URBANISM IN ANCIENT ARCADIA

A comparative study of city planning and residential architecture

Master thesis in Archaeology

Alexander Bizzozero

November 2011

Department of Archaeology, History, Cultural Studies and Religion

Preface

There are many that are owed thanks for their help in my work with this thesis. First of all I would like to thank my tutor, Erik Østby, for all the feedback and good suggestions for my work. Thanks also to the Norwegian Institute in Athens, and especially Katja Andersson, for helping me with accommodation during my stays in Athens, answering questions and generally make me feel welcome. I also wish to thank everyone at the Nordic Library, which has been a vital resource during my work. Thanks to the Red Lion crowd in Athens, particularly Jonathan Tomlinson and Gry Nymo, for all the fun and good company. I would also like to thank my friends and family in Norway for their support and interest during my work on this thesis. Lastly a big thank you to my wonderful fiancée, Emily de Bree, for all her help and support. I could never have done it without you.

Alexander Bizzozero November 2011, Nailsworth

Summary in Norwegian / Sammendrag på norsk

I denne oppgaven ser jeg på byplanlegging og boligarkitektur i Arkadia, en region i innlandet av Peloponnes-halvøyen i Hellas. Målet er å finne ut hvilke byer i denne regionen som har spor etter byplanlegging og boligarkitektur, og se på hvordan utviklingen i denne regionen ser ut i forhold til det som er kjent fra andre deler av Hellas. Jeg har valgt ut syv arkadiske byer som jeg konsentrerer meg om. De viktigste av disse er Kyparissia i vest-Arkadia, Stymphalos i nordøst og Lavda i nordvest. Jeg ser også i noe mindre grad på Tegea, Mantineia, Megalopolis og Asea. De fleste av disse byene viser tydelige tegn på å ha blitt lagt opp etter en plan, og består av et nettverk av rette og parallelle gater. I mange av byene har det også blitt utgravd bolighus av forskjellige typer som er kjent fra andre deler av Hellas. Etter å ha beskrevet disse byene går jeg over til å sammenligne dem med det materialet som finnes i Hellas generelt. Dette gjør jeg ved å se på hver byplan og hus i forhold til tre godt dokumenterte byer jeg bruker som eksempler. Ut i fra dette konkludere jeg med at det finnes et relativt stort antall kjente steder i Arkadia med funn av både byplaner og boligarkitektur. Generelt er disse dog relativt lite undersøkte, og det er stor sannsynlighet for at de vil kunne gi betydelig mer informasjon dersom mer grundige undersøkelser blir foretatt. Jeg kommer også frem til at både planleggingen og hustypene i de Arkadiske byene ser ut til å stemme godt overens med det som er kjent fra resten av landet. Dette tyder på at Arkadia, på tross av sin avsides plassering og utilgjengelige terreng, har fulgt en tilsvarende utvikling som mer sentrale regioner av Hellas. I noen tilfeller, særlig i Tegea, er gateplanen uvanlig moderne i forhold til dateringen.

Table of Contents

List of Illustrations and Tables

Chapter 1

Introduction

Urbanism and residential architecture in ancient Arcadia. There are two separate decisions that were involved before arriving at this theme for my master thesis in classical archaeology.

Greek urbanism, and city planning and residential structures in particular, first caught my interest during my work with my bachelor degree in archaeology, though in a somewhat unusual way. Whenever Greek architecture was mentioned in the literature pertaining to the courses, I was struck by the strange balance of themes these texts would include. Most authors of books and other works on Greek architecture seem to spend the vast majority of their time describing the impressive Greek temples and other large public buildings. The relatively simple and mundane houses of the people thus receive a surprisingly small amount of attention. This tendency of the interest to lean heavily towards the more monumental aspects of prehistory can be traced back to the very beginnings of the archaeological discipline. With the evolution of the discipline towards the present day this tendency has diminished, as interest has turned towards the whole of prehistory. We now realise that the houses people lived in can tell us as much, if not more, about the period they are from. However, despite this development the imbalance is still plainly visible in much of the available literature concerning Greek architecture. It was this exaggerated focus on one topic that made me instinctively more interested in the other.

In order to narrow down the wide field of urbanism in Greece I needed a region within which I could make a more detailed study. The region known as ancient Arcadia in the inland of the Peloponnese peninsula in Greece seemed a good choice for several reasons. The region consists largely of high mountains separated by valleys of varying size which are the only areas suitable for human settlements. This topography means that the area is not too densely populated, which somewhat limits the available material. The rugged and inaccessible nature of the landscape tends to cause the region to be seen as relatively rural and underdeveloped, and that new ideas were slow to arrive here. Arcadia has also tended to be of relatively low interest to archaeologists, making the material even more manageable. Another advantage is that the work that has been done on the region has mostly been performed by foreign schools rather than Greek archaeologists. This means that most of the published reports and other material about the region is available in English, German or even Danish, making it much more accessible to someone with limited or no knowledge of the Greek language. Among these foreign schools that have been active in ancient Arcadia is the Norwegian Institute at Athens, with the project at Tegea. This connection also made the choice feel

logical, and there is even the possibility that my work might be of some use in the Norwegian Institutes further work in the region of ancient Arcadia.

1.1 Research questions and aims

The main goal for my work with this thesis is to see how the cities found in the region of ancient Arcadia compare to cities found in other parts of Greece. By doing this I hope to be able to shed some light on the development of Arcadia, and see if there is any truth to the idea of it being a backwards and underdeveloped region.

I will start by gathering the necessary information about the region of ancient Arcadia and the Arcadian cities I will be working with. This will include both the general history of the region as well as that of the separate sites. I will also include what information is available on the layout, construction and dating of the cities. This section is both a goal in itself and an important step towards the next goal. To my knowledge there has not been made a summary of ancient Greek cities specific to the region of ancient Arcadia, and information on the region itself is hard to find collected in any one place.

The second goal will be the comparison of this material from Arcadian cities with a number of representative cities from other parts of Greece. This will hopefully allow me to determine the level of development in ancient Arcadia. I will both be comparing cities directly to see if there are any prominent differences in the material, as well as comparing cities of similar dates to see if the development is different from that in the rest of Greece.

So my research questions will be as follows:

- Which known sites in ancient Arcadia have finds of residential architecture and planned cities?
- How are these cities laid out, and what types of residential architecture are found?
- How do the Arcadian cities compare to my chosen examples, and to the general development of cities in Greece?

1.2 Geographical, Material and Temporal limitations

Geographical Limitations

There are two parallel geographical limitations that I will be following in my thesis. The most important one is limited to the ancient Greek region known as Arcadia. Ancient Arcadia is located in the inland region of the Peloponnese peninsula in Greece. Pausanias describes the region in book 8 of his Description of Greece, and it is this limitation of the region I will use in this thesis. The sites I will be looking at in this region are Kyparissia, Stymphalos, Lavda, Tegea, Asea, Megalopolis and Mantineia. It should be noted that there is also a modern prefecture named Arcadia, but the borders have changed over time. This means that two of the sites I will be working with, Stymphalos and Lavda, are now located outside the present day region of Arcadia.

In order to obtain some material with which to compare the Arcadian finds I will also look at some sites elsewhere in ancient Greece. These sites are Olynthus, Priene and Delos. Again, due to the changes of borders, Priene is currently not located within the borders of modern Greece, but in western Turkey.

Material Limitations

The material I will be looking at in my thesis is Greek cities. More specifically I will be focusing on the layout of the streets of the cities, and the residential architecture found within them. By the term "residential architecture" I include all structures that are constructed primarily to accommodate permanent human residence. In relation to the layout of the streets I will also look briefly at the city walls, both circuit- and acropolis walls, as these two are likely to influence the street plan. I will also mention the locations of any public structures and *agora* where these are known.

Temporal Limitations

The temporal limitations that I will work with in my thesis are directly related to the foundation dates of the cities that I will be working with. Thus the period in question starts somewhere between the 10th and 7th centuries BC, with the founding of the earliest city. It ends by the year 166 BC, with the founding of the latest of the cities I will look at. The majority of the sites, however, are dated to the fourth century BC, which will therefore be where the main focus of this thesis is placed.

1.3 Thesis layout

This thesis will consist of three different parts. The first consists of background material, and is found in chapters 2 – 4. In this section I will start by looking at the history of research for the field I am working with. This will include both the history of building archaeology and a summary of the archaeological work that has been done in the region of ancient Arcadia. Here I will also give some information on important terms that I will use later in this thesis. I will then look at the methodical approaches relevant for my work, as well as defining a few classifications for later use. Last in this part I will look at a number of example sites in Greece outside the region of ancient Arcadia, which I will later use in my comparison. The second part, in chapters 5 and 6, contains material from ancient Arcadia. I will start with a chapter giving general background and history for the region of ancient Arcadia. Next will be a chapter on my chosen sites in this region, including their history and topography as well as the excavations performed there. This should answer the first two of my research questions. The last section, chapters 7 and 8, will contain a comparison and a conclusion. In the comparison I will look at the available material from ancient Arcadia and compare this to my example sites elsewhere in Greece. This should hopefully answer the remaining research question. Finally, in my conclusion I will sum up what I have found in the previous sections, and how my research questions have been answered.

Chapter 2

History of Research and Clarification of Terms

In this chapter I will look at what earlier research has been done in the field that I am working with. I will start by looking at the work that has been done in the region of ancient Arcadia. Rather than also including a section here on each of the sites I will be working with, that information will be covered in the relevant chapters. I will then look at the history of research within building archaeology in general. In part two of this chapter I will briefly describe a few terms that I will use throughout this thesis.

2.1 Ancient Arcadia

The inland region of the Peloponnese peninsula, known as ancient Arcadia, is rich in both archaeological remains and literary evidence from ancient times. If it was located in any other country than Greece it would be a primary area for archaeological and historical work. However, with Greece being as rich as it is in archaeological sites and remains, many of them grander and more impressive, ancient Arcadia has been of relatively small interest to scholars through the years. The Greek archaeological work in the region does however date far back in time, with the works of Konstantinos A. Rhomaios and Anastasios K. Orlandos on various smaller temple sites in the first half of the 1900s. Also a number of foreign schools have had projects in the region from as early as the end of the 19th century, though more sporadic than the Greek work, and seldom of great length at any one site. The French were active at Tegea and Mantineia, the British at Megalopolis and Austrian at Lousoi. Also the Swedish worked at Asea, and the Italians at Pallantion. From the beginning of the 1980s there started a trend of returning to these old sites, with many of the foreign schools performing surveys of their previous sites. This area has thus lately seen an increase in archaeological activity. There has also in recent years been new initiatives by foreign schools, often collaborations between different nationalities. Among these are the Greek and German project at Megalopolis and the international project at Tegea initiated by the Norwegian Institute. This new-found interest in the Arcadian past also led to the arrangement of a series of international colloquiums, the first of which was held in 1984 and the subsequent ones in 1998 and 2002 respectively. From the first two of these the proceedings were not published, but the contributions from the latest of these seminars were, in a publication named *Ancient Arcadia* in 2005. (Østby 2005:11-13).

2.2 Building Archaeology

The oldest known publication that can be termed “building archaeology” is De Architectura. It was written by the architect Vitrivius during the Imperial Roman time. This publication shows the development of the classical pillar-types in antiquity. During the renaissance period in Europe the study of ancient buildings grew in importance with the spreading of the view of antiquity as the ideal to strive for. From this time onwards people began travel to Rome and Greece to see the marvels of the ancient cultures. These travellers were often not educated in either archaeology or architecture, but they still made efforts to document the monuments they witnessed. The drawings and descriptions they brought back are today in some cases the most important sources of information regarding those buildings. Especially in those cases where the original buildings have since been destroyed or their state of preservation has severely deteriorated.

The discipline known as historical building archaeology is concerned with the entire aspect of human buildings. This includes the revealing of old buildings, for example through excavation, and the documentation of these buildings, by drawings, plans, photos, models and descriptions. It also encompasses the creation of drawn reconstructions of the structures, as well as the conservation and possibly the restoration of them. Lastly it includes the reinsertion into the buildings original context, by the study of the buildings technical, functional, aesthetic and historic aspects.

While classical building archaeology is only a branch of historical building archaeology, concerned with Greek and Roman antiquity, it is both historically and methodologically the origin of the entire discipline of building archaeology, dating back to the 15th century. (Gruben 2000:258-262).

Building archaeology was not properly established as an archaeological discipline until the 19th century, when the methods used in building archaeology today were developed. This was also the period when the discipline first came to include actual restorations and preservation of buildings. At the end of the 19th century the interest of the practitioners of the discipline grew to include entire towns rather than just separate structures. Town layouts were also studied, starting with the excavation of Pompeii. The widening of scope during this period started the discipline of archaeology on the long journey towards becoming the study of antiquity as a whole, including all the different aspects of ancient civilizations, rather than just their monuments. (Schuller 2002:7-8, Müller-Wiener 1977:153-154)

2.3 Polis

An important term throughout this thesis is the Greek term *polis*. I will here define the term, and look at the history and importance of the *polis* in Greek society.

The emergence of the *polis*

The Greek *poleis* first started to emerge during the 8th century BC. As the kingship weakened this new form of government became more widespread. There is no satisfactory translation for the word *polis*, so I will be using the original word in this thesis. The most commonly suggested translation is 'city-state', though the *polis* in reality was far more than a city, but less than a state. The term does encompass the city itself and the surrounding countryside under its control, but it is the inhabitants that are important, rather than the land or structures. This is illustrated by cases where entire *polies* have been relocated and rebuilt, as the Athenians threatened to do during the Persian wars. In addition to this physical aspect, the term also includes the political organization that the *polis* included and the common social identity shared by its inhabitants. Thus the *polis* is just as much a political and social concept as a physical one.

With the rise of the *polis* some cities simply grew larger and wealthier, while others, such as Athens and Sparta, slowly gained control of and absorbed the smaller villages in their vicinity. The Greek society was accelerating in this period, with populations rising, the beginnings of industry appearing and foreign contacts and trade increasing.

The importance of the *polis* remained, and they continued to grow and prosper throughout the 7th and 6th centuries, reaching their height of glory in the 5th century. Towards the end of the 4th century the *polis* began to lose some of its importance. During the Hellenistic age the Greek society moved gradually away from the separation into *polis*, and gradually turned into a united Greece. Nonetheless, the *polis* continued to be an important concept throughout antiquity and even remained as the system of local government in the Greek parts of the Roman Empire. (Biers 1996:110-111, 132, 154, 194, 248, 284-285).

Importance of the *Polis*

The important role of the *polis* in the Hellenic civilization, both as an institution and as a concept, is usually taken for granted. There are, however, several sources that can be used to substantiate this claim, and show that the ancient Greeks preferred the *polis* to other forms of communities and that they took pride in belonging to their *polis.*

The frequent use of the word *polis*, and the variants thereof, in Greek texts show that the

Greeks could scarcely speak or think of public matters without using the word *polis* and its derivatives. This helps to illustrate the importance of the term, and the concept behind it.

In Greece, in the Archaic and Classical periods, each man belongs, in a political context, first and foremost to his *polis*, which is his fatherland. He might belong to an *ethnos* on a higher level, and be part of a civic subdivision on a lower level, but his *polis* is far more important than these. He would never think of sacrificing his life for either of the former, but he was expected to do so in the defence of his *polis* if necessary. The *polis* created a feeling of common identity based on shared tradition and culture, as well as in some cases a presumed common descent. The full name of a Greek citizen included, in addition to his own name and his fathers name, the name of his *polis* as an indication of citizen status. Aristotle also describes being part of a *polis* as part of human nature. He claims that any person who is not part of a *polis* is either less or more than human. The *polis* is the ideal form human society can take, and any person who does not participate in it, such as women, foreigners and slaves, is thus intrinsically inferior.

Thus we can see that the concept of the *polis* truly *mattered* to the Greeks. They did not only live in *poleis*, they were an important part of their society, and the Greeks found them preferable to any other form of political organization of a community. (Hansen and Nielsen 2004:12-14).

2.4 Synoecism

In this text I will be using the word "synoecism" from time to time, and thus it would be appropriate to clarify both the general meaning of the term and the way in which I will be using it. The origin of the term is the Greek word *Synoikismos*, which means "moving together" or "dwelling together". This word has been used at least since Hellenistic times to refer to the gathering of several communities, either physically or politically or both.

This can be done in a number of different ways. In a physical *synoecism* the populations of any number of settlements, either of *polis* status, smaller settlements, or a mixture of the two, where moved together. They could be moved either to a new-built settlement to form its entire population, or they were moved in to reinforce an existing settlement, where they were to merge with the previous inhabitants. In some cases the contributing settlements were emptied out completely, while in other cases only a part of the inhabitants were moved and the contributing settlements persisted.

A political *synoecism* differs from this in that it was the political power of the settlements that was united. This could be a number of settlements of similar size deciding to unite to stand stronger than they would separately. It could also happen when a *polis* absorbed one or more smaller settlements in order to increase its own influence. They would then often either choose one of their number to become the political centre, or found a new city for this purpose. In some cases

the *polis* would be centred around a group of settlements considered to be a state without having a physical centre of government.

