a Roma gypsy-camp to the north, partially covering the site; Gioia & Volpe 2004, 380).
7,000 m², 40% of the area explored by survey. In these trenches all the architectural elements (foundations) were investigated in detail. The researchers however decided to excavate only certain layered deposits within the features described above. Only in cases where the layers are of particular importance for the research questions (centred on the relocation and functional interpretation of the individual rooms) were layers fully investigated.

Despite the fact that certain archaeological traces have been lost (or brought back to the mere height of a few centimetres) by modern day agricultural activity, the remaining evidence still adds up to a site of considerable size. The entire villa (by which I mean the villa in its largest extent) had a total surface area of 25,000 m² (including the delimiting fencing walls), and the adjacent garden an additional 12,000 m². Individual rooms were given letters to identify them: atrium (L), large paved courtyard (M), baths (D, E, G, H) and the large corridor (S). The individual materials found in the stratigraphic contexts of these features add a chronological framework and building sequence to the structure, stretching from the VI century B.C. till III century A.D.

**Overall human activity in the area**

_Evidence from period I - III (VI - I century B.C.)_: The material evidence for the complex seems to concentrate in [Area 1000], and will be generally discussed below (including the later periods, not directly of interest for my thesis):

_Period I (VI - IV century B.C.):_ Evidence for a small building, limited extent, possibly of an agricultural nature.

_Periods II (III century B.C.) & III (II - I century B.C.):_ Oldest habitation of the (initial) villa-complex, together with some cultivation trenches (partially situated in [Test-Trench Group 2]). The agricultural traces might indicate an intensification of vine-cultivation.

**Period IV - V (I century B.C. - III century A.D.):** The uncovered building foundations correspond to the plan uncovered in the 1930’s, characteristic of a large suburban residence. During this period the building incorporates the earlier Republican building (same orientation and internal room division), but the complex is extended to the east, an area earlier used for agricultural purposes. Additionally, a pool was added to the south.

_Period VI (IV century A.D.):_ Episodic abandonment of the complex, with new fill-layers closing up the older architectural features (pool, sewer, etc.).

_Period “X“:_ Recent and sub-recent phases, with disturbances belonging to the building of the military complex.
Material per building-phase

[Period I (end VI-IV century B.C.):]

The archaeological evidence for this period can be found within [Area 1000], buried by the destruction layers of a later period. Main feature of this period is a structure with a rectangular floor plan (11 x 5.30 m), orientated towards the NW-SE. Although the building itself was not completely excavated, the foundation trenches could be identified. Cut into the tufa bank were the foundation trenches of two straight walls (North-west and South-east orientated) and a rough side-wall (NE orientated). The structure itself seems to have been subdivided into two parts / rooms. In one a substantial fill-layer was uncovered, the ‘Pozzolana grigria’-fill, which eventually (after detailed excavation) turned out to be void of any finds.

Further archaeological features from this period consist of a series of pits: (1) an orthogonal row of six rectangular pits cut into the tufa bank, probably foundation holes for structural blocks or other architectural elements. (2) A large quadrangular pit, partially covered by a wall of period III (and partially excavated), of possible similar function as the above mentioned. (3) A round pit (or silo) used for the storage of water or agricultural produce. The connecting channel and deposit of silty-clay on the bottom/walls of the pit (a fill which was completely removed during excavation) underline the hydrological function of the feature. (4) Numerous rounded and quadrangular pits with an unclear function, lacking any spatial consistency. They are possibly connected to the cultivation of vines (during the 2nd and 3rd period) based on their location near the edge of the courtyard, though this is not completely certain.

Despite the fragmented nature of the archaeological evidence from this period, the importance of this early evidence should not be underestimated. The area seems to be designated for the processing and storage of agricultural products / produce. This activity concentrates around the later centre of villa, underlining the continuity of the production activity of the complex. Although no period specific material evidence was uncovered during the excavation, this first phase of the building was dated to the IV - III century B.C. (based on surface collection and stratigraphy). The abandonment / re-arranging of the building seemed to coincide with the construction of the villa belonging to period II, further underlining the continuity of the complex.

[Period II (III-II century B.C.):]

Archaeological material of this period is again concentrated in [Area 1000], now testifying to the construction of the oldest part of the villa, linked to an area used in the cultivation of agricultural products (visible on account of a system of agricultural trenches). The stratigraphic data of the area allows the distinction of two phases:

Period II, phase 1 (constructing the Villa):

This phase is marked by the destruction of the structure from the previous period, although the date of the destruction is purely hypothetical (based on the finds uncovered in the presumed layers of abandonment; for further information see Gioia & Volpe 2004, pp.394-395).