Both the physical and the political *synoecisms* could either be voluntary or forced. The latter was often the case after a war, when a large *polis* would absorb conquered smaller *poleis* or settlements. It should be noted that while a physical *synoecism* would normally also include a political one, the opposite is not necessarily true. It was not unusual for the political power of several settlements to be centralized while the people themselves stayed in their separate homes. (Hansen and Nielsen 2004:115-118)

2.5 Greek City Planning

A vital part of this thesis is the development of Greek city planning. Here I will present an overview of this subject, which will both be an important part of the background for this thesis, and might also be used as a reference in my later comparisons.

Early Greek cities usually started as a minor settlement or similar, which gradually grew into a city. This process, of course, meant that the cities were not very ordered or unified. The streets were often narrow and crooked and the houses were placed with no thought to the appearance or functionality of the city. Cities like these often suffered from a number of problems caused by the lack of an overall plan of their construction. The most common of these being overpopulation, and flooding due to insufficient drainage. (Owens 1991:11-15, Whitley 2001:313-314).

The solution to these problems was found in the form of planned cities. The regular layout of the streets and the regular plot sizes meant that the population was evenly distributed, and the well thought out street system allowed traffic to flow more easily. The planning of the plots and streets could also include drainage systems on sites were this was necessary. Another advantage of the planned city, which made it very suitable for use when founding colonies, was that the uniform plot size ensures that all citizens were given an even share of land, promoting a sense of equality. The same thing could of course create problems when changing an existing city to follow a grid plan, as some citizens would resent the redistribution of land. Thus it is probably no surprise that the earliest signs of planned Greek cities are found outside Greece itself, in the various colonies that were founded by the Greeks. There is evidence of planned cities found that have been dated to as early as the 8th century BC, such as Megara Hyblaea and Old Smyrna. This shows that the knowledge needed to create planned cities was available at that time, even though they are not found within Greece itself before a few hundred years later. (Owens 1991:33-35).

During the classical period in Greece planned towns seem to have become more or less the

norm. The early planned cities often followed a layout known as *per strigas* or *Streifenstadt.* This usually consists of a single main avenue running the length of the site, which is crossed at regular intervals by a larger number of smaller streets creating very long rectangular *insulae* or city blocks. This type of planned city was further formalized by the famous Hippodamos of Miletos. Born in Miletos at the end of the 6th century BC, he is the first known person to be recorded as a "town planner". He has been associated with a number of cities he is said to have planned, including Piraeus and Miletos when it was rebuilt. The exact role of Hippodamos in the development of the city planning discipline is uncertain and the cause of much debate. His importance to the discipline, however, is clearly reflected in the use of the term "hippodamian" when referring to cities planned with a regular grid of streets. These cities are rigidly planned, with straight streets intersecting at right angles and forming *insulae* of uniform size. These are then further divided into a number of identical plots, which can then be used for standardized houses such as the *pastas* and *prostas* types. These plans usually consist of a few major avenues running the length of the site, intersected at regular intervals by larger number of smaller streets running at right angles to the avenues. The increase in the number of avenues shortened the length of the *insulae*, improving the traversability in the city. The central avenues and streets are often wider than the others to allow for the increased traffic, and these also connect to the city's *agora*, main gates and other important locations.

A different way of planning cities also appears in the classical period, aiming to create more visually pleasing cities at the expense of the regularity of the Hippodamian method. Rather than laying out a grid of streets, mostly disregarding or even defying the terrain, these cities follow the terrain, and utilize it to create the best possible appearance. This is best exemplified in the hilltop city of Pergamon. Here the main street follows the terrain, flowing down from the acropolis past the various public buildings and residential areas. (Dinsmoor 1950:214, Ward-Perkins 1974:14-16, Owens 1991: 4-6, 30, 51-57, Tomlinson 1992:69-70).

In Hellenistic times there existed in Greece two separate types of planned cities. The hippodamian, or grid planned, cities remained in wide use. This method was well suited for quickly establishing new cities, especially in potentially hostile areas with a constant threat of attack. Here the need to quickly establish a defensible city easily outweighed the wish for aesthetic qualities. What was usually perceived as the drawback of these cities, the almost military regularity which resulted from this standardized method, was not out of place in those hostile territories where they were built.

Parallel to this trend was the building of more monumental cities that started in the Classical period, when cities were instead planned to create as visually stunning appearances as possible. This

way of building cities is further developed in the Hellenistic period. The cities are often placed in very rough terrain that would make grid planning impossible. The uneven terrain is used in combination with extensive terracing to create an interesting and dynamic cityscape, and buildings are placed to ensure the most impressive appearance. With this, less regular, type of city the more varied *peristyle* houses take over from the earlier types. Though these cities are often built over a longer period of time, the overall plan ensures that when completed they appear as unified and 'complete'. It should be noted that without extensive excavations and reconstructions it is difficult to differentiate between these cities and unplanned cities that have grown up naturally. (Ward-Perkins 1974:18, Owens 1991:74-75).

Chapter 3

Methodical approaches

In this section I will be looking at the various methodical approaches that will be relevant to my work with this thesis. I will begin by going through the approaches that I will be using actively in my work. I will then lay out a plan for how I will structure the information I gather concerning the various cities.

3.1 Methodical approaches

The most important method for obtaining information for this thesis will be by studying anything that has been published about the relevant archaeological sites. This will in most cases be limited to the excavation reports from the sites, though for some of the more important locations there might also be other sources available. When working with excavation reports I will be focusing equally on the text of the report and on any maps, plans and photos accompanying the report. It is often possible to extract a large amount of extra information from the illustrations accompanying the reports, especially concerning topics deemed less important or interesting by the authors. This could be particularly important with my chosen topic, as houses and street layouts can easily be forgotten in favour of the more impressive city walls or temples or such.

I will also be using Typology and Classification, where these methods have not already been applied to the material that concerns this thesis. Classification, the sorting of material into categories based on their attributes, is one of the oldest methods used in archaeology. It is most often used on artefacts, which are usually categorised based on such attributes as area of usage, raw material or visual attributes such as size, shape, colour or decoration. Typology is often used in conjunction with classification, sorting the established categories into a sequence of development. This sequence can then be used to set relative dates for the objects, as well as for any further finds of the same type. Unfortunately, for this thesis, typology will most likely be of less use. There is far too much individual variation and too few examples of both house types and city plans, so a typology created from this material would not be reliable. (Renfrew and Bahn 2008: 98-99, 104-108, Biers 1992:51-54).

Classification of Houses

In this thesis classification is probably most relevant when looking at the different houses found at the sites. Residential houses are usually categorised based on the layout of the rooms of their

ground floor. The layout has been chosen as the main attribute in front of other aspects, such as building material or construction technique. It is the attribute which is the easiest to observe, as only the foundations of the walls are usually preserved on the sites. The courtyard, being the most easily identified of the rooms, often forms the basis for the classifications. The house types which I will mostly be working with here are *Pastas*, *Prostas* and *Peristyle* houses.

Pastas House

Pastas houses become standardised in the beginning of the 5th century BC. They are usually found on plots that are approximately square in shape, which are separated into a northern and a southern section. The courtyard is located in the southern half of the house, bordering the south wall. It is usually flanked on both sides by workshops and storage rooms. The northern half of the house is entered through a room which is open towards the courtyard apart from a row of columns. This section is taken up entirely by the livingquarters, and is usually in two storeys. (Hoepfner and Schwandtner 1994: 268-269)

Prostas House

Prostas houses are found standardised from around the same time as the *pastas* houses. The *prostas* houses are a further development of the one-roomed *megaron* houses from the Greek palace culture. They are mostly found on longish rectangular plots, often with a length several times their width. The northern part of the house is taken up by the livingquarters. These usually take up about a third, or slightly more, of the length of the plot, and are often in two storeys. South if this lies the courtyard, which is also normally about a third of the length of the plot, covering its entire width. The southern end of the plot is taken up by workshops or storage rooms. Alternatively these rooms could be placed along one of the long sides of the plot, in which case the courtyard would extend all the way to the south wall. (Hoepfner and Schwandtner 1994: 269)

Peristyle House

Peristyle houses become common from the middle of the 4th century BC. They are usually larger houses compared to the *pastas* and *prostas* houses, and can be found on plots of varying, often irregular shapes. The greater size allows them to accommodate a full peristyle surrounding the courtyard. Around this again lie rooms on all four sides, with no clear standardised system for the

location of rooms of specific functions. (Hoepfner and Schwandtner 1994: 270).

Classification of City Plans

The layout of the streets of a city can also be categorised into several different types based on the layout of their streets and the placement of *insulae* for houses as well as public structures and sanctuaries. Early cities usually grew up gradually over a longer period of time, and the layout was therefore often labyrinthine and disorganised. Later cities, often those founded as colonies or rebuilt after being destroyed were sometimes laid out according to a preconceived plan. This would usually consist of straight, evenly spaced streets meeting at right angles. Even later, as these principles lose their importance, cities are instead planned to be aesthetically pleasing, following and using the terrain to best effect. The categories of city layouts which I will work with are unplanned, *per strigas*, hippodamian and monumental.

Unplanned

Unplanned cities have grown up naturally, being expanded when and where it became necessary. These cities usually consist of relatively narrow streets following the terrain of the site. Houses and public buildings are placed wherever there is room, and the overall impression tends to be one of disorder. Ancient Athens is a typical example of this type of city, with its winding labyrinthine streets and small irregular houses.

Per Strigas

Per strigas is a system of city planning much used in the early colonisations in the 8th and 7th century BC, such at Herakleia, Pontike and Himera. In its simplest form it consists of a single major avenue running the length of the site. This is intersected at regular intervals by a number of smaller streets, usually running perpendicular to the avenue and more or less parallel to each other. This creates series of strips of land, or *insulae*, that can be further divided into plots for residential houses. A few additional avenues are common in later examples, to ease the flow of traffic. The agora, public structures and sanctuaries are usually placed independently from this plan. (Hoepfner and Schwandtner 1994:2-4, 250)

Hippodamian

The hippodamian method of town planning is accredited to the famous Hippodamos of Miletus. It is a further development or improvement of the *per strigas* system following certain geometrical guidelines. The basic layout is similar to the *per strigas* layout, but with the introduction of a greater number of avenues giving *insulae* that are closer to square in shape. The agora, public buildings and sanctuaries are usually placed in accordance with the plan, taking up the place of one or more complete *insulae*. (Hoepfner and Schwandtner 1994:2-4, 250)

Monumental

Monumental cities are planned, but not with any overall grid system covering most of the site. They are often found in rugged terrain, which is utilized for the best visual effect, and the buildings are placed for the most impressive appearance. Residential buildings are placed as the terrain allows, either singly or in *insulae*. The public structures and sanctuaries are placed where they will have the greatest visual impact. This type of planning can be seen in ancient Pergamon, where the overall effect creates a unified city. (Ward-Perkins 1974:18, Owens 1991:74-75)

3.2 Structure of City Analysis

In order to create a basis for my later comparisons, and to structure the information I gather about the cities I will separate the data into sections. Here I will introduce each of these sections and what they will include.

History of the city

The history section for each city is meant to create a background for the rest of the information. It will contain a summary of the history of the city, where this is known. This information will be taken from the excavation reports or other works concerned with ancient Greek cities, or directly from the historical sources. In those cases where the site has not been identified as a known ancient city I will instead give some detail of any theories around its identification. These theories will usually be discussed in the excavation reports, which will most likely provide the most up to date information on the subject.

History of the investigations

In this section I will give a summary of the history of excavation work for the site. Here I will include information on the time and extent of the excavations, as well as some details on the methods used where these differ from the standard trenches. The obvious source for this is of course the excavation reports, with help from any maps or plans of the site in order to find the exact location of trenches or points of interest such as structures, streets or city gates.

Topography

For each of the cities I look at there will also be a section describing the topography of the site itself and the terrain surrounding it. This will include the lie of the land in the area, as well as its relation to features such as rivers and lakes. This will help give a better understanding of the nature of the city. The topography of the site might influence the way the city is laid out, and the terrain chosen for the location might also change over time, as I will look at in the later chapters. The topography section will also include a brief description of the fortifications of the city, focusing on the circuit wall and its gates as well as the location of the acropolis. These features usually follow the topography of the site to a large degree, and it therefore seems logical to describe them together.

The information for this section will come from several different sources. Some will be available in the excavation reports, in particular any maps and site plans that are included. In some cases information closer to the relevant time of the settlement can be found in the writings of Pausanias. For the sites that are located in ancient Arcadia I will also be able to supplement the available information with my own observations from my visits to these seven sites around the region.

Planning of the site

One of the two main parts of each city section is the planning, this will detail the layout of the streets, and the planning of *insulae* and the plots within them. From this information I will hopefully be able to determine whether or not the city was laid out according to a plan or if it grew up naturally over time. The information for this section will mainly come from the excavation reports. In those cases where the excavators have taken interest in the planning of the site, the text itself is likely to give much of the necessary information. Otherwise I will study any available maps, plans and photos of the site in order to find out how the roads of the site were laid out. Even if the

roads are not marked or visible on the illustrations it can still be possible to identify them. Gates in the circuit walls of a city usually line up with a street, and straight streets are likely to go directly from one gate to another. The outer walls of houses and other buildings that are not shared with a neighbouring structure are also likely to have lined a street. Where the outer walls of several building from the same period match up with a straight line, possibly drawn between two gates, it is therefore logical to assume that a straight street has existed.

Structures on the site

The second of the two main sections is the structures, this will detail what is known of the residential architecture found on the sites. I will describe the building techniques and materials used in the construction of the houses, as well as the layout of the rooms and their use where this is known. I will also note any available information regarding the finishing and decoration of the walls and floors, such as painted stucco or mosaics. This will give me the basis I need for comparing the houses found in ancient Arcadia with what is known from other parts of Greece. The information needed for this section will mostly come from the excavation reports, along with any relevant illustrations such as floor plans. On any sites where a larger number of houses have been excavated I will probably select a few representative houses for a more detailed study.

Dating of the site

For each site I will also gather any available dates, such as the founding of the city, the time of construction for the houses and possibly the fortifications, and lastly the time of the city's destruction or abandonment. Most of these dates will probably be found in the excavation reports, though some founding and destruction dates might come from historical sources.

Classification

In this last section I will look at first the layout of the city, and then any excavated houses, and attempt to classify them according to the classes I specified earlier. This will then create the basis for my comparison.

Chapter 4

Comparative Sites in Greece

In this chapter I will look at cities outside ancient Arcadia, in other regions of Greece. Due to the limits set by the size of this thesis I will choose three cities to use as examples for this. These cities will then form the basis for the comparison with the Arcadian cities I will be looking at below. To get the best possible results from the comparisons the chosen cities must adhere to certain criteria. They should first of all be adequately explored from an archaeological viewpoint, to make sure the necessary information is available. The cities will also need to create a representative picture of the Greek city. Thus I will need cities of the various types that are known, and from different periods in time.

From these criteria the first choice is fairly obvious: Olynthus. The city of ancient Olynthus is located in northern Greece, on the central part of the Chalcidic peninsula. First of all it has been the subject of one of the most extensive archaeological excavations in Greece or perhaps anywhere, with over one hundred buildings uncovered. This excavation was well documented and published in a 14 volume series of books. It is also peculiar in that it is built in three distinct phases at different times, making it suitable as an example in several different periods.

My next choice is Priene, located near the western coast of what is today Turkey. The archaeologists working on this site meant to excavate the entire surface area of the site. Despite the fact that these plans were abandoned after only a third was completed, there is still a large amount of information available. The date of its founding is approximately half a century after the last construction phase at Olynthus.

The last of the cities I will look at here is Delos, which is located in the Cyclades on a small island of the same name. This city is well known from an archaeological viewpoint, and the date of its construction is about one hundred and fifty years after that of Priene.

Together I believe these three cities give a quite accurate picture of ancient Greek cities through the Archaic, Classical and Hellenistic periods. I will now look more closely at each of these sites, focusing mostly on their layout and construction but also looking at their history, topography and dating.

4.1 Olynthus

History of the city

The city of ancient Olynthus is located on the Chalcidic peninsula in northern Greece, about 2,5 km from the coast between the western and the central one of the three 'fingers'. The hilltop which would later become the location of the oldest parts of the city first saw use in the neolithic time, though only for a short period. The city itself was founded at some point between the 10th and 7th century, and was later expanded in two stages. In the first expansion, which took place in 432 BC, Olynthus absorbed a number of smaller settlements through *synoecisms*, in order to better be able to defend against the Athenians. To make room for the new inhabitants a second hill, located just north of the original one, was added to the city. The city was enlarged again during the 4th century, this time onto the plain below the two hills. (Robinson and Graham 1938:18, Cahill 2002:23-24, 34, Flensted-Jensen 2004:835-836).

During the 5th and 4th centuries BC the Chalcidic League, of which Olynthus was the capital, grew more and more powerful. In the 4th century they came into conflict with the Macedonians, leading Philip II of Macedon to decree that there wasn't enough room for both of them. Olynthus was captured in 348 BC, and its population sold into slavery. Only a few settlers returned to the site after this, and these made little impact either historically or archaeologically. (Cahill 2002:24-25).

History of the investigations

The excavations on the site of ancient Olynthus were performed in four seasons in the 1930s. The excavations were led by Professor D. M. Robinson of the Johns Hopkins University under the American School for Classical Studies at Athens.

By today's standards of archaeological fieldwork the excavations performed were perhaps too rapid, and in some cases even careless. The records that were kept were also far from complete and not as detailed as one could have hoped for. Despite all of this, the excavation is a remarkable accomplishment. It is more extensive by far than could possibly be achieved today, which more than makes up for the sometimes superficial documentation and somewhat rushed approach. The result differs greatly from normal archaeological investigations of cities at the time, where only a few houses are examined to establish a type. Here, instead, over one hundred houses were excavated. This represents a significant portion of the city, and gives a far more detailed and in-depth view than can achieved otherwise. During the work on the site Robinson shows an amount of

interest in the mundane details of the site which is highly unusual for the time. This he keeps up through four seasons of work, despite the absence of the stone sculptures, temples, theatres and towering city walls which were the main interest of most classical archaeologists in the 1930s. (Cahill 2002:73, 82, Flensted-Jensen 2004:835)

Topography

The hill which was the location of the earliest structures of the site has by the excavators been named “South Hill”. It measures approximately 550 meters running from south-southeast to north-northwest, and is about 200 meters wide at the widest point. Its top rises 30 to 40 meters above the surrounding plains, and the steep slopes on all sides make it an easily defended position. The large level surface of the hill would have been sufficient to house between one and two thousand inhabitants. (Robinson and Graham 1938:18, Cahill 2002:23).

The hill onto which the first expansion of the city took place stretches directly north from the original hill, the two of them connected by a ridge. This new hill, named “North Hill” by the excavators, is substantially larger than the South Hill, but the flat top lies at about the same height above the surrounding terrain. Its sides are less steep, but they are still steep enough to have given some help in protecting against attacks. The second expansion of the city brought the settlement down onto the plain to the east of the North Hill. This area has been named the “Villa Section”, from the rich nature of the houses discovered here. With both of these expansions, the full size of the city measured approximately 1,200 meters from north to south, and 600 meters east to west. (Robinson and Graham 1938:18, Cahill 2002:23).

The fortification wall has been identified on both the North and the South Hill. Only the 80 cm wide stone base is left, but this is believed to have been topped by a mudbrick superstructure. It seems to have followed the contours of the two hills, as one would expect. It is believed to have been expanded to also include the Villa Section when this was added to the city, though this has not been confirmed by excavations. (Cahill 2002:29).

The two hills of ancient Olynthus rise from the rolling fields, right next to the Sandanus River. The city was thus well supplied with water, and the surrounding land was said to be particularly fertile. The region is also said to have been rich with the figs that gave the city its name, as well as timber, grapes, olives, grain, beans and fruit. (Cahill 2002:23).

Planning of the site

As the town was built in three distinct phases, each in a different style, it seems logical to look at the planning of the city one section at a time.

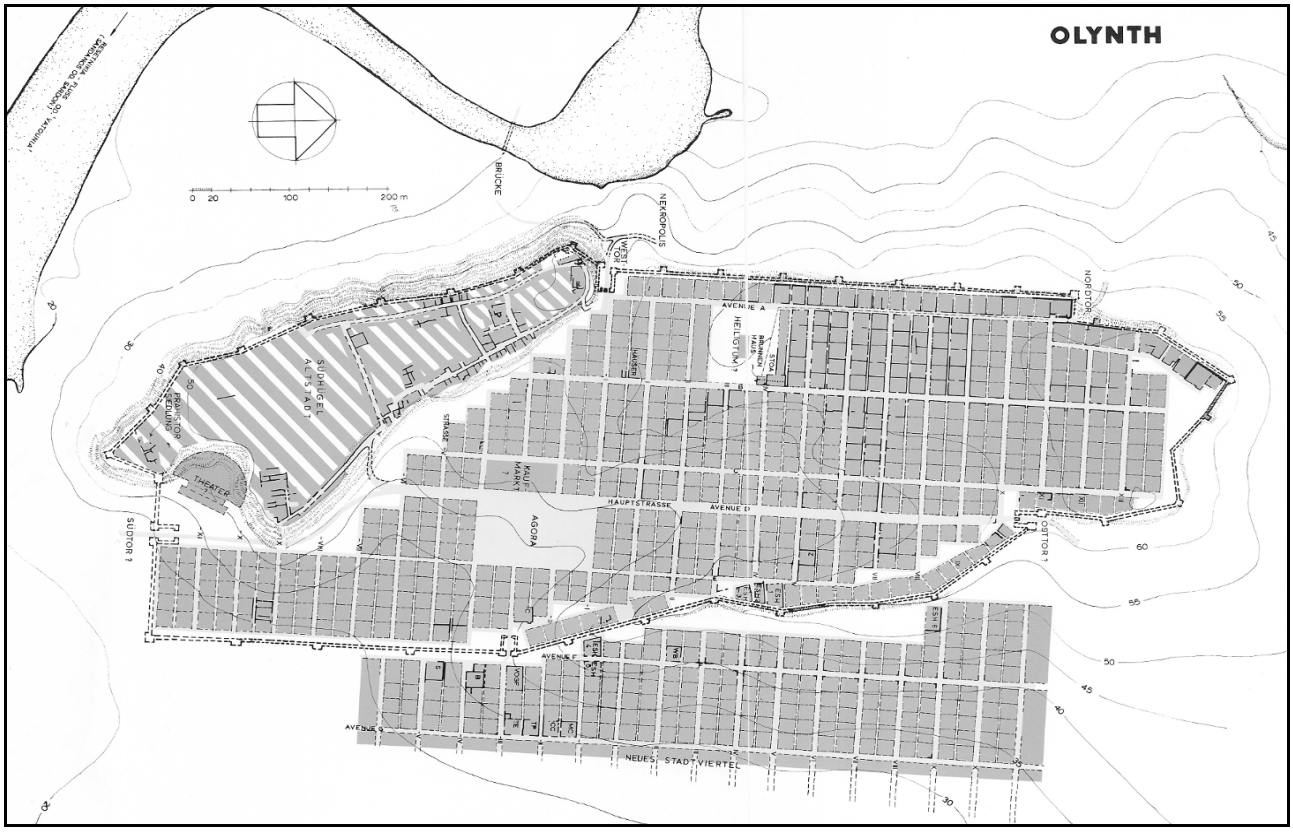

Illustration 1: City plan of Olynthus

The South Hill

The South Hill, which holds the earliest parts of ancient Olynthus, has a very simple network of streets. Two main roads run along either long-side of the hill, connected by two streets running across the width of the hill at more or less regular intervals. However, none of these streets run straight for any length, and none of the intersections are perpendicular. The houses in this section are also built in an irregular fashion. A narrow row of small houses and shops separate the main roads from the city walls and line the rest of the streets. The areas between the major streets have probably been further sectioned by smaller streets and alleyways. (Robinson and Graham 1938:18, Cahill 2002:27, Flensted-Jensen 2004:835).

An area of public buildings has been identified on the northern end of the hill, though parts or all of this is believed to have been added at a later time. There is also a theatre placed on the slope of the southeast edge of the hill. (Cahill 2002:27, 32).

The North Hill

The North Hill, being the first addition to the city of Olynthus, was laid out according to a clear and regular grid plan. Five avenues run along the length of the hill, aligned about 4 degrees off of north-south. The four western of these run from the north end of the North Hill down to the northern edge of the South Hill, while the easternmost one continues past the eastern corner of the South Hill. These avenues are intersected by a total of 24 numbered streets, crossing at right angles and at regular intervals. Most of these streets run the full width of the city, but some are interrupted by large public structures or the layout of the site in relation to the older parts of the city. The general width used for both avenues and streets across the North Hill seems to have been approximately 5 meters, with 2 meters added to the main avenue passing the *agora* in order to accommodate the greater amount of traffic. The avenues of the North Hill were by the excavators labelled A to D from west to east. The streets were labelled from i to xiii starting at the south end of North Hill, with the streets south of this later being added as -i to -xi. (Robinson and Graham 1938:19, Cahill 2002:23, 27).

The city blocks, or *insulae* formed by these streets and avenues are generally about 35 by 86 meters, probably 120 by 300 feet. There are 32 full *insulae* of this size in the North Hill area. These were then divided into ten plots, arranged in two rows of five separated by a narrow drainage ditch. This gave square plots with a size of about 58 feet each way. The stone foundations of each row of five houses within an *insula* appear to be intimately bonded together. This suggests that the entire row was constructed as a unit, rather than each house being built separately. The *insulae* are identified by the labels of the roads intersecting at its southwestern corner, and the houses within each *insula* are labelled from 1 to 10 starting at the northwest and alternating between the rows while moving east. Some irregularities within the insulae do occur, with some houses varying in size at the expense of their neighbours. There are also irregularities in the shape and size of the *insulae* themselves. On the east side of the hill some *insulae* are shortened to allow for the city wall, which follows the contours of the hill. On the south end of the hill there are a number of partial *insulae* due to space restrictions caused by the older structures on the South Hill. Separate from the *insula* system is also a row of houses following the irregular path of the city wall on the eastern and western sides. (Robinson and Graham 1938:33, 36-37, Cahill 2002:27, Flensted-Jensen 2004:835).

Very few public buildings have been identified within the area of the North Hill. In some cases this might be caused by later reuse of the stones, while in other cases it might be due to incomplete excavations. A number of such buildings have, however, been found surrounding an open area in the southwest part of the North Hill. These include *stoas* and a fountain house fed by

pressure pipes from the hills to the north of the city. The use of the area these buildings are surrounding is uncertain. The original excavators termed it an “area for military manoeuvres” (Robinson and Graham 1938:37), while Hoepfner and Schwandner identified it as a possible sanctuary (Hoepfner and Schwandner 1994:Abb 55). Cahill, on the other hand, believes it to have been the *agora* of the city (Cahill 2002:32), apparently disagreeing with Hoepfner and Schwandners location for the *agora* further south and east on the North Hill. (Cahill 2002:32-33, Flensted-Jensen 2004:835)

The Villa Sector

The Villa Sector follows a similar layout as the one used on the North Hill, though the slope of the hill and the placement of the city wall creates an interruption and prevents it from connecting with the older streets. There are two identified avenues, labelled F and G, continuing the system from North Hill. The 17 crossing streets are labelled according to the streets on North Hill which they more or less line up with. The houses in this area are not numbered, as on the North Hill, but are instead given names based on some distinguishing feature in plan, contents or decoration. This method of labelling was probably used both because of the smaller size of this area and lower number of excavated houses, but also due to the higher diversity among the houses. Despite the similarity in the grid system of the streets and general layout, the allocation of space within the separate *insulae* is much more irregular. While the basic concept is still *insula* consisting of two rows of five houses this is less strictly adhered to. There are cases where open areas are left between or around the buildings, possibly due to the enlarged size of one house leaving the neighbouring plots too small for use. In other places full sized plots are left empty, and might have served as gardens for one or more of the surrounding houses. This section also differs from the North Hill in that the houses within an *insula* are all built separately, rather than as one unit, which might have further encouraged the irregularities in plot size and layout. The less extensive excavations in this area mean that there is less certainty concerning the layout of the area. The limits of the area are not firmly established, and no public buildings have been identified. Despite the uncertain extent of the area, and the lack of any trace of a circuit wall, it is believed to have been fortified in a similar manner as the two hills. (Cahill 2002:29-30).

Structures on the site

The houses at Olynthus are built on foundations of unshaped fieldstones set with clay mortar. On top of this the walls were build of adobe bricks bonded with clay. There has been found no evidence

indicating that the outer sides of the walls were covered in any way, but since adobe is easily destroyed by water it is likely that it was covered in clay. The thickness of the walls varies between 40 and 50 cm, with no distinction visible between interior and exterior walls. The only exception to this is the interior walls with no corresponding wall in the floor above, and these may be as narrow as 20 cm. The insides of the walls was covered in plaster where this was necessary to prevent moisture damage, and in other places covered in decorative painted stucco. The roofs were covered with terracotta roof tiles. (Robinson and Graham 1938:223-232, 291).

Illustration 2: House plans from Olynthus

The houses excavated at Olynthus have been classified as 'pastas type' houses, to distinguish them from the 'prostas houses' found in for example Priene. This classification of all houses is made because of the great similarity between the majority of the houses in Olynthus. The standard plot in Olynthus is roughly square, and measures approximately 17 meters across. The houses are usually centred around a courtyard located in the centre of the southern half of the house. North of the courtyard runs a wall separating the house into two roughly equal parts. North of this lies the *pastas*, which is open onto the courtyard and leads on into the main suite of rooms in the house. The southern half of the house consists of the courtyard, often flanked by an *andron* – anteroom complex and a shop, workshop or storage room. A flight of stairs in the courtyard lead up to the upper floor, which covered the north half of the house. This design, along with the southwards facing, allowed the houses to catch the light of the low winter sun while keeping out the cold winds from the north. The courtyard served as the main light source of the house, and windows in the outer walls are either small and placed high on the walls or missing completely. (Cahill 2002:75-76).

Despite this general similarity in layout amongst the houses of Olynthus it is important to

keep in mind that they are in no way identical. Most, if not all, of the houses contain at least minor deviations from the typical layout, and some even differ greatly from it. In some houses the standard plan seems to have been completely disregarded, and even among the houses that follow it there is a large variation in layout, the number and size of rooms and decoration. On sites where only a few houses have been excavated, it is often assumed that all houses followed a similar plan to the ones found, and this is treated as a type. However, to do this when working with Olynthus, with over a hundred excavated houses available, will be to ignore the large variation and richness of the material. (Cahill 2002:82-84).

To further describe the houses found at Olynthus I will here take two examples for a more detailed study. For this I have chosen 'House A vii 4' on the North Hill along with 'The Villa of Good Fortune' in the Villa Sector. While these two houses can be seen as representative examples of their types, it is important to remember the great variation found among the houses.

House A vii 4

House A vii 4 is, as the designation implies, the second house from the west in the southern row of its *insula*, which is located northeast of the intersection of avenue A and street vii. The south-facing entrance to the house opens directly onto street vii. This door leads through a small porch or *prothyron* into the courtyard of the house. This court has further entrances to each other section of the house on the ground floor, as well as stairs along the east wall leading to the upper floor. The courtyard is paved with cobbles, and a drain in the centre of the floor leads water out onto the street. In the northwest corner of the courtyard a door opens into the largest single room in the house. This room is also accessible directly from the street, and is therefore likely to have been used as a shop by the inhabitants of the house. Near the northern end of the courtyards west wall is a door leading into an *andron* and anteroom complex. Both these rooms differ from the rest of the house in having painted stucco walls in several different colours. The *andron*, which is about twice the size of the anteroom, has an elevated platform running along the walls to support the couches. The northern wall of the court is replaced by three pillars. The centre one believed to have been a Doric column, while the two flanking it were made from wood. This opening, which separates the southern and northern parts of the house, leads into a *pastas* which connects all the other rooms in this part of the house. In the northwest corner of the house lies two smaller rooms of uncertain use. East of these lies the *oikos* or kitchen of the house, with a flue in the western end as well as a bathroom in one corner. Directly east of the *pastas* lies a small room probably used for storage. (Robinson and Graham 1938:118-121).

The Villa of Good Fortune

The Villa of Good Fortune lies in the southern end of the Villa Sector of ancient Olynthus, and gets its name from a mosaic inscription found in one of its rooms. It is the largest residence found in the city, and has the most elaborate decorations. Its impressive size and luxurious nature has led to it being referred to as a villa rather than a house, which along with other dwellings of a similar nature led to the name of the area of the city in which it is found. Despite its larger size, covering approximately one and a half of the normal plot size, the Villa of Good Fortune largely follows the typical layout for houses in Olynthus.

The main entrance to the building is from the south, leading through a small *portico* into the central courtyard. The surface of the courtyard is paved with cobbles, with an altar placed in the centre. It is surrounded on all sides by a full *peristyle* with further rooms to the east, north and west. The stairs leading to the upper floor ascend along the wall of the eastern *peristyle*. In the northwest corner of the villa lies what has been said to be the finest *andron* – anteroom complex found at Olynthus. Painted stucco has been found on all preserved walls, while the floors are covered in remarkably fine pebble mosaics that are almost perfectly preserved. The scenes of the mosaics reflect the nature of the rooms, depicting amongst others Dionysos, Eros, Pan and Satyrs, surrounded by ivy-leaf patterns and waves. East of the *andron* lies the *oikos*, or kitchen, with its flue to the east. These rooms are only roughly plastered. In the northeast corner lies another set of rooms resembling an *andron* and anteroom only without the cement platforms to hold the couches. Also here the walls are painted stucco, and the floors are covered in mosaics bearing inscriptions like the one that gave the villa its name. These rooms were probably used as living rooms and to receive guests. The direction of the stairs in the courtyard is opposite of what is normal in the houses of Olynthus. This has lead to the belief that this villa had a second story over all parts of the house except the courtyard, rather than only the northern half as was common. (Robinson and Graham 1938:55-63).