The uncovered tufa stone walls make up an elongated rectangular ground plan, internally divided into an octagonal system of rooms centred on a large square courtyard. This original ground plan (together with the NW-SE orientation of the complex) is in continuous use up till the 1st century B.C. The foundation walls on which this reconstruction is made had been preserved to a maximum height of 0.10 – 0.15 m. The upper build-up of the walls had unfortunately been cut-off by later building phases and sub-recent ploughing activities. The lower parts of the foundation walls had been placed in foundation trenches cut within the bedrock. The outer walls were made up of tufa-blocks of app. 1.50 – 0.90 x 0.58 – 0.60 m; the internal ones of app. 1.50 – 0.90 x 0.45 – 0.55 m. The materials found within the complex layers dated the complex to the period of IV-II century B.C. The total area of the complex could however be estimated to app. 900 m².
The above mentioned farm complex seems to follow the general rules of the farm typology of this period: “A series of rooms arranged in at least two, perhaps three sides of the core (a central court with connecting function).” (Volpe 2000, p.191; Musco, Zaccagni 1985, pp.90-106).

Outside the initial confines of the complex an area for the cultivation of agricultural products was uncovered, possibly a vineyard. It was located in [Area 1000], and orientated NW-SE covering an area of 3,900 m² (65 m to the North-South; 60 m to the West), and [Area 1] + [Area 4000] (marked by the ruins of an Imperial villa; Period IV). The system of trenches is associated with the villa of Period II-Phase I through a system of pipes, which are obliterated in Period II-Phase II by the construction of a new series of walls and new pipes.

Period II: Phase 2 (Additions to the villa):
During this phase the villa complex is expanded toward the South-East, maximizing the size to 1,400 m². The new building is characterized by a larger central space, together with some additional large scale rooms. The tufa blocks, which make up the walls, are of a different proportion than the earlier phase (0.90 – 1.20 x 0.56 – 0.60 m). As mentioned above the initial drainage channels within the cultivation area were abolished and replaced by a new system of trenches and drainage channels (made up of tufa blocks or cut into the bedrock).

[Period III (end II-I century B.C.)]:
During this phase the complex undergoes certain restructuring measures, which is mainly centred on the outside area of the villa: the construction of a large pond and a new arrangement of the vineyard (with associated system of pipes). Two related tufa quarries were also identified in the immediate vicinity, possibly the point of origin for multiple tufa blocks used during this construction phase (Gioia & Volpe 2004, p.420).

Even though this phase is mainly about the changes on the outside of the villa complex, some internal features are also modified. One of these is the insertion of new structural elements and reorganization of older ones: particularly the central room (16.40 x 9.40 m). The excavation uncovered features related to the processing of agricultural products (e.g. the drainage channel and raised floor level), which shows the rustic character of the building. The intertwining of archaeological layers makes it impossible to reconstruct if the production activity was also located within these rooms. Additionally, a series of postholes in the central area might indicate a second floor.

The external area of the villa underwent similar changes. The (drainage) channels of the earlier phase were again abandoned, filled and replaced by a new system. This process could be dated to the second century B.C. by the Vernice nera sherds uncovered in layer US1063. Additionally the cultivation area was again extended, now to an area of app. 22,100 m² [stretching over [Area 1000] and [Test-Trench Group 2 or 3]]. A delimiting wall was constructed to enclose the vineyard (130 m E-W; 170 m N-S). A final feature that was added to the complex was the rectangular shaped pond (28.50 x 9.70 – 9.80 x 2.10 m) located in [Area 4000], cut out in the tufa bank and lined with ‘opus incertum’-walls.
[Attachments]:

“Chapter 4: Centocelle”

Part D-II:

-GIS: Spatial Analysis Maps-
Figure 36: An overview of the implemented survey-grid during the Centocelle-project, complete with unit-numbers. The three primary sites are marked by the Roman-numerals. The map is an adaption of the one published in Gioia & Volpe 2004, 195; Figure 2).
Figure 37: A find-density map of the amphorae ('Anfore') ceramic-class. The excavated sites are marked by the red lines.