Dating of the site

The foundation of ancient Olynthus is dated by Robinson, who was in charge of the excavations, to approximately 1000 BC (Robinson and Graham 1938:18). However, dates as late as the 7th century BC have been suggested (Cahill 2002:34).

The absorption of neighbouring towns which prompted the expansion onto the North Hill has been dated to 432 BC, which means that the actual planning and building of this area must have taken place shortly after this. The second expansion, creating the Villa Sector on the plains east of

the city, has not been as accurately dated, but the end of the 5th century or early 4th century is considered likely. The destruction of the city by the forces of Philip II has been dated to 348 BC, bringing the prosperous city to an abrupt end. (Robinson and Graham 1938:18, Cahill 2002:23-24, 34, Flensted-Jensen 2004:835).

Classification

The layout of the South Hill at Olynthus appears to be unplanned, as would be expected at a site of that date. The North Hill, on the other hand has a clear grid plan. This plan seems to contain typical traits of both the *per strigas* system and the hippodamian method. The *insulae* are relatively long compared to their width, which is normally associated with the *per strigas* layout. However, the agora and all public structures and sanctuaries are perfectly incorporated into the street grid, taking up various numbers of complete or half *insulae*. Thus the plan seems to be a mixture of the *per strigas* and the hippodamian method of city planning. Of the layout used in the Villa Sector there is insufficient information to say much more than that it appears to be similar to that of the North Hill.

The houses on the South Hill appear to be irregular, as the age and town plan would suggest. The houses on the North Hill are classified as *pastas* houses. The houses in the Villa District are generally of the same type, though the larger ones also share certain similarities with the later *peristyle* houses.

4.2 Priene

History of the city

The city of Priene used to be a coastal city, located on the west coast of Turkey, but changes in the water level means that the location is now some way inland. The name 'Priene' comes from an earlier Archaic city, the location of which is unknown. The new Priene was founded in 352-353 BC in the place where the remains can still be found. It is believed that most of or the entire population was moved from the old to the new city, in what might be termed a *synoecism*.

History of the investigations

In 1894 Karl Humann and Reinhard Kekulé decided to start a project to excavate the entire site of ancient Priene. The first actual trenches on the site where made in 1896, led by Teodor Wiegand after Humanns death the same year. By the year 1899 a third of the surface area of the city had been

uncovered, and the work was stopped. New excavations were started later, led by Wolf Koenig. (Hoepfner and Schwandner 1994:188-196).

Topography

The city is located on the southern slopes of Mount Mycale. In early periods this location was quite close to the shoreline, and as the water levels changed and the coast moved further away, the city was still connected to the sea by a sailable branch of the river Meander.

The acropolis of the city is located on a plateau overlooking the city. It is so high and inaccessible as to be mostly unsuited for structures. The city itself occupies the more even ground below, down towards the river or earlier coastline. The entire site slopes down towards this, and extensive use of terracing was necessary to even out the drop of up to 20%. This terracing is done both between houses, and through differing levels in the floors inside the same house. The steep slope of the ground also means that in certain places the streets themselves had to be abandoned in favour of flights of stairs. The city wall, as is usual, is independent from the grid of the streets of the city. It moves with the terrain to take full advantage of it, and even includes the remote acropolis within its circuit. (Hoepfner and Schwandner 1994:193-194).

Planning of the site

Despite the rugged terrain of the site, the layout of the entire city of Priene adheres strictly to its orthogonal plan. It serves as a good example of a situation where the orthogonal plan seems like it would not be suitable. As mentioned above this made extensive terracing necessary, as well as steps rather than streets on some areas. Even so, there are places where the terrain proved too steep, resulting in quite a large number of incomplete *insulae*. The basic unit in the city is a plot measuring 30 feet east to west, and 80 feet from north to south. All measurements are in Ionic or attic feet – 29,4 cm. Eight of these plots, in two rows of four, make up an *insula* measuring 120 by 160 feet. This size, or even fractions thereof, is used throughout the city. (Hoepfner and Schwandner 1994:190-198).

The main avenue of the city, 7.1 meters wide, runs from the western gate and due east, through the entire city. It follows the terrain in such a way that it runs relatively straight despite the uneven terrain. It does not connect directly with the eastern gate, which because of the terrain is placed further north, but a particularly wide north-south street provides a connection. To the north and south of the main thoroughfare there are a further six avenues which decrease in width outwards from the main avenue.

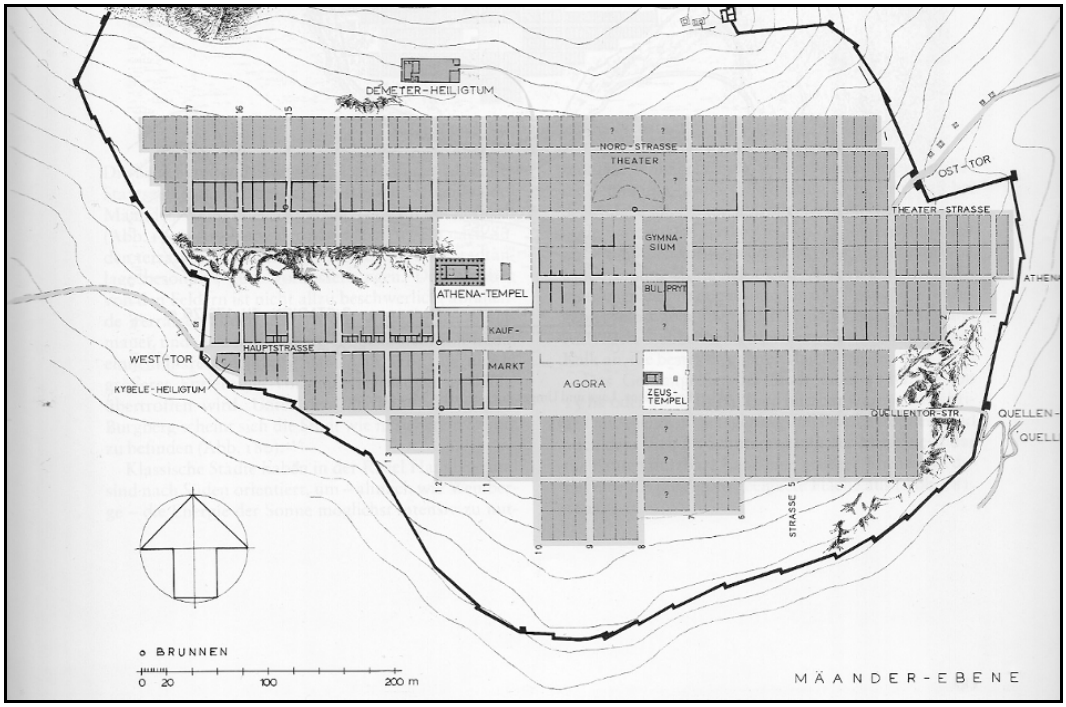

Illustration 3: City map of Priene

A large number of smaller streets, running from north to south up the hillside, cross these avenues at right angles. Also here the streets closest to the centre of the city are wider, with the size decreasing for the streets that lie further to the east or west. (Hoepfner and Schwandner 1994:198).

The agora of Priene lies just south of the main avenue, which provides its northern border. It takes up the space of two full *insulae*, but otherwise complies completely with the grid of the city. The same is true for most of the other public buildings of the city, which can occupy one, two or fractions of the regular *insulae* size. The temples of Athena and Zeus are both included in the grid. The temple of Athena takes up the space of two full *insulae* as well as two half *insulae*, while the temple of Zeus takes the space of exactly one *insula*. The temple of Kybele, just inside the west gate, instead takes up an irregular spot created by the city wall, which would have been too small for even a partial *insula*. (Hoepfner and Schwandner 1994:198-208).

Structures on the site

On the site of ancient Priene 70 houses have been excavated. All of these are late Hellenistic, and they all follow the same general plan with only minor variations. All the houses face south, with the northern section of the rectangular plot used for the living quarters, the middle section as an open courtyard and the south end for storage rooms and workshops. The ground floors of the houses are made up of four rooms. An open hall leads into the main room, or *oikos*. Next to these are the men's room, the *andron*, and a small windowless room of unknown use. The main room also held the

stairs up to the upper floor. While there are no preserved upper storeys found, there is no reason to believe that the rooms did not share the same walls as the ground floor. The rooms here are believed to be a bedroom above the *oikos*, the women's room over the *andron* and a balcony matching the hall below. (Hoepfner and Schwandner 1994:208-210,218).

The courtyard varies in size a lot more than the living quarters, but it invariably takes up the entire width of the plot. The length depends on the amount of storerooms and sheds, as well as the size of the plot as I shall look at below. The courtyards are all paved and open to the sky, and some have drains or ditches for rainwater. The southern end of the plots are usually taken up by two storage rooms/workshops, both accessible from the courtyard. 34 houses lining the north side of the main avenue through the city also have a small shop in the southern end of the plot, accessible directly from the street, thus reducing the size of either the courtyard of the storage rooms of these houses. (Hoepfner and Schwandner 1994:218-219).

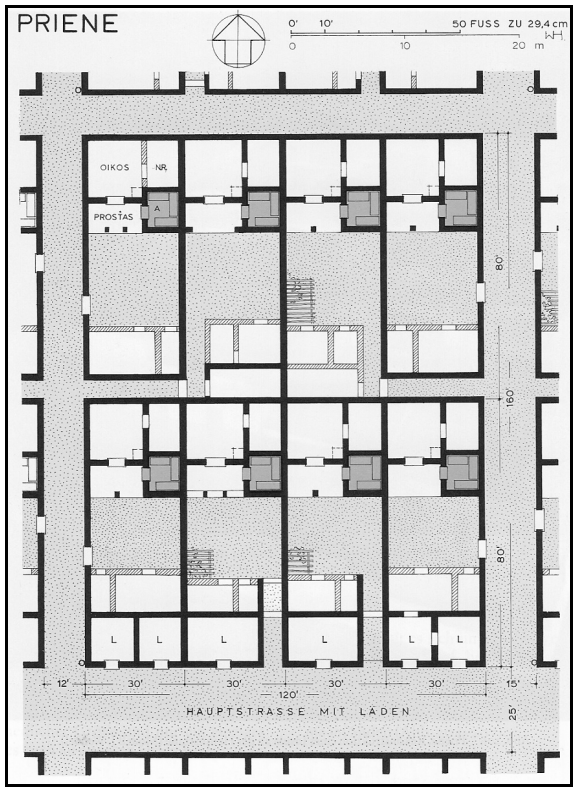

Illustration 4: House plans from Priene

The entrances to the houses are placed differently depending on the position of the house within its *insula*. The houses on either end (east and west) of the *insula* have their doors leading from the courtyard directly into the north-south street outside. The two houses in the centre of the northern row have their entrances through a passage running from the nearest north-south street, past the neighbouring plot between. This passage then continues past the storage rooms into the courtyard. The two middle houses in the south row are entered from the avenue to their south, through a passage past the storerooms and into the courtyard. (Hoepfner and Schwandner 1994:212-213).

Dating of the site

The founding of Priene has been dated to 353 or 352 BC. The city existed until some time in the 1st century BC, when the river silted up, removing the trade and causing the city to be abandoned. The houses on the site have been dated to the late Hellenistic period. (Hoepfner and Schwandner 1994:189).

Classification

The layout of the city of Priene is a typical example of a hippodamian town plan. The *insulae* have a width equal to three quarters of their length, and the agora and all public structures and sanctuaries are perfectly incorporated into the street grid.

The houses at Priene are typical *prostas* houses, and follow a very similar ground plan across the excavated parts of the site.

4.3 Delos

History of the city

The ancient town of Delos lies on a small island of the same name in the Cyclades. The island has few natural resources to make it valuable, but it was an important cult centre and was seen as the birthplace of Apollo. It was governed by Athens until some point in the 3rd century BC, when it became independent. This independence was lost again in the middle of the 2nd century, and the population was forced to leave their homes and move to Achaia. The island returned to the control of Athens, and the town was resettled by Athenian and Roman merchants. The new inhabitants rebuilt the town entirely, and it became a free port and enjoyed a 100 year period of political and commercial importance before being destroyed by pirates. (Hoepfner and Schwandner 1994:293).

Planning of the site

While the houses of Delos were rebuilt, the old street grid was preserved after this rebuilding. This might be partly because of the numerous sanctuaries and holy places in the city, which made changing to a more uniform plot size and orthogonal streets difficult. Another reason could be that the hippodamian town planning was losing its importance, and might therefore be ignored. Its main goal had been to emphasize the equality between the new settlers, which was no longer needed or wanted. This street grid has clearly not been laid out

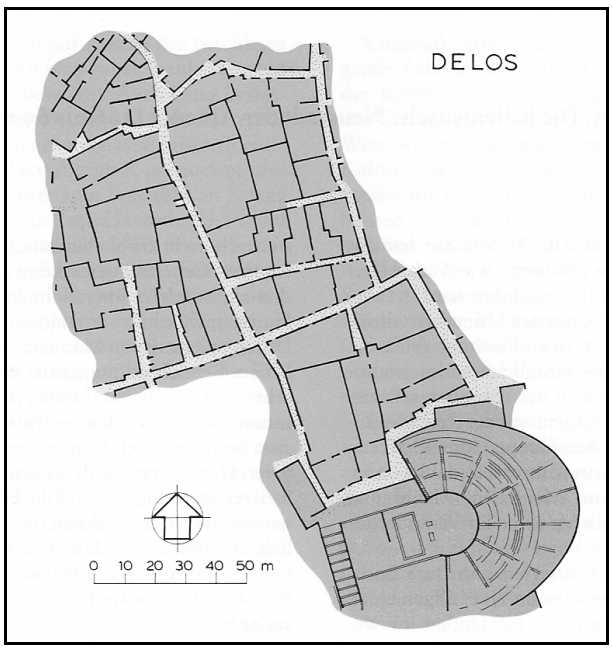

Illustration 5: City plan of Delos

according to an orthogonal plan, and it seems unlikely that any plan existed at all. The streets, while forming *insulae* that are at least roughly rectangular, are seldom straight for any length, and meet at irregular angles. While the terrain on the site is uneven, it is less so than at Priene, and can therefore hardly have been the sole reason for the lack of a grid plan.

Structures on the site

Excavations have brought to light large parts of the city, and thus confirmed the renewal of the city after 166 BC. The old houses were removed, and replaced by an uniform type of late-Hellenistic houses across the site. The *insulae* of Delos are dominated by two distinct types of plots, that go together with two different house types. Unlike other cities with two distinct house types, the houses of each type are similar to each others, but never identical. This implies a certain freedom of choice offered to the builders, though their common background caused them to make similar choices. Despite this freedom, some rules were probably enforced, as is known from for example Pergamon. As in Pergamon these rules were probably mostly concerned with elements that often caused problems, such as the minimum width of roads, treatment of party walls and water supply and drainage. Other rules are believed to have concerned the shape of buildings, height and number of storeys and placement of the cistern. The remaining details appear to have been left to the house owner to decide. (Tomlinson 1992: 120-121, Hoepfner and Schwandner 1994:293-295).

All the houses found at Delos are courtyard houses. One type are large *peristyle* houses occupying large more or less square plots of usually around 600 m². The houses have a full peristyle, with the rooms laid out around the central courtyard. Some smaller versions have only a two-sided Peristyle, but otherwise follow the same layout.

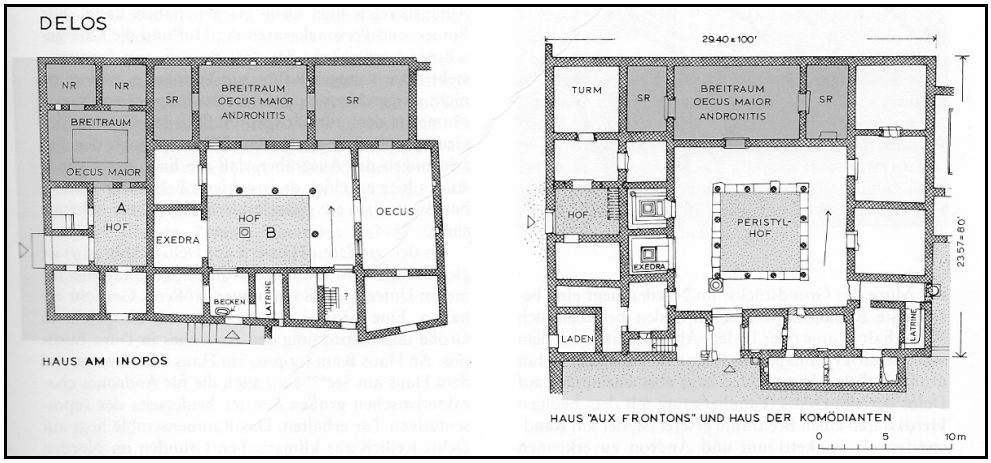

Illustration 6: House plans from Delos

The second are simple courtyard houses built on smaller rectangular plots with their longer direction facing roughly north to south. Here a side entrance opens into a central courtyard spanning the width of the plot with the living quarters to the north and workshops and shops to the south.

While most classical houses had two storeys only in the section containing the living quarters, most of the Delian houses were entirely in two stories. This created a larger living space, but with the limited light provided by the courtyard serving as a light well, nearly no light reached the lower rooms. The men's rooms are believed to have traditionally been located on the ground floor, while the women's rooms were on the upper floor. But with the problems with lighting, there started a new trend of having all living rooms on the upper floor with the ground floor used as visiting rooms. (Hoepfner and Schwandner 1994:295-297).

Dating of the site

The original foundation of the city of ancient Delos has not been firmly dated, but the renewal of the city, from which the excavated structures come, is dated to the year 166 BC. The destruction of the city by pirates has been dated to 69 BC. This gives a quite short and well defined period from which all structures must originate. (Hoepfner and Schwandner 1994:293).

Classification

The street layout at Delos clearly does not follow an orthogonal or grid plan. This leaves two possibilities; either the layout of the city was completely unplanned, or it was laid out according to a plan that did not follow a grid. The difference between these two is, of course, difficult to discern from the archaeological material, but given the history and nature of the city the former seems more likely.

The houses found at Delos are separated into two distinct groups, corresponding respectively with the *prostas* and *peristyle* types.

Chapter 5

Ancient Arcadia

5.1 Geography

The region of Ancient Arcadia lies in the mountainous highlands of the Peloponnese peninsula. Pausanias has dedicated book 8 of his Description of Greece to this region. While he is mostly concerned with the myths and stories of Arcadia, he also describes all its major *poleis*. This list of cities has commonly been used as a basis for determining the extent of the ancient region. Though the exact geographical limits seem to have fluctuated over time, the neighbouring regions seem to have been the following – To the north Arcadia borders to the region of Achaea, the border running along the ridges of Mount Erymanthos in the west to Mount Cyllene in the east. The eastern border of Arcadia is shared with the the regions of Corinthia and Argolis. To the south lies Messenia and Laconia, and to the west Elis. The ancient region is unusual in that it originally had no coastline, until Triphylia on the west-coast of the Peloponnese was absorbed by Arcadia in the 4th century BC. The population in the region is estimated to between 100,000 and 150,000 in the Classical period, but it is believed to have decreased in the Hellenistic period. (Nielsen 1999:47-51, Nielsen 2004:505-506, Nielsen 2010:153).

As I will look at more closely later, the social identity of the Arcadians as a group has existed for a long time. Longer, in fact, than the concept of Arcadia as a geographical region. Thus the region is named for the people inhabiting it, and not the other way around. The early identification as a people is probably part of the reason for the early recognition of the geographical region. The first signs of this gradual recognition can be seen as sites start being described as being located "in Arcadia". Arcadia is known to have been a geographical unit in the Classical period, as a separate region on the Peloponnese, which was again subdivided into smaller communities. The best available ancient description of Arcadia as a geographical region is to be found in chapter 44 of the geographical treatise of PS.-Skylax, which was written in the first half of the fourth century BC. It describes the region as follows:

> *"ARKADIA. After Elis is the* ethnos *Arkadia. From the interior Arkadia reaches down to the sea at Lepreon. In the interior their large* poleis *are the following: Tegea, Mantineia, Heraia, Orchomenos, and Stymphalos. There are other poleis as well. The coastal voyage along the territory of Lepreon measures a hundred stadia"* (Cited in Nielsen 1999:47)

Illustration 7: Map of ancient Arcadia

The region described here is clearly a purely geographical concept, located on the Peloponnese next to Elis, and with a stretch of coastline along the Ionian Sea. It is subdivided into a number of smaller communities, five of which are mentioned by name. Thus, the geographical concept of Arcadia is well documented in the Classical period.

It can, however, also be traced back into the Archaic period. A Delphic oracle in the middle of the sixth century is quoted by Herodotos (1.67) *"There is a place Tegea in the smooth plain of Arcadia".* For this statement to make sense, Arcadia must already at that time have been a region, with Tegea being a community or subdivision within it. So the region seems to have existed even in the middle of the 6th century.

The region is also mentioned in the *Catalogue of Ships* (Il. 2.603), with a description which resembles, but is not identical to, the one by PS.-Skylax. They both describe Arcadia as a geographical region divided into several smaller communities, but the *extent* of the region differs. Both descriptions include the easternmost areas, with Tegea, Mantineia, Orcomenos and Stymphalos being mentioned in both. However, the *Catalogue of Ships* describes the region as being without a coastline. From this it can be seen that the region existed as a geographical concept, but that the borders fluctuated through the Archaic and Classical periods, changing the extent of the region. (Nielsen 1999: 47-49)

5.2 Topography and resources

The land of Arcadia is harsh and inhospitable compared to the rest of Greece, and due to the inaccessibility of the terrain the region has often been seen as a backwards and somewhat primitive area. Located in the central region of the Peloponnese the land consists mainly of mountains which reach heights of over 2,300 meters in the northern parts. Even the inhabitable valleys and basins between the mountains are between 400 and 950 meters above sea level. This means that the region was susceptible to quite severe weather compared to lower laying regions. The nature of the terrain means that only a relatively small part of the land in the region is arable, and even here the temperatures presents a limit to which crops are possible to grow. The arable land is mostly located in the valleys between the mountains as well as on man-made terraces stretching up the mountainsides. The remainder of the land is however very well suited for animal husbandry which was an important livelihood. The region must have been dependent upon trade with the surrounding regions. Olives, oil, metal, fish and salt must have been imported, whereas the products of agriculture and animal husbandry may have been exported. From the 5th century Arcadia also became well known for exporting mercenaries of high quality.

Since the 1980s there has been found signs of an extensive road network in Arcadia, linking

most or possibly all of the known settlements. The date of this network is uncertain, but it is believed to have been present in the later part of the Archaic period. This work, done by Yanis A. Pikoulas, can somewhat change Arcadia's reputation as a backwards and inaccessible region, as these roads must have been well travelled to have been preserved for so long. (Roy 1999:320-321, Pikoulas 2005, Nielsen 2010:153-154).

5.3 Social identity

The Arcadians were seen as a population group quite early, which is likely connected with the early emergence of Arcadia as a separate region. It is important to note that the term 'Arcadian' is not to be understood as 'person from Arcadia'. Rather, the name 'Arcadia' means 'the land of the Arcadians'. Thus the land got its name from the people living on it, and not the other way around. The population group existed as a separate unit before the same was true for the geographical region from which they came, and the concept of the region of Arcadia gradually emerged. This can be seen as sites start being described as being located 'in Arcadia'. Despite this later recognition of the region of Arcadia, the Arcadians had strong ties to their homeland. They believed that their ancestors had 'sprung from its soil' and that they had resided there since the beginnings of time. Pausanias, in the introduction to book 8 of his description of Greece, gives a detailed account of the common heritage of the Arcadians. He explains that the first inhabitant of Arcadia was King Pelagus, who helped the Arcadians settle in the region by teaching them how to build houses, make clothes and light fires. Pausanias also gives the names and kinship of the men who founded and gave their names to many of the Arcadian *poleis*, including Stymphalos, Mantineia, Asea and Tegea. So the Arcadians believed that they shared a common ancestry, going back into the realm of myths and legends. This, along with their attachment to their homeland may have helped in reinforcing their ethnic identity. (Pausanias 8.1, Nielsen 1999:43-47)

Common sanctuaries for the region would also have helped to create a common identity for its inhabitants. One such sanctuary is known, dedicated to Zeus Lykaios and located on the summit of mount Lykaion in western Arcadia. This cult can be traced back as far as to the 7th century BC, and by the 5th century it is believed to have been a meeting point for the entire Arcadian region. From here were also arranged the Lykaian Games, held every four years. These games are mentioned by Pausanias, and rated amongst the most important of such events in Greece. (Pausanias 8.2.1, Nielsen 1996:59-62)

The language of the Arcadians might have been another unifying factor. The group shared a single dialect, which was distinct from those spoken in the surrounding regions. This dialect was more similar to that spoken on Cyprus, which was seen as an older way of speaking compared to

the Doric dialects in the area. This might be part of what gave the Arcadians their reputation for being slightly old fashioned. It may also have helped reinforce their identity as a group. (Nielsen 1996:54-58).

5.4 The history of Arcadia

Here I will attempt to give an overview of the history of the region of Arcadia, focusing on events involving one or more its communities. The history of Arcadia is dominated by the rivalries between neighbouring *poleis* which are common also in other parts of ancient Greece. These were, however, perhaps even more numerous in Arcadia, as the very limited amount of arable land and short distance between some of the *poleis* caused additional tension especially between the larger city states. In addition, the city-state of Sparta has had a large impact on the history of Arcadia, and that of the Peloponnese peninsula in general. (Nielsen 2010:153).

As mentioned above the Arcadians believed that they as a people shared a common ancestry, going all the way back into myths and legends. This was seen by them as the earliest chapter of their shared "history". The earliest properly recorded and reliable history of the Arcadians stems from the late sixth century BC, and their relations with Sparta.

Sparta was a powerful military force in ancient Greece, and has had a large influence on the history of Arcadia, and indeed the entire Peloponnese peninsula. There are known conflicts between Sparta and Arcadia dating all the way from the early 6th century and up to the Hellenistic age. The original plan of the Spartan rulers was to conquer all of Arcadia. A first effort towards this was meant to destroy Tegea in the first half of the 6th century. Tegea withstood the attack, and the Spartans were instead forced to settle for entering into an alliance with the Tegeans. This was the start of what was to become the Peloponnesian League. By the second half of the 6th century it seems likely that all Arcadian communities were included in the League, and many of them fought alongside the Spartans in the Persian Wars. The membership in the league meant that the Arcadians were to support Sparta in its wars, which must have severely reduced the possibilities of any separate foreign politics.

The relationship between the Arcadian communities and Sparta was full of conflicts, and these seem to be closely connected with another conflict, that between two of the larger *poleis* of Arcadia, Tegea and Mantineia. These were both cities of considerable size, and being located only 16 km apart could hardly lead to anything but trouble. This protracted conflict influenced the political situation on the entire Peloponnese peninsula. The typical pattern of the conflict can be summed up as that when one of the cities were on friendly terms with the Spartans, the other would seek support from Argos. (Nielsen 1996:32).

During the Persian war Tegea seems to have been on good terms with Sparta. Tegean soldiers fought at both Thermopylai and Plataiai, and at the latter they were honoured by being placed right next to the Spartan troops in the phalanx. At this time it looks like there might be some form of conflict between Sparta and Mantineia. Troops from Mantineia fought at Thermopylai, but they were somehow delayed and failed to reach the battle at Plataiai in time. It is possible that this was done on purpose, which would explain why Mantineia is not mentioned on the victory monument, while Tegea received an honourable place on it.

After the Persian wars Tegea formed an alliance with Argos, with whom they fought and lost against the Spartans at some point between 479 and 465. During the same period there was a battle at Diapaia, where Sparta defeated the combined army of all the Arcadian cities except Mantineia. There is reason to believe that the Mantineians were not merely passive and avoided participation, but that they were on good terms with Sparta at this time. Thus the positions of the two cities have reversed. (Nielsen 1996:33-34, Nielsen 2002:73).

In the years from 421 to 418 Sparta repeatedly involved itself in internal Arcadian affairs, amongst other things stopping a civil war when Parrhasia attempted to extract itself from an alliance with Mantineia.

While the Spartan forces were occupied with the Peloponnesean war, Mantineia took the opportunity to start building its own little empire. In an attempt to keep its conquests after the Peloponnesean war ended Mantineia entered into an alliance with Argos, Elis and Athens. However, even this mighty alliance was defeated by the Spartans in 418, at the battle of Mantineia. After this Mantineia was forced to give up their empire and rejoin the Peloponnesian League. In order to ensure the loyalty of Mantineia as an ally, Sparta sent an expedition to demand that the Mantineians demolish their city walls. This was refused, and as a result the city was besieged. This led to Mantineia being forced to accept a far harsher punishment. After this, Mantineia was a far more loyal ally, at least seemingly.

In 371 the Spartans suffered a great defeat at the hands of the Boetians at the battle of Leuktra. In 370 BC, in the power vacuum left by Spartas defeat, the Arcadians for the first time in their history united without outside influence, forming the Arcadian League. This league was founded on the basis of the sense of ethnic coherence amongst the Arcadians, and consisted exclusively of cities that were thought of as Arcadian. The 'mythical' parts of the shared history of the Arcadians probably played a greater part in the creation of their regional identity than what the recorded history did. However, the constant military threat posed by Sparta from the 6th to the 3rd centuries is likely to have helped this process along. The initiative for the forming of this league originated from the the city Mantineia, and because of this a revolution was needed in Tegea before

they would join in a league started by their traditional enemy. Also Orchomenos and Heraia were reluctant to join, but these seem to have been forced into becoming parts of the league. Despite these initial difficulties, the League soon included most of or the entire Arcadian region. (Nielsen 1996:36-42, Nielsen 2002:73, Nielsen 2010:154)

The Arcadian League was meant as a defence against further Spartan aggression. The Spartans, of course, realized this and attacked immediately, but the Arcadian forces were able to withstand this. Somewhere between its founding and 367 BC the League created the city Megalopolis, through a synoecism of a large number of smaller towns. The city was founded as a step in their defences against the Spartans, both to be used as a common administrative centre for the league, and as link in their defence by securing one of the approaches from Sparta into Arcadia. (Nielsen 1996:37, Nielsen 1999:49-71, Nielsen 2010:154).

It was only during the time of the Arcadian League in the fourth century that Arcadia was unified and powerful enough to increase its territory, and this is when Triphylia was permanently incorporated into Arcadia finally giving the region a stretch of coastline. (Nielsen 1996:36-42, Nielsen 2010:154)

The success of the Arcadian League was, however, short-lived. In 362, after only nine years, the Arcadian league was split up. Tegea, Megalopolis, Pallantion and Asea left the league, possibly taking others with them. What little remained after this, centred around Mantineia, remained until 324, when it was dissolved by order from Alexander the Great. (Nielsen 2007:154)

Little is heard of Arcadia for a while after this, until 251, when most of the Arcadian *poleis* joined the Achaean League under Aratus, son of Cleinias. This League survived until it was defeated by the Roman army in 146 BC in the Battle of Corinth, and Greece fell under Roman rule. (Nielsen 2010:153).

Chapter 6

Sites in Ancient Arcadia

In this chapter I will be looking at the remains of cities in the region of Ancient Arcadia. I have two separate reasons for doing this. First of all there has to my knowledge not been made an up to date summary of the known sites of ancient cities in Arcadia, a region where there has been made great archaeological progress in recent years. Secondly I will be using the information I gather here to make a comparison between the cities of ancient Arcadia and those in other parts of Greece.

I will be focusing particularly on three Arcadian cities, which have all had the residential areas explored by archaeologists to some extent. These are, in no particular order: Kyparissia, Stymphalos and Lavda. Kyparissia is located in western Arcadia, in a small valley. Large parts of the street network here has been excavated, revealing a number of houses. Stymphalos lies in the northeast of Arcadia, bordered between the lake Stymphalia to the south and steep mountains to the north. Only a few buildings have been excavated here, but the layout and structures of large parts of the city has been discovered via electrical resistance surveys. Lavda is located on the top of a steep hill in northwest Arcadia. Also here are only a few fully excavated structures, but parts of many more are known, making the layout of the streets discernible. There are also four cities I will be mentioning, though the lack of excavations in the living quarters of these cities makes them less important for my thesis. These are Tegea, Megalopolis, Asea and Mantineia. Tegea is located centrally in eastern Arcadia, occupying the centre of a large valley. Its temple dedicated to Athena Alea is well known and has seen much archaeological attention. The living quarters of the city remain more or less unexplored, though this is about to change with the current work by the Norwegian Institute. Megalopolis was founded as the Arcadians defence against their Spartan neighbours, both as a common administrative centre for the alliance and as a physical link of the defences. It lies in a wide valley in western Arcadia. Archaeological work here has focused on the theatre and other public structures, leaving the rest of the city mostly unknown. Asea occupies the flat top of a steep hill in southern Arcadia. Only a few separate houses have been excavated here, making it difficult to establish the layout of the site. Mantineia is located in the northern end of the same valley as Tegea. Also here the excavation work has been centred on the public structures, though the layout of some of the streets is known as well as the course of the city wall. As with the sites in other parts of Greece, I will mainly be looking at the layout and construction of these cities. I will also sum up their history and the archaeological work performed, as well as their topographical surroundings and the dates of their construction.