Figure 38: A find-density map of the amphorae ('Anfore') ceramic-class, recalculated per hectare. The excavated sites are marked by the red lines.
**[Chi²-Test: Average (‘Per hectare’) – ‘High’ and ‘Low’]:**

Figure 39: A find-density map of the amphorae (‘anfore’) ceramic-class, showing the outcomes of the Chi-square test for the mean-value (re-calculated per hectare). The positive residuals are placed **above**, the negative residuals **below**.

---

**[Chi²-Test: Median (‘Per hectare’) – ‘High’ and ‘Low’]:**

Figure 40: A find-density map of the amphorae (‘anfore’) ceramic-class, showing the outcomes of the Chi-square test for the median-value (re-calculated per hectare). The positive residuals are placed **above**, the negative residuals **below**.
Figure 41: A find-density map of the coarse-ware ceramic-class. The excavated sites are marked by the red lines.

Figure 42: A find-density map of the coarse-ware ceramic-class, re-calculated per hectare. The excavated sites are marked by the red lines.
[Chi^2-Test: Average (‘Per hectare’) – ‘High’ and ‘Low’]:

Figure 43: A find-density map of the coarse-ware ceramic-class, showing the outcomes of the Chi-square test for the mean-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.

[Chi^2-Test: Median (‘Per hectare’) – ‘High’ and ‘Low’]:

Figure 44: A find-density map of the coarse-ware ceramic-class, showing the outcomes of the Chi-square test for the median-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.
Figure 45: A find-density map of the cooking-ware ('Ceramiche d’uso comune') ceramic-class. The excavated sites are marked by the red lines.

Figure 46: A find-density map of the cooking-ware ('Ceramiche d’uso comune') ceramic-class, re-calculated per hectare. The excavated sites are marked by the red lines.
[Chi$^2$-Test: Average ('Per hectare') – ‘High’ and ‘Low’]:

![Chi-square test for average per hectare](image)

**Figure 47:** A find-density map of the cooking-ware ('Ceramiche d’uso comune') ceramic-class, showing the outcomes of the Chi-square test for the mean-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.

[Chi$^2$-Test: Median ('Per hectare') – ‘High’ and ‘Low’]:

![Chi-square test for median per hectare](image)

**Figure 48:** A find-density map of the cooking-ware ('Ceramiche d’uso comune') ceramic-class, showing the outcomes of the Chi-square test for the median-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.
Figure 49: A find-density map of the vernice nera ceramic-class. The excavated sites are marked by the red lines.

Figure 50: A find-density map of the vernice nera ceramic-class, re-calculated per hectare. The excavated sites are marked by the red lines.
[Chi²-Test: Average (‘Per hectare’) – ‘High’ and ‘Low’]:

Figure 51: A find-density map of the vernice nera ceramic-class, showing the outcomes of the Chi-square test for the mean-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.

[Chi²-Test: Median (‘Per hectare’) – ‘High’ and ‘Low’]:

Figure 52: A find-density map of the vernice nera ceramic-class, showing the outcomes of the Chi-square test for the median-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.
Figure 53: A find-density map of the sigillata Italica ceramic-class. The excavated sites are marked by the red lines.

Figure 54: A find-density map of the sigillata Italica ceramic-class, re-calculated per hectare. The excavated sites are marked by the red lines.
Chi²-Test: Average (‘Per hectare’) – ‘High’ and ‘Low’:

Figure 55: A find-density map of the sigillata Italica ceramic-class, showing the outcomes of the Chi-square test for the mean-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.

Chi²-Test: Median (‘Per hectare’) – ‘High’ and ‘Low’:

Figure 56: A find-density map of the sigillata Italica ceramic-class, showing the outcomes of the Chi-square test for the median-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.
172


Figure 57: A find-density map of the add. fine-wares ('Altre Ceramiche fini') ceramic-class. The excavated sites are marked by the red lines.

Figure 58: A find-density map of the add. fine-wares ('Altre Ceramiche fini') ceramic-class, re-calculated per hectare. The excavated sites are marked by the red lines.
Figure 59: A find-density map of the add. fine-wares ('Altre Ceramiche fini') ceramic-class, showing the outcomes of the Chi-square test for the mean-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.

Figure 60: A find-density map of the add. fine-wares ('Altre Ceramiche fini') ceramic-class, showing the outcomes of the Chi-square test for the median-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.
Figure 61: A find-density map of the dolia ceramic-class. The excavated sites are marked by the red lines.