6.1 Kyparissia

History of the investigations

The modern village of Kyparissia is located on the eastern slopes of Mount Lykaion, about 15 kilometres northwest of Megalopolis. The ancient remains, which are located on the plain to the northeast of the modern village, are believed to be those of the ancient city of Trapezous. The first excavations on the site were performed by A.G. Bather and V.W Yorke at the end of the 19th century. This rather brief work was done in the southeast portion of the city. The finds from this investigation yielded rather uncertain dates from the sixth and fifth centuries BC. Further excavations were conducted by Stefanos Klon early in the 20th century, uncovering the foundations of a number of structures located just east of the earlier excavations. According to the excavator, these structures clearly identified the site as that of ancient Trapezous. After this, no further work was done in the area until recently. (Karapanagiotou 2005:331-332)

The latest, and more extensive, investigations at the site took place in the years from 1998 to 2001. These were made necessary by the works of the Greek Electrical Company, whose mining activity threatened the ancient site. These excavations have confirmed the location of the city wall for much of its length, as well as much of the layout of streets and buildings in the northwestern part of the city. More detailed excavations have also given further information of the layout of the individual houses. (Karapanagiotou 2005:332-335)

Topography

The site of ancient Kyparissia is located in a small valley in western Arcadia. It occupies an area of relatively flat terrain, with two small hills to the southwest. The westernmost of these hills holds the modern village of Kyparissia, while the other holds the funerary chapel of Hagia Kyriaki. This hill rises up to 400 meters above sea level, though it is only 50 meters higher than the surrounding plains. The undulating terrain of the valley rises quickly towards the mountains to the west and northwest. North and east the land rises more gradually towards the more distant mountains. The land immediately to the north and east has been disturbed later, as mentioned below. To the southeast the terrain is relatively flat all the way down to Megalopolis. A small dirt road comes from the north-northeast, cutting diagonally through the northern part of the site. The northern end of the site was bordered by the stream Sikalias, while the Alpheios river lies a little further away to the east. (Karapanagiotou 2005:331, 335).

Today the area of the site is covered in waist high grasses and other vegetation. The areas

surrounding at least some of the excavated remains are kept cropped, making them easily accessible and visible. To the north and east of the site a large surface mine has drastically changed the landscape, making it much harder to envisage the immediate surroundings of the city as they might have looked at the time of its habitation.

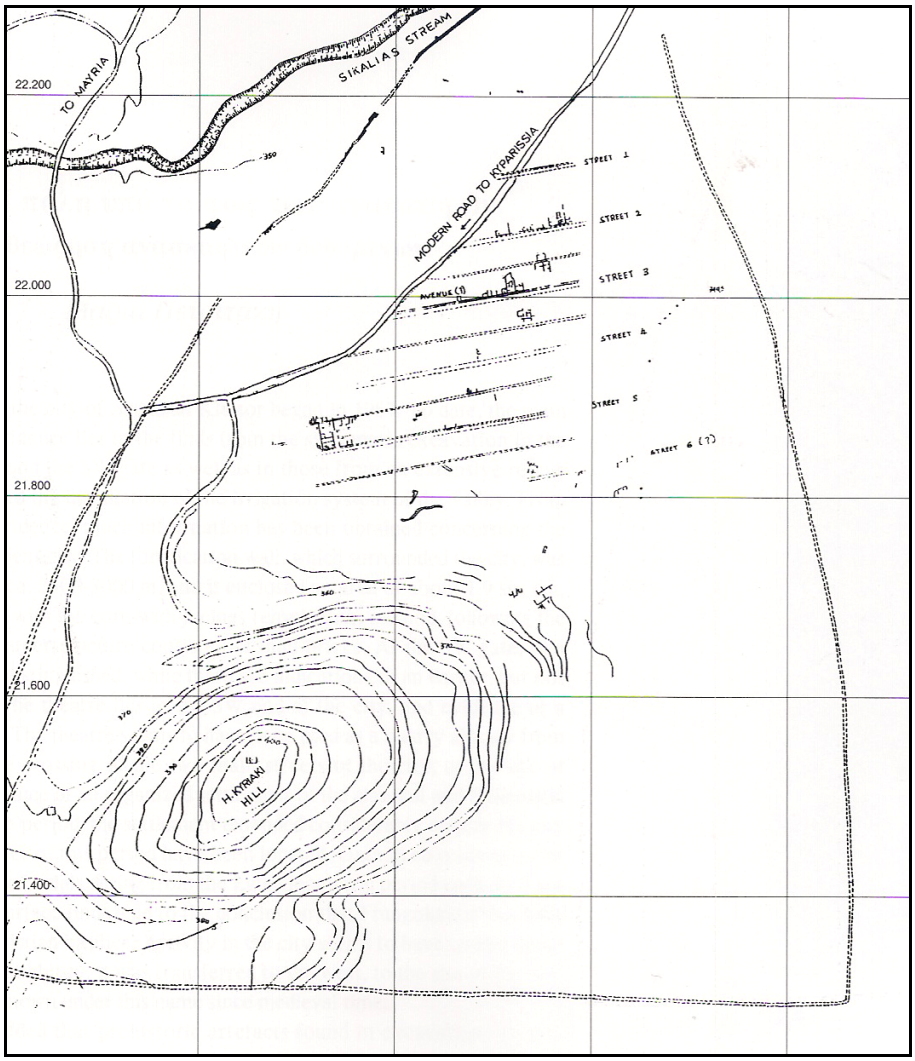

Illustration 8: Plan of Kyparissia

Planning of the site

The city wall surrounding the ancient city follows relatively regular paths, probably due to the relatively flat and even terrain. It includes the parts of the plain where most of the excavations have been done, as well as the Hagia Kyriaki hill which might have served as an acropolis. The south wall runs very nearly straight east-west, and according to the map of the city is just over 900 meters long. At each end the wall turns north, with the lines gradually closing as they near the north end of the settlement. The very northern end of the wall is lost, making it impossible to tell whether the complete shape was triangular or trapezoidal. The preserved length of the circuit wall from north to

south is about one kilometre, with the missing sections possibly making it somewhat longer. (Karapanagiotou 2005:336-337)

The most recent excavations have confirmed that the settlement followed an orthogonal plan, consisting of rectangular blocks separated by streets. Six of these streets have been identified, each of them 4.6 meters wide and running parallel to each other from west-southwest to east-northeast. These streets, consisting of packed earth and lined by pavements and drainage channels, thus outline rectangular blocks 54 meters wide. These blocks were occupied by a double row of houses, separated by a one and a half meter wide drainage alley. The houses face towards the south, and are accessible via their respective streets. The exact length of the blocks or *insulae* is unfortunately not known, as none of the crossing avenues have been clearly identified for any length. These avenues will most likely have been perpendicular to the streets, carrying the majority of the traffic and connecting with the main gates in the city wall. From the traces of one such avenue in the centre of the settlement, they have been found to have been 8 meters wide.

The settlement appears to have been quite densely populated, as the placement of a house only 20 meters from the southern wall makes it likely that the same grid plan was used on the entire site. Public buildings were most likely located on the slopes of the Hagia Kyriaki hill, where earlier excavations have uncovered structures that could be of this type. (Karapanagiotou 2005:333-338).

Structures on the site

Houses have been found in many locations on the site, and a group of rooms in the southwestern part of the settlement were particularly thoroughly investigated. The remains of the walls, which are preserved up to a height of about 40 to 60 cm, have socles made of unworked stones packed with earth. They are between 40 and 50 cm thick, with little or no distinction in size between interior and exterior walls. These socles carried walls made of mudbrick and wood, covered by tiled roofs. (Karapanagiotou 2005:334).

Illustration 9: House at Kyparissia

In the more detailed work on the house mentioned above it was possible to identify the function of several rooms and get an idea of the layout of the house. A corridor in the west side of the house leads from the street into the central courtyard, and separated the house into an eastern

and a western section. The eastern section, which is the main part of the house, measures approximately 26 by 15 meters and is itself separated by the central courtyard into a northern and a southern area. The part to the north consists of the rooms shared by the family inhabiting the house, while the southern part contains a hearth and was probably used for cooking and preparation of food. The section to the west of the corridor appears to have been used for storage, implied by the lack of doors in the outer walls, as well as the finds of numerous storage vessels. (Karapanagiotou 2005:334-335)

Dating of the site

Dates for the use of the site have been suggested based on a combination of finds from the excavations, along with what is known of the history of the region. This includes pottery, coins and other metal objects from the site, the technique used in the construction of the fortifications and the way the layout of the city was planned. The chronology derived from this starts with the earliest use of the site, believed to be as early as the last part of the archaic period. The planned city was at its peak from the second half of the 5th century, continuing towards the late part of the 4th century, before dwindling or disappearing completely at the very end of the 4th century BC. The site was later occupied by a small settlement during the Roman imperial period. (Karapanagiotou 2005:340.341).

Classification

The street plan of ancient Kyparissia has not been fully revealed, as only the streets have been clearly identified. The intersecting avenues have not been possible to find in enough places to determine the exact length of the *insulae.* From the lack of avenues in the excavated area it seems logical to assume that the shape of the *insulae* was quite long compared to their width. This again looks like a quite standard orthogonal street plan following the *per strigas* system.

With only a single house that has been completely excavated, I will have to base my comparison on this limited material. It is of course possible that other houses on the site followed a different layout, but this will not be possible to find out without further excavations. The house lies on a plot of more or less rectangular shape. The house is entered by a corridor leading from the street to the south into the central courtyard. This open courtyard is surrounded on at least three sides by rooms which are separated into three groups. To the west of the corridor lies a group of storage rooms. The northern part of the house is used for the general living quarter, while to the south lies the kitchen. The shape of the plot used for this house would be most appropriate for a

house of the *pastas* type. The ground plan, and in particular the believed function of the rooms does deviate somewhat from the typical *pastas* house. The courtyard is located by one side rather than at the south end, and the storage rooms run along one side rather than being concentrated towards the south as is normal. However, these differences are no more than what can be explained by individual variation within the types.

6.2 Stymphalos

History of the investigations

The ancient city of Stymphalos is known from the story of Herakles. During his fifth labour, Herakles defeated the feared Stymphalian Birds that had been terrorizing the population of the area. The site is also mentioned by both Strabo and Pausanias, but neither in any great detail (Strabo 8.8.2; Pausanias 8.22). Later the site has been noted by several passing travellers from the start of the nineteenth century and later. (Williams 1983:194).

The earliest archaeological activity on the site was a few weeks worth of work performed by Anastasios Orlandos in the years from 1924 to 1931. No further work was done until the summer of 1982, when the site was chosen as an inaugural project for the Canadian Archaeological Institute at Athens. In the years from 1982 until 1984 extensive surveys of the site were conducted. These noted any visible remains on the site, as well as structures and roads indicated by crop marks in the modern fields. The work also included electrical resistance surveys of large areas on the site. (Williams 1983:195; Williams 1984:174; Williams 1985:215-216, Williams 1998:263).

In 1994 the necessary permissions were granted, and excavations could finally begin within the city. Trenches were placed in several different areas on the site. These concentrated around an area of houses and streets in the southwestern part of the city, a sanctuary on a terrace of the acropolis and a large artillery tower in the south wall. Work in these areas continued for four seasons, ending in 1997. (Williams 1995:1-2; Williams 1996:75; Williams 1997:23-24 ; Williams 1998).

Work resumed in the area in 1999, this time continuing until 2002 with the entire last season devoted to finishing reports and preservation work. During this time work continued in the areas of excavation from the earlier seasons, as well as in several new locations. These included a second artillery tower, this one on the west wall, two of the city gates and several new locations on the city acropolis. (Williams 2002).

Topography

The city of Stymphalos, in northeastern Arcadia, lies on the northwestern shore of the lake Stymphalia, in a small flat valley surrounded by mountains. The bottom of the valley lies about 600 meters above sea level. The length of the valley runs west-southwest to east-northeast, with the city located about the middle of the length. To the north of the city and south of the lake the land rises suddenly and sharply into mountains from the flat bottom of the valley. The valley continues to the west past the hill which the acropolis ridge is connected to, before rising into steep mountains. The valley also continues further towards the east-northeast, before narrowing and disappearing. The lake Stymphalia covers a large central part of the valley, and it frequently floods the south- and easternmost sections of the city, located on its northwest shore. This flooding creates difficult conditions for excavation in the afflicted areas, but on the other hand it also makes these areas less suitable for agriculture which already has or is in the process of destroying the remains in other parts of the site. The acropolis is located on a rise of land entering from the southwest corner of the city and stretching east-northeast. The ridge grows gradually narrower and lower before disappearing after about two thirds of the width of the site. From the acropolis the city stretches north almost to the foot of the mountains. The acropolis hill gives a good view of the eastern part of the valley as well as of the city itself and the lake area. The view of most of the western end of the valley is blocked by the hill to which the acropolis ridge is connected. The main parts of the city are located to the north and east of the acropolis ridge. From the southwest corner the southern city wall follows the acropolis rise for part of its course eastward, before turning sharply south to include some land to the south of the acropolis. It then heads east again in a fairly straight line before turning north. It then follows a semi-circular path curving west, then south, encircling an area approximately 850 meters from east to west and 700 meters north to south. (Williams 1983:194)

Today a narrow dirt track leads from the road out onto the acropolis ridge where the remains of a fortification tower are still visible. The area north of this is covered in fields and used to keep beehives. The area south of the acropolis was at the time of my visit more or less submerged in the water of the lake, but this obviously changes with the seasons. On the north side of the acropolis only the course of the city wall is vaguely visible by the crop marks in the fields. The structures on the acropolis hill are partially visible, though much is covered in vegetation. The structures to the south of the acropolis are visible where not covered in reeds, but the flooding from the lake made them inaccessible for closer examination.

Planning of the site

Visible remains of walls in regular alignments on the site of ancient Stymphalos was one of the reasons excavations were started there back in 1982, and the fact that the city had been laid out according to an orthogonal plan was confirmed almost immediately when the work started. (Williams 1983:195-196).

The layout of the city is formed by a number of streets running parallel in a north-northeast to south-southwest direction. The streets themselves are approximately 6 meters wide, including the 1 meter wide drainage ditches which ran along either one or both sides of the streets. These streets form between them a series of long and narrow blocks, each of which measures 30 meters wide. This makes the basic module of the city, an *insula* and the adjoining street, equal to 110 Doric feet which appears to have been used across the entire site.

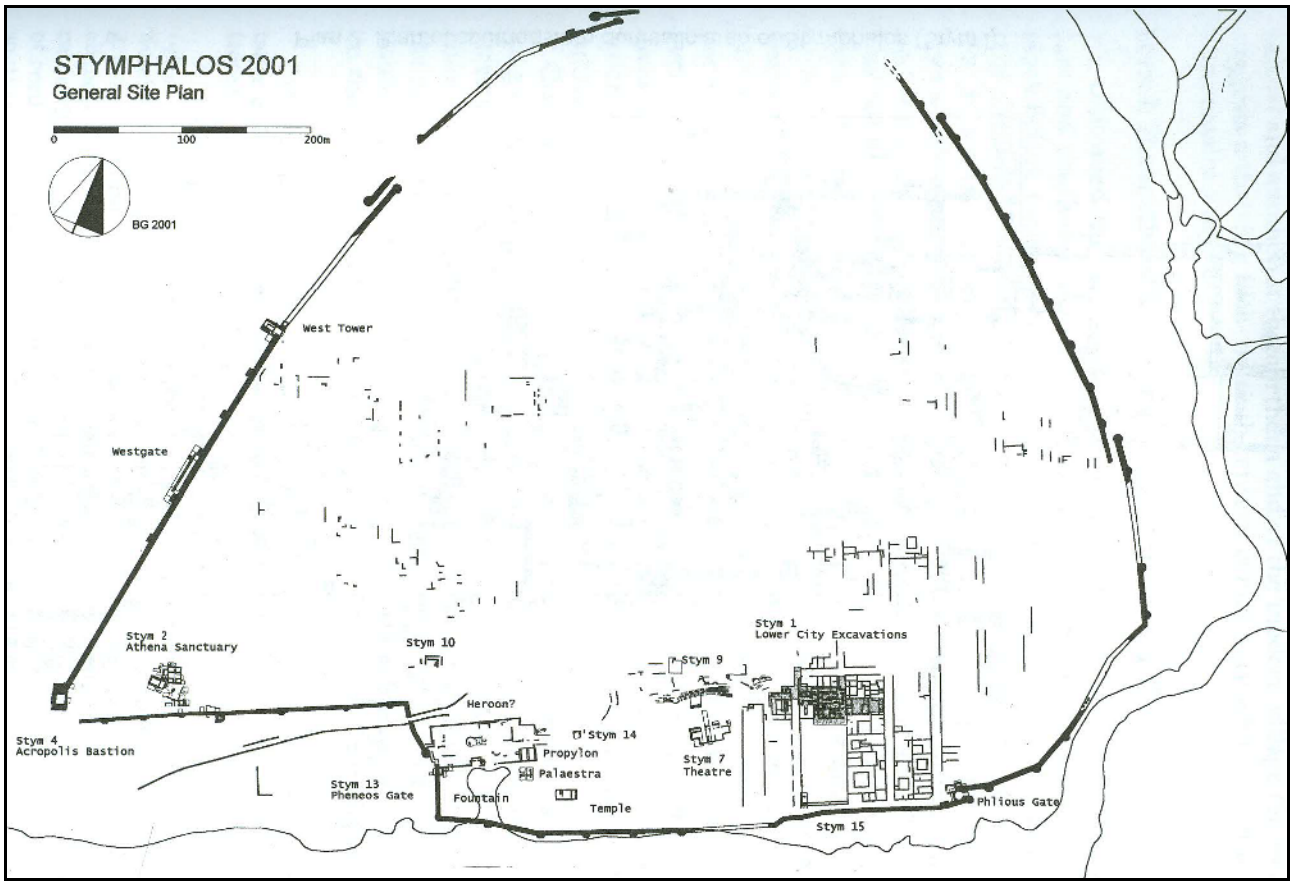

Illustration 10: City plan of Stymphalos

The avenues running the entire length of the city are not placed at quite as regular intervals as the crossing streets, meaning that the length of these *insulae* is much less uniform. However, it is for the most part somewhere above 100 meters, where the course of the city wall does not interfere. These avenues were the main thoroughfares of the city and will probably have carried the majority

of the traffic. They were also probably all connected to the gates. The third and fourth avenues from the south have most likely run in straight lines between the two pairs of matching gates on either side of the city. (Williams 2002:139-140).

Above the third avenue from the south, the grid of crossing streets shifts 15 meters to the east, creating some irregularity in the layout. This might have been done in order to increase the defensive capabilities of the city once the city walls were breached. An overly regular plan would make fighting inside the city easier for the foreign soldiers, and negate the advantage of the defenders fighting on well-known territory. (Williams 2002:140).

Structures on the site

Several houses from different periods have been identified at Stymphalos, all of them located in the southeastern sector of the city, just north of the south wall and closest to the lake. This area is more prone to flooding, which makes the working conditions difficult, but for the same reason it is also less disturbed by agricultural activity.

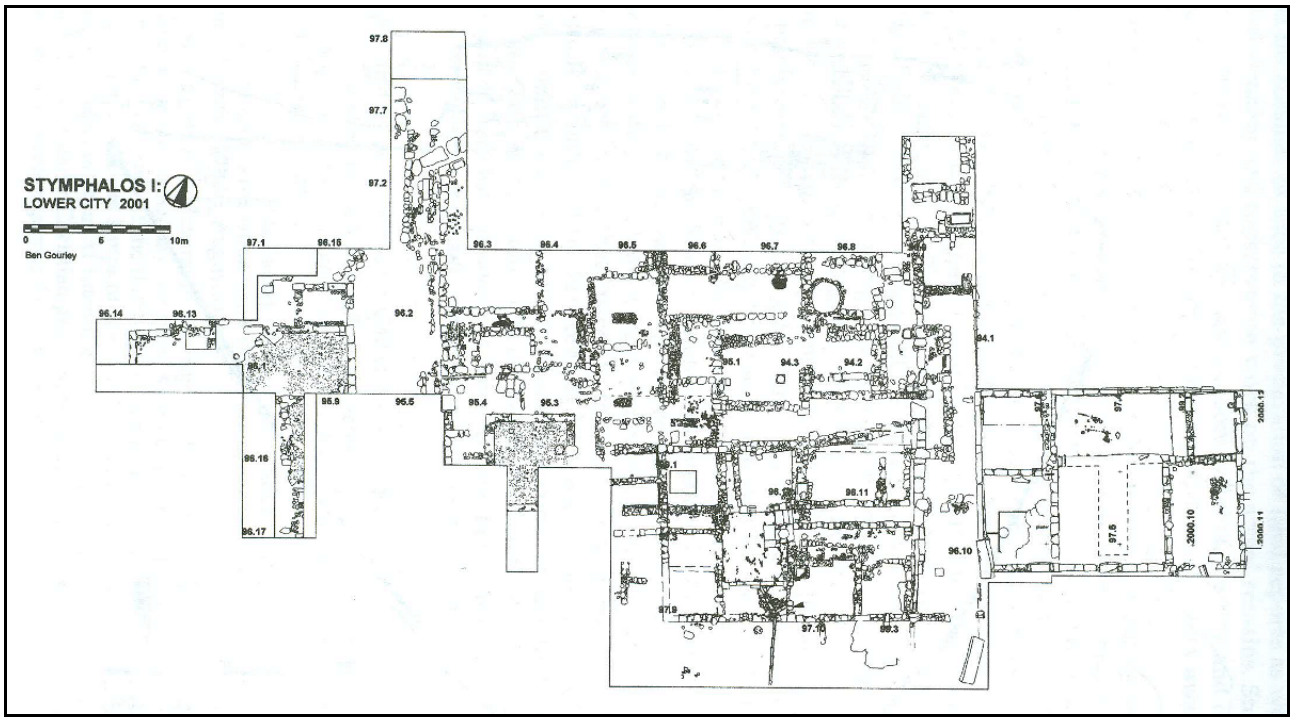

Illustration 11: House plans at Stymphalos

Work in this part of the city started during the 1994 season, with three 5x5 meter trenches laid out to investigate parts of a house and the adjoining street, found during the resistivity survey. In the following seasons further trenches were continually added to this, until at the conclusion of the work in 2002 more than 50 such trenches had been dug.(Williams 1995:2-7; Williams 1996:89,

Williams 2002:138).

Late Classical/Hellenistic Houses

Parts of at least two houses were uncovered early during the work in this area, located back to back in the northern end of an *insula*. The construction of both houses is dated to the middle of the fourth century BC. From the ground plans it was not possible to identify a clear type of house, and the two buildings that were studied did not follow the same plan. This was further confused by numerous destructions, rebuildings and additions. In some places the back wall is shared between houses, in others they are separate. The eastern house has been gradually expanded eastward into the street, until it completely blocked it. This probably occurred in the Hellenistic period.

The foundations that were discovered vary in thickness from 40 to 80 cm and supported mud brick superstructures covered in painted plaster. The dimensions of the foundations indicate that the structures were probably at least two storeys high. The difference in the quality if the stonework in the foundations also hint at varying wealth of the inhabitants. Where the slope of the site made this necessary, the houses were stepped downwards by about 20 to 30 cm per house. (Williams 1996:92-93; Williams 1997:38; Williams 2002:139-141; 145)

Roman Villa / Courtyard House

The Roman villa, which is referred to as the Courtyard house in the earlier publications, is located just south of the two houses mentioned above, perhaps partially over them. The first signs of the presence of this structure was noted in 1996. This building has a much clearer ground plan, centred around an open tiled courtyard in which the well is located. The entrance to the building was probably via a corridor leading in from the street to the east. Eleven rooms have been identified, making this quite a substantial structure.

The architectural style indicates a date in the Roman period, but no more specific than that. Artefacts found in the house indicate a date in the late 1st century AD, and the use was probably contemporary with the reuse of the Ashlar building I will look at next. (Williams 1998:270:274; Williams 2002:141-145)

The Ashlar building

The Ashlar building, so called because the north, east and west foundations consist of finely worked ashlar masonry, is located just across the street to the east of the Roman Villa. It can be seen furthest to the right on illustration 11. The walls of the building are made from large squared, smoothed stones, not ashlar masonry, covered in high quality plaster. It is uncertain whether this building was used in some public function or as a private home. It has been dated to the 4th century BC. The plot of the house is rectangular, with the shorter sides facing east and west. The entrance is placed in the centre of the south wall, and leads directly into a large courtyard. To the east and west of the courtyard are two rooms of similar size, the western one believed to have been used as an *andron*. The northern section of the house is separated into one large and two smaller rooms, all of unknown use. The later reuse of the building (see below) has somewhat confused the material in this house. This has made it difficult to identify the function of the various rooms during the original period of use. (Williams 1998:274-277, Williams 2002:145-151)

The building was reused in the early Roman period, but it is uncertain whether it was simply as a storage area for the Roman villa across the street or if it was used as a house in its own right. Finds of seafood, which must have been imported into Arcadia, indicate that whoever used the building must have been quite wealthy. It seems to have been abandoned around the middle of the first century AD, possibly as the result of an earthquake. (Williams 1998:274-277; Williams 2002:145-151)

Dating of the site

According to the suggested chronology for the site, use started already in the fifth century BC, but the present city is believed to have been founded between 375 and 350 BC. The city of Stymphalos flourished in the time from the fourth century BC to the second century BC. In the middle of the second century BC structures start being extended into the roads, indicating a breakdown in central authority. Following this the city appears to have been only sparsely populated for a time. More extensive use of the city seems to have resumed at the start of the first century AD, when the Roman villa was used along with the reuse of the Ashlar Building. (Williams 1998:279-280, Williams 2002:136).

Classification

The street plan found at Stymphalos consists of long avenues running along the length of the site, intersected by more frequent smaller streets at right angles. This gives the site a typical orthogonal

plan with long rectangular *insulae*, with the length of the *insulae* running north to south. This gives a layout in keeping with the *per strigas* system.

The only structure at Stymphalos with which a comparison is relevant is the so called Ashlar building dated to the 4th century BC. It should be noted that it is not certain that this building did serve as a private home during the 4th century. I will look at it here under the assumption that it did, for the sake of this comparison. Should further investigations indicate that this was indeed a public building then this section will of course be rendered irrelevant. This building is constructed from large shaped stones, and follows a simple layout consisting of two sections. The larger southern section is taken up by a large central courtyard flanked to either side by rooms of similar size. The northern section is separated into three rooms more or less corresponding to the rooms of the south section. This layout is quite similar to the typical *pastas* house, though simplified and with fewer rooms. The building material is different, which could possibly have influenced the simpler plan, but apart from that the similarities in orientation and floor plan are striking.

6.3 Lavda

History of the investigations

Theisoa is a small modern village located in the western part of the ancient region of Arcadia. It used to be named Lavda, but in 1915 it was renamed based on a presumed identification with the ancient city Thisoa which is mentioned by Pausanias (8.27.4, 8.38.9). However, the hill where the ancient remains are located has kept the name Lavda, which is also the name used when referring to the remains of the ancient settlement. This is done in order to avoid possible confusion between the modern village Theisoa and the ancient city of Thisoa, which the remains are believed to stem from. (Feije 1993:183, Feije 1994:49).

The presence of the remains of an ancient settlement on top of Lavda hill has been known for about two centuries. The location close to, and clearly visible from, a well-travelled road meant that they were frequently visited by passing travellers. The first drawings were made in 1811, when the site was visited by Cockerell and Haller von Hallerstein (Haller von Hallerstein 1983:125). There are also numerous written descriptions of the site and the ancient remains here, all of varying length and objectivity. The site was the subject of an investigation performed by the Netherlands School of Archaeology in Athens. This was performed during the years from 1984 to 1988, and reports have been printed in Pharos, the journal of the Netherlands Institute at Athens. During this

work excavations were done in three different areas of the settlement. In the northwestern corner of the settlement, a tower and a gate was investigated, along with parts of the circuit wall. Trenches were also dug on the acropolis, as well as on an unusually flat area just west of the acropolis. This last area is of course the most interesting in relation to this paper, as it is located in an area where we can expect to find remains of residential architecture. (Feije 1993:183-184, Goester and van de Vrie 1998:119)

Topography

Lavda hill has a remarkable and characteristic profile. It is quite steep, has a sharply pointed top and straight flanks. The top of the hill is relatively flat, with the highest point reaching 752 meters above sea level. The northern slope reaches steeply down to the river Alpheios about 600 meters below. Halfway up this slope lies the old village of Theisoa. After an earthquake destroyed most of this village in 1965, a new village was built somewhat higher up on a plateau about two thirds of the way up. The other sides plunge abruptly into deep valleys before immediately rising into new mountains of similar height. The south face is slightly less steep than the northern side, and is divided into two broad ridges by a dried out stream. On the eastern side the slope ends in a low ridge connecting Lavda hill with the hills to the southeast. The western slope descends more gradually, ending in a small ridge connecting to a mountain to the northwest. (Goester 1993:201-203, Feije 1994:49).

The hill is crowned by the ruins of an ancient town, believed to be the ancient Thisoa known from written sources. This belief was reinforced by the find of a partial inscription on a tile. The town is enclosed by a double line of fortification, of which the inner one formed a citadel or acropolis. The town itself occupies the lower terrace inside the outer wall. What appears to be the main gate is found in the middle of the southern wall, where the slope down from the hill is even and not very steep. (Feije 1993:149). The area enclosed by the outer wall is approximately 400 meters from east to west, and nearly 200 meters from north to south at the widest point. The acropolis is located along the northern wall, slightly to the east of the centre. There are gates in the centre of the south wall, as well as on the eastern and western ends, the north-west corner and two more along the north wall, one of these leading out directly from the acropolis. There is also a gate in the south-east corner of the acropolis wall leading out inside the outer wall.

Today the road leading to the small modern village of Theisoa runs along the mountain on which ancient Lavda is situated, approximately 400 meters up from the valley bottom. From this road a

small unmarked dirt road zigzags up the steep mountainside, climbing the remaining 200 meters to the top in 2 kilometres. It circles the peak before ending by an information board by the city's western gate. The site itself was at the time of my visit completely covered in waist high grasses and shrubs. The excavated buildings were completely hidden by the vegetation, though the city walls were visible for most of their length, as well as parts of the acropolis walls.

Planning of the site

There is no mention of the city being orthogonally planned in the reports. The subject of planning is never raised, but it seems likely that it would have been if evidence of this had been found.

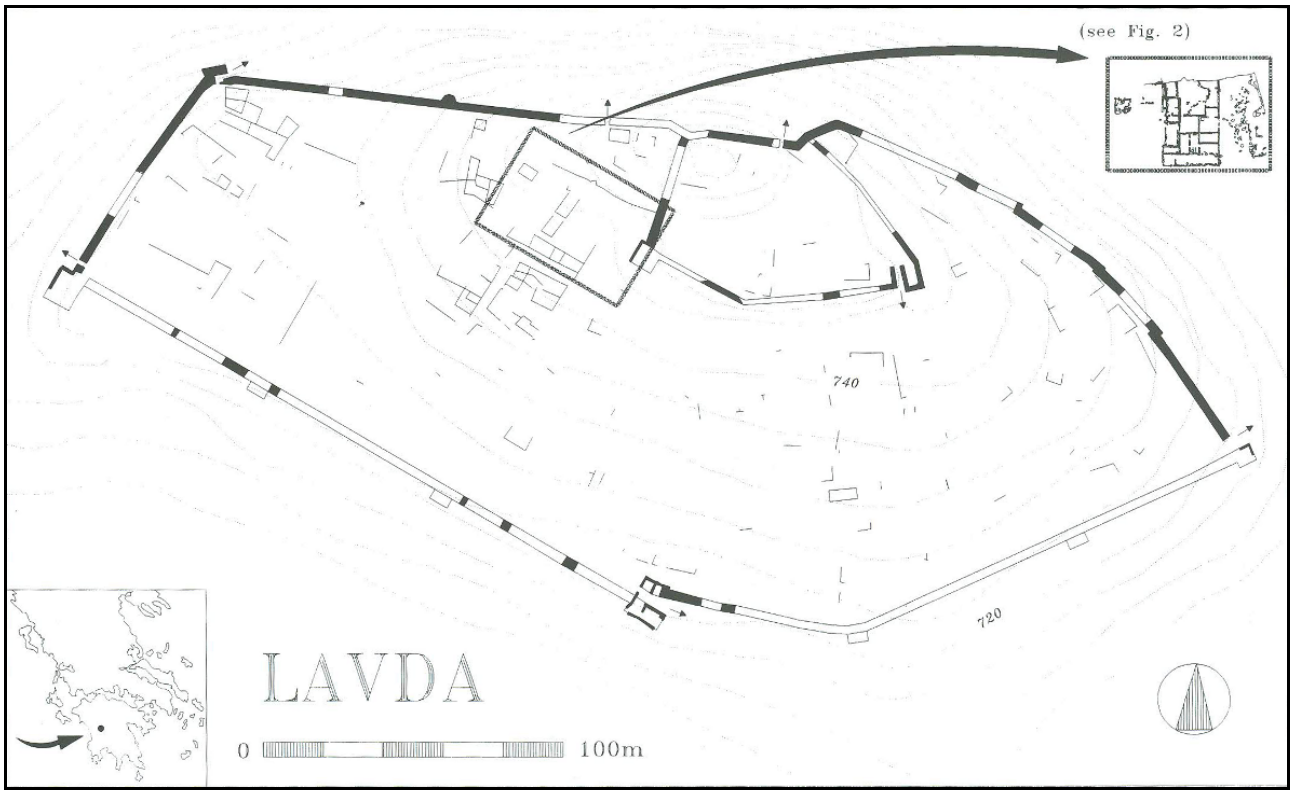

Illustration 12: City plan of Lavda

Looking at the map of the city one can see that certain walls line up to form what might have been straight streets, and that some of these seem to match up with gates in the circuit wall. However, none of these streets appear to be parallel to each other, nor do they meet at right angles. Not enough of the site has been excavated to make any certain conclusions from this. Another problem with identifying any plan for the city from the maps, is that they appear to show all the walls that were found, regardless of the period they are from. This means that it is possible (although perhaps not probable) that an orthogonal plan was present at the site in earlier periods, but that later structures did not follow the same plan, thus obscuring it. It is of course similarly possible

that the combination of walls from different periods add up to indicate streets that never actually existed.

There are also several reasons why it might not have been practical to apply an orthogonal street plan at this site. First of all the topography of the site would make it very difficult. A grid plan is most suited for sites located on even ground, and using it on this rugged site might not even have been possible. The size of the city might also have an effect. The irregular path of the walls would mean that much of the already small area inside the walls would be taken up by incomplete *insula* which would give an ineffective use of the available space.