Figure 62: A find-density map of the dolia ceramic-class, re-calculated per hectare. The excavated sites are marked by the red lines.
[Chi\(^2\)-Test: Average (‘Per hectare’) – ‘High’ and ‘Low’]:

Figure 63: A find-density map of the dolia ceramic-class, showing the outcomes of the Chi-square test for the mean-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.

[Chi\(^2\)-Test: Median (‘Per hectare’) – ‘High’ and ‘Low’]:

Figure 64: A find-density map of the dolia ceramic-class, showing the outcomes of the Chi-square test for the median-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.
[8] Bricks / (Roof)Tiles (‘Laterizi’):

Figure 65: A find-density map of the bricks / (roof)tiles (‘Laterizi’) material-class. The excavated sites are marked by the red lines.

Figure 66: A find-density map of the bricks / (roof)tiles (‘Laterizi’) material-class, recalculated per hectare. The excavated sites are marked by the red lines.
[Chi²-Test: Average ('Per hectare') – ‘High’ and ‘Low’]:

Figure 67: A find-density map of the bricks / (roof)tiles ('Laterizi') material-class, showing the outcomes of the Chi-square test for the mean-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.

[Chi²-Test: Median ('Per hectare') – ‘High’ and ‘Low’]:

Figure 68: A find-density map of the bricks / (roof)tiles ('Laterizi') material-class, showing the outcomes of the Chi-square test for the median-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.
Figure 69: A find-density map of the flooring / pavement (‘Pavimenti e Rivestimenti’) material-class. The excavated sites are marked by the red lines.

Figure 70: A find-density map of the flooring / pavement (‘Pavimenti e Rivestimenti’) material-class, re-calculated per hectare. The excavated sites are marked by the red lines.
[Average (‘Per hectare’) – ‘High’ and ‘Low’]:

![Chi-square P value (Probability)]

Figure 71: A find-density map of the flooring / pavement (‘Pavimenti e Rivestimenti’) material-class, showing the outcomes of the Chi-square test for the mean-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.

[Median (‘Per hectare’) – ‘High’ and ‘Low’]:

![Chi-square P value (Probability)]

Figure 72: A find-density map of the flooring / pavement (‘Pavimenti e Rivestimenti’) material-class, showing the outcomes of the Chi-square test for the median-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.
All ceramic finds put together (Archaic & Republican):

**Figure 73:** A find-density map of all ceramic finds put together (Archaic & Republican). The excavated sites are marked by the red lines.

**Figure 74:** A find-density map of all ceramic finds put together (Archaic & Republican), re-calculated per hectare. The excavated sites are marked by the red lines.
Figure 75: A find-density map of all ceramic finds put together (Archaic & Republican), showing the outcomes of the Chi-square test for the mean-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.

Figure 76: A find-density map of all ceramic finds put together (Archaic & Republican), showing the outcomes of the Chi-square test for the median-value (re-calculated per hectare). The positive residuals are placed above, the negative residuals below.
“Chapter 3: Excavation”

Part D-III:

-Spatial Analysis Maps: Text version-
The analysis of the spatial maps (Arc-Map)

This final part of the attachments will discuss the analytical outcomes of the (GIS) spatial maps included in the attachments Pt. II - ‘GIS: Spatial Analysis Maps’ (pp.160-181; a textual description of what is seen on the spatial dispersion maps). This analysis combines ArcGIS and chi-square test (including both the ‘main’ and ‘median’). The outcomes are presented per material-class (i.e. ceramic type).

[1] Amphorae

When looking at the spatial dispersion of this first material class, we can see that (compared to the general average) its presence in the sites (Site II / Site III) is particularly high. Especially when compared to the rest of the plateau, which seems void of the class (not even any off-site material of significance).

For site III the material dispersion seems to coincide with the central part of the building (as located through an on-site excavation), making it a good interpretation tool. Unfortunately, this cannot be said for site II, where the material is spread over a much larger area. This dispersion might be to blame on the later expansion of the complex (and development into an Imperial villa). This hypothesis is supported by the fact that the material class was encountered in both of the excavated building phases.

This dispersion is in accordance with what is visualized in the median-maps, although the dispersion of both sites seems even higher in these maps. Two additional (possible) sites also seem to be present: one in the centre of the plateau (Units #76 and #91; at which coordinates nothing was encountered during test-trenches), and a second possible site just outside the northern edge of the research area.

[2] Coarse Ware

When looking at the mean-maps, this material class seems to avoid the sites located during archaeological excavation (how and why is unsure, as the material was found during the excavation-part of the project). Both site II and III are lacking the material. The place where it seems to be centered is the middle of the plateau, where no distinct sites were found. In addition, the only link we can see with site III is an increase of material just outside the site area (towards the south-east).

The median-maps provide the same picture, although now in a medium / high amount of significant (site II). In addition, the off-site material is now also significantly more visible. Concluding, we can thus say that this ceramic-class is not limited to the two expected sites, and does not provide proof to be site-specific.

[3] Cooking-ware ('Ceramiche d’uso comune')

Statistically the material is centred on the sites (in the mean-map), but also clearly visualises the centre of site III. An additional amount of significant material in the middle of the plateau, and just to the north-east of site II. The rest of the plateau seems to be void of the material.

The median-maps provide a similar picture, though in more significant numbers. Especially the increase of significance on site III is quite notable, as well as the concentrations of the material from site II towards the centre of the plateau. Only within the dispersion on site II the centre of the site still seems to be definable.

[4] Vernice Nera

In the mean-maps the material is confined to the most central units of site III, and additionally, though in less amount, on site II. This is in contrast with the picture provided by the median-maps, where we can see a significant dispersion of the material on site II and III in equal amount. This might mean that there were some outliers of influence on the mean chi-square analysis. The off-site material towards the northern end of site II is now also much more significant.

[5] Sigillata Italica

The material seems centred in both on site II and III, as well as a quite significant possible site towards the north-western end of the plateau (although no site was found here in the test-trenches). The dispersion of material seems
to coincide with the centre of site II, and located slightly to the North of site III.

The dispersion of material seen within the median-maps is quite similar to those of the average-group, but now more defined in numbers and slightly more dispersed in nature. This is the case both on the two sites II and III, as well as the possible site at the north-western end of the plateau (now even extending to the middle of the surveyed area). This large dispersion of material on both sites might be connected to the nature of conservation of the ceramic material: such fine-wares tend to break into relatively small pieces, which can travel quite some distance in the plough-soil.

The dispersion of this material class is almost identical to that of the above mentioned sigillata italica. The dispersion on site II has however slightly moved towards the west of the site (instead of being placed in the centre of the site, as is the case in site III). The median-maps are the same as those of the mean, though slightly better defined. Again, the nature of dispersion is linked to the nature of conservation of the ceramic-type.

[7] Dolia
The dolia are literally limited to the central areas of sites II and III. The rest of the plateau is completely lacking the material class (except for one speck in the centre – Unit #70; probably caused by an error in the dataset, as no subsurface evidence was located). One additionally point of interest is the fact that the centre of site II (as defined by excavation practices) was completely void of the material, whilst the surrounding units have a quite high value. The reason for this anomaly is unknown, but it might be possible that the material was simply not brought to the surface by ploughing activity, or that the material was simply not there. The latter might be the case, as no dolia were found in the excavation either. The storage area of the building must therefore have been placed somewhere else (or storage was limited to the use of amphorae, which were uncovered on-site).

[8] Bricks / (Roof)Tiles ('Laterizi')
The dispersion as defined in the mean-maps is again limited to the two sites (site II and site III; in which the centre of the latter is still visible in the spread of the material), except for one single speck in the centre of the plateau (Unit #39).

A completely different picture is given by the median-map. While, the material still seems to be mainly located on the sites, it spreads in significant numbers over the entire plateau (a class literally covering every unit). The high outliers of the sites must have obstructed the full analysis of the data, making the site-centres impossible to define on the density-maps.

[9] Floor / Pavement ('Pavimenti e Rivestimenti')
A similar image is provided by the pavement-class. Again it seems in the average-group that the material is limited to the sites themselves (with the centre of site III still clearly visible), but when comparing it to the median, we can see again that the material covers the entire platform (again there are issues with extremely high outliers, already discussed in the methodology above).

[10] Total pottery (Archaic & Republican)
When looking at the overall pottery dispersion on the plateau (mainly including sherds from the Archaic and Republican period) we can see that it is centred mainly on site II. In lower amount this might also include the republican centre of site III. The surrounding units however, which make up part of the later (larger) villa-complex are lacking the material. When comparing this to the map of the median, the material seems to cover the entire plateau. Again, this difference in significance between the mean and median must be related to the issue of extremely dense-packed units on the three sites (i.e. the density-outliers disturbing the mean material dispersal).
Chapter 5: Conclusion

Part E-I:

-Reflecting on the Thesis-
Introduction
This part of the attachments will not provide any new outcomes, but reflect on my own research as presented in this thesis. It discusses how my research fits into (and inevitably influences) the methodological discourse, how I dealt with the encountered case-studies, and re-evaluates the recommendations I brought forth.

A reflection on my own thesis
As a first point of critique, it should be stressed that this project is not the first (or only) publication trying to deal with the problems surrounding the farmstead and villa site-labels. Many have gone before, although not all have truly succeeded. The most prominent source to mention (and an inspiration for my own thesis) is the 2001 article of Terrenato: “The Auditorium site in Rome and the origins of the villa”. In this article Terrenato attempted to give an overview of several recent publications that strove to present a global definition of Roman Republican Villae (as well as present the obvious difficulties related to the subject). The publications he discussed ranged from broad architectural analyses of the sites (which pay little to none attention to the particular historical and geographical context of the buildings), to more comprehensive treatments of the phenomenon as a whole (although Terrenato himself labelled these interpretations as rather “synthetic and somewhat simplified”; 2001, 5). A similar range in cases can be found in the data-set I discussed in this thesis. Generally speaking, we can thus conclude (like Terrenato) that the site-type has been discussed on a variety of levels, but is still lacking certain attention to detail. I therefore hope that my thesis had brought some additional points of interest, which can be useful for other researchers.

A second aspect is related to the collection strategy of my case-studies, especially my initial preconceptions towards the integration of ‘non-academic’ sources (including rescue-excavations). Throughout the history of scientific archaeology, academic researchers have almost always looked a bit “crooked” towards contract archaeology. Their opinions on the commercial branch of archaeology have diminished the work of thousands of professional archaeologists as: not quite "real" archaeology (Black & Jolly 2003, 11). A primary reason for its bad reputation is the presumed haste of their work-method, whilst theoretical discussions within the field have determined that it takes time to develop a good work method. In some cases, the speed with which commercial archaeology proceeds has led to the worst aspect within the field: “archaeology by default” (Black & Jolly 2003, 11). I must admit that I myself was also somewhat hesitant to include published cases of this type within my data-set, but eventually had to include them as the purely scientific examples were lacking.

From an evaluation of the incorporated cases however, it must be said that this bad reputation is (at best) only partly deserved. Although it is true that there are fundamentally differences between academic research and commercial funded projects, it seems that it is not the hastily investigation is the true difference, but the measurement of control. Even though both groups have to work around budgets, permits, and bureaucracies, which limit the well-crafted ideas, they can handle it differently. Academic researchers exert their own control over this process, deciding: where to work, when to work, what kind of questions are of interest, to what scope the project is set, and how to prioritize. Within the commercial field however, most of these decisions are out of the researcher’s hands (leading to a more creative way of problem-solving, but always with its restrictions). “The study area is prescribed by the sponsor, and the schedule is at the mercy of funding and the construction schedule.” (Black & Jolly 2003, 42). Commercially investigated archaeological sites should thus not be condemned immediately, but incorporated within comparative research at their own right. On a further note, one must add that the commercial projects have a very broad range (both in the period and material classes they investigate), reflecting ‘total archaeology’, whilst academic re-

---

163 E.g., Smith 1997 or, to a lesser extent, McKay 1975.
164 Mielsch 1987; Carandini 1989b.
165 Contract archaeology involves a professional work-force which carries out archaeological investigations on behalf of third parties (according to the terms of legally binding contracts, won through competitive tendering; Darvill 2008, 107).
search often has a more focused (and thus limited) research subject. In the case of the Republican farmsteads, this is an advantage of commercial archaeological projects, as most scientific researchers do not choose to investigate such sites.

Third and finally, I have of course realised that some of the adaptations and suggestions for the classification of sites (both in survey and excavation archaeology) I have brought forth in this theses will not be universally agreed upon. The guidelines provided here are therefore than also not intended as a particular straitjacket (as was warned for by Grinsell et al. 1974, 7). They are intended to start a new part in the discussion of site-types and classification systems, as well as serve as a base for discussion among lecturers and students. Hopefully, my work has added in the methodological search for answers.