Structures on the site

As mentioned above, the excavations performed during the work in 1984-88 included a number of trenches in a flat area just outside the western acropolis wall, close to the north part of the circuit wall. These trenches uncovered the remains of a house, the layout of which, along with the suggested dates for the various phases of use and construction, I will look more closely at here.

Phase 1

The original building on this location, the construction, habitation and destruction of which constituted Phase 1, has not been completely excavated. Approximately a third of the building's surface is covered by heaps of stones and later buildings (see Phase 3), preventing the placement of trenches here.

It has not been possible to establish a firm date for the initial construction of the house. A date in the middle of the 2nd century BC is thought to be likely, though it could be as late as into the 1st century. The house has a rectangular plan, and measures 22.5 meters north to south and 18.9 meters east to west. It is located at a distance of about 12 to 15 meters west of the acropolis wall.

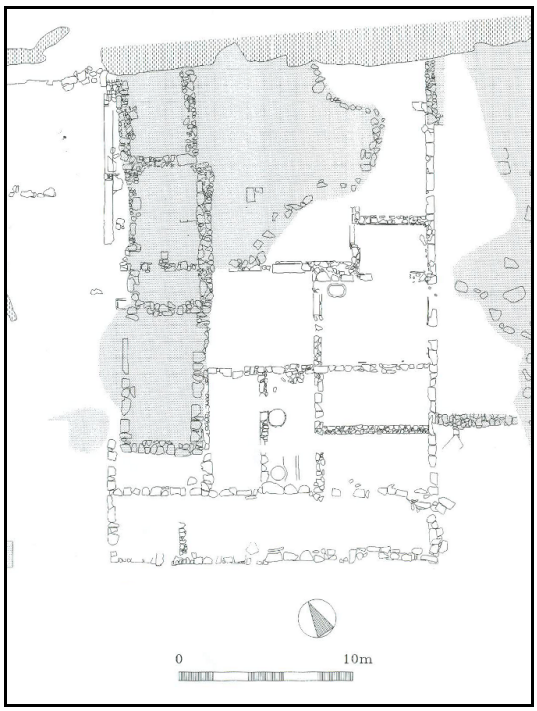

Illustration 13: House plan from Lavda

The main entrance of the house is believed to have been located in the west wall, leading through a porch, or possibly directly into the central courtyard. Surrounding this we find at least 12

rooms, possibly as many as 16, five of these are directly connected to the courtyard. The walls consist of a foundation and socle of limestone blocks, about 45 cm thick, on top of which were walls of mudbrick. On the walls of the representative rooms this was covered with stucco. The floors are packed earth, with stone thresholds where the uneven bedrock made different floor heights necessary. Apart from over the courtyard, which was open, the entire house appears to have been covered by a tiled roof, probably sloped down towards the courtyard.

The house was occupied for about two or three generations after its construction. After this the house seems to have been abandoned and destroyed. It is possible that the destruction was done deliberately.

Phase 2

The second period of use, designated as phase 2, is not clearly separated from phase 1 chronologically, so the house probably did not stay abandoned for long before being repopulated. In this phase only parts of the house were used, the walls being rebuilt around five of the rooms, located south of the courtyard. All doors leading from this section of the house and into other rooms that were not used, or into the courtyard, were walled up. This new version of the house was then used until probably about the end of the 1st century BC, when this too was deserted and fell into ruin.

Phase 3

Phase 3 is a later period of usage of the same location, though the structures are new. The date of this phase is particularly uncertain, as finds are present pointing to either Roman, Byzantine or even Frankish time. During this phase a number of small buildings were erected, measuring approximately 3 by 7 meters. The walls are made up of loosely packed stone blocks which are dug down, with the floors on a level below that of the surrounding ground. Three of these structures were located on top of the site of the earlier house, covering most of the north-western side. There may be more of these buildings in other areas that were not excavated. (Goester and van de Vrie 1998:120-146).

Dating of the site

The date for the construction of the circuit wall of Lavda, and thus probably also the foundation of

the city is believed to be in the 4th century BC (Goester and van de Vrie 1998:120-146). At latest the city is known to have been in existence at the turnover from the 4th to the 3rd century BC (Goester et al. 2007:200-202).

The age of the earliest excavated building on the site of ancient Lavda is uncertain, but a tentative date in the middle of the 2nd century BC has been suggested. It could however well be into the start of the 1st century. The later period of use, Phase 3, is even less securely dated, with finds that indicate various different periods from Roman to Frankish time.

Classification

The street layout at Lavda is difficult to identify, as the various periods of use tend to confuse any overview. It does, however, seem most likely that there was no orthogonal grid plan on the site. If this is the case, then it creates a quite difficult question. It is either possible that Lavda was an unplanned city, growing up gradually as the terrain allowed. The other possibility is that the city was build according to a non-orthogonal plan, similar to the monumental cities from the Hellenistic period. Judging from the date of the founding of Lavda both alternatives seem possible. Towards the end of the Classical period the hippodamian principles of town planning were losing their importance, and thus it would be logical to disregard them when settling such an uneven site. On the other hand, if we accept a date late in the fourth century for the founding Lavda it might be an example of monumental planning, an idea which started in the Classical period and grew more common in Hellenistic times. Without further excavations on the site, enough to allow the reconstruction of parts of the city, this is of course impossible to give a clear answer to.

A single house has been excavated at Lavda, dated to the 2nd century BC. This house is constructed of mudbrick on stone foundations, forming 45 cm thick walls. The layout is somewhat obscured by later disturbances, but it appears to have consisted of a central courtyard surrounded on three or four sides by between twelve and sixteen rooms. If we assume that the courtyard bordered one of the outer walls, with rooms on only three sides, the layout seems quite similar to the *pastas* type house, though with a different orientation. If, on the other hand, the courtyard was surrounded by rooms on all sides the layout would be closer to the *peristyle* type, except that the actual columns around the courtyard are missing or not discovered. The shape of the plot is more or less square, which is consistent with both these house types, but the relatively modest size is closer to that of the *pastas* houses. This is, however, offset by the large number of rooms, which, if the higher number is accepted, far exceeds what is common in a *pastas* house. With the house at Lavda dated to the second century, a *peristyle* house would be more in keeping with the time. It would perhaps most

correctly be seen as having features from both the *pastas* and *peristyle* house types. With only a single house excavated at Lavda, where the function of the rooms are not identified, any more accurate classification is difficult to make.

6.4 Other Arcadian *poleis*

Tegea

The ancient city of Tegea is located in central eastern Arcadia, where it controlled a large area of highland plain and low hills. It lies in the centre of a wide flat valley which narrows towards the north, before widening again into the plain that was the territory of ancient Mantineia. The city of Tegea used to be one of the most important cities on the Peloponnese peninsula, but remains surprisingly unexplored from an archaeological point of view. (Ødegård 2010:1, Ødegård 2005:209-210).

Archaeological work on the site was performed as early as 1892, when Bérard through a few trial trenches made a suggestion for the layout of the city walls. Further work was performed in the 1980s by the Ephorate of Antiquities of Arcadia and Laconia. In the years from 1990 to 1994 the Norwegian Institute at Athens ran a series of excavations at the site of the sanctuary of Athena Alea, about 1 km south of the city. The temple is now well presented and open to the public. In 1998 a project was started in order to gather more information about the settlement of Tegea itself.

This project continued for three years, and resulted in a much more detailed picture of the city, though it is still far from complete. (Ødegård 2010:1-2, Ødegård 2005:210-212).

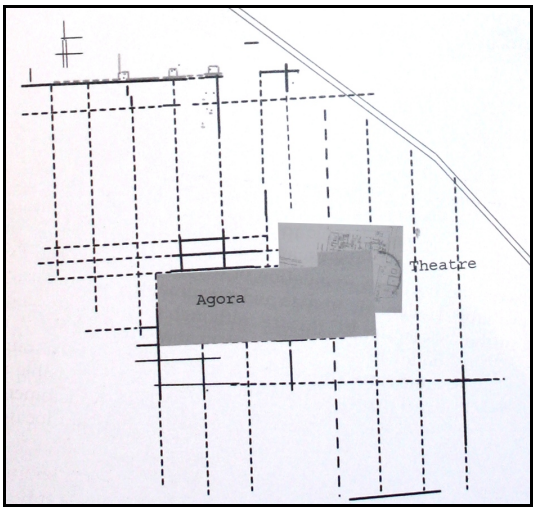

Illustration 14: Hypothetical city plan of Tegea

The layout of the city is known mainly from the magnetometer surveys performed by the Norwegian institute from 1998 to 2001, and has not been confirmed by excavation. They have identified several avenues running north-south, intersected at right angles by smaller streets. Along many of the streets the neighbouring walls could also be identified. The grid of streets create a number of rectangular *insulae* of a uniform size, measuring 25 by 75 meters. This appears to be the standard size for the city, and seems to have been used over the entire site. The

streets appear to have been paved with a ceramic material. Most of the streets seem to have been approximately 2 to 3 meters wide, but one street, which may be connected to the *agora,* measures around 5 to 6 meters. The *agora* was located in a large open space in the centre of the city. The acropolis of the city has not been identified. It might have been located on one of the two hills to the north of the city, or possibly within the city itself, though no significant hills can be seen there today. (Ødegård 2010:3-4, Ødegård 2005:211).

The earliest material found on the site during the survey of the Norwegian Institute was dated to the second half of the 6th century BC. There are also a number of architectural fragments dated to the later part of the same century. This dating is also confirmed by Greek archaeologists who have worked in the same area. If these dates for the plan of the city of Tegea are correct, then that would mean that Tegea might be the oldest documented planned city in Greece. (Ødegård 2010:6-9).

Classification

The street layout which has been discovered at Tegea consists of relatively long and narrow *insulae*. This is a fairly typical example of *per strigas* planning. Unfortunately the locations of the public structures and sanctuaries are not known, and the precise extent of the agora is uncertain. This makes it impossible to say anything about the incorporation of these elements into the overall plan.

As there are currently no excavated houses at Tegea, so there is no basis to make a classification of these.

Megalopolis

The city of Megalopolis was founded by *synoecism* from several Arcadian *poleis*, after the battle of Leuktra in 371 BC. The city was founded as a link in the Arcadian defence against the constant threat of their Spartan neighbours. (Gardner et al. 1892:1, Nielsen 2004:520-521, Roy 2005:261-262).

The city is located centrally in a wide valley of gently rolling terrain. The length of this valley runs from the north-northeast to south-southwest. From the city to the east and the west the sides of the valley rises quite sharply into high mountains, while to the north the terrain continues flat for a while before rising more gradually. The southern end of the valley continues all the way down to Sparta, separated only by an area of relatively low hills.

Excavations where performed on the site in 1890 to 1891, and published by The Society For the Promotion of Hellenic Studies (Gardner et al. 1892). These centred mainly around the theatre

and the agora of the ancient city. Further work was done from 1991 to 2002, also this focusing on the agora. (Gardner et al. 1892:6, Lauter 2005:235). Today the only visible remains of the great city of ancient Megalopolis are the theatre where archaeologists are currently working and some remains from the agora.

Due to the above mentioned excavators predilection for the public structures, very little is known of the remaining parts of the city. The city walls were measured during the work in the early 1890s, and found to be approximately 9 km long and enclosing an area of 3,5 km^2. It is unknown how much of this large area was populated, and how densely, It is commonly assumed that the enclosed area was too large for the population, but even with only a third of the available land used the population would still be about 10,000. (Gardner et al. 1892:115-116, Nielsen 2004:522).

While it has not been confirmed by excavations, it is probable that Megalopolis was laid out in a grid plan of some sort. At the time of its founding grid planned cities were the most common, and the terrain in the area is flat and even and would lend itself well to such a plan. The circumstances of the founding would also invite to this type of layout. All the inhabitants were arriving from other cities, so an even distribution of land would be preferable. The grid layout also increased the speed with which a city could be built, which would be a great advantage when founding a city under threat of attack.

Classification

Unfortunately neither the plan nor any houses are known from Megalopolis, so without any further excavations on the site there is not much to classify.

Asea

The ancient town of Asea is located in southern Arcadia, in a valley to the east of Megalopolis. The settlement occupies the plateau on top of a hill that lies near the centre of the valley, separate from the surrounding hills and mountains. This hill is the highest point for some distance around, meaning that it is visible from a large area surrounding it. The ground below the hill the city is located on consists of mostly flat land. To the north this turns gradually into mountains. To the other sides the land continues out into a flat valley extending to the southeast and south. This valley is separated only by a low chain of mountains from the valley in which Megalopolis is located.

Archaeological work on the site started in 1936 and continued until 1938. An additional season to finish up the work was planned for 1940, but this had to be cancelled due to the outbreak of the war. (Holmberg 1944:XIIV-XI, 1).

The site was populated from the later part of the Neolithic period and until the Middle Helladic period. At that point it appears to have been abandoned, and it probably saw no more than sporadic use for the next 1500 years. In the middle of the 3rd century BC the hill was once again populated. This time it was the site for a small fortified Hellenistic settlement. A higher area to the east on the hill held a temple, and might be seen as an acropolis, though no walls separating it from the rest of the settlement are found. The remainder of the plateau seem to have been used for private houses. (Holmberg 1944:132, 174, 181).

The circuit walls followed the contours of the relatively flat plateau of the hill, and added to this was a second length of wall encircling an area below the hill to the south and east. It is uncertain whether this expansion was part of the original plan, or if it was added later as the need for more space arose. It is not bonded into the circuit wall, but the exact same techniques and materials are used, so there cannot be much time between the construction phases. (Holmberg 1944:132, 181).

The characteristic shape of the hill on which the city is located, with its steep craggy sides and flat top, makes it easily recognizable. The remains of the city walls are still visible in some places, but the way in which it follows the contours and crags of the hill makes it difficult to discern what is natural and what is man-made. The modern city of Kâto Asea lies below on the flat ground to the south of the hill.

The entire plateau of the hill appears to have been occupied by houses. The ground plans of three complete houses have been uncovered, along with a number of others that are incomplete for various reasons. Only the stone foundations of the walls are preserved, and on these there were probably walls of bricks. Similar walls were apparently found on the area below the hill, though these are not mentioned in any greater detail, nor are they shown on any of the maps. (Holmberg 1944:143)

The largest and best preserved of the complete houses is located at the northern end of the hill. Its ground plan is in the shape of a long rectangle, approximately 9 by 40 meters, with the longer sides running from east to west. The short ends, or at least one of them, are believed to have faced a street, while to the north and south lie similar buildings separated from this one by narrow passages. The entrance to the building is from the passage to its north, and enters into an open courtyard. This courtyard lies in the centre of the house, and separates the remaining rooms into an eastern and a western section. The western part is entered through a hall, with columns facing the courtyard. Behind this are found a further four rooms. This was probably the living quarters of the

house. The second group of rooms, to the east of the courtyard, consists of about ten rooms, including two believed to have been used for pressing wine. To the west of the living quarters there are a further two rooms that are not accessible from inside the house. These might have been stores facing the streets. It is impossible to tell if the structure was either entirely or partially two-storied. The walls are thick enough to have supported this, but no signs of stairs are found in the house. (Holmberg 1944:147-153).

The second excavated house lies adjacent to the southern part of the city wall. Signs of the same layout as in the previous house can be traced, but the structure is far more irregular. The walls turn in unusual places, and at unusual angles, meaning that there is no straight wall that could have properly lined a street, and many of the rooms are strangely shaped. This house appears to be a more irregular version of the one described above, I will therefore focus on the previous one in my further discussion. The third house, near the centre of the hill, consists of only two rooms, and has therefore probably not served as living quarters. It therefore falls outside the scope of this work. (Holmberg 1944:153, 158).

With only single houses from the Hellenistic period excavated at separate locations on the site, it is difficult to tell whether the layout of the town was planned or not. The northern house does have neighbours parallel on two sides, but it is not possible to tell whether the short ends of the structures also lined up and thus created a regular *insula*. Also, if a grid of streets were to be expanded over the rest of the site based on the orientation of these buildings, no streets would have followed the length of the hill. They would instead have crossed the available area at diagonals, making for a very poor use of the limited space. The building to the south is unlikely to have been part of a regular *insula*. However, its location next to the city wall could mean that it simply utilizes an area that is too small for an *insula.* None of its walls seem to line up with the buildings mentioned above. (Plate V I Holmberg 1944).

Classification

The street plan of Asea is a somewhat complicated affair. Not enough of the streets have been identified to allow for a reliable reconstruction of the layout. What has been found, however, does not appear to conform to any single grid plan. One of the fully excavated houses does seem to be part of a regular *insula*, but without further excavations it is not possible to say anything certain about the size or shape of this *insula*. From the shape of the house it seems logical to assume that the layout might have consisted of long rectangular houses forming square *insulae*, which would

imply a hippodamian plan. However, the alignment of the excavated house is far from optimal if this system was to be extended further onto the site, and this would mean that there would be room for very few, if any, complete *insulae* on the site. Therefore it seems likely that there was no consistent plan on the site of ancient Asea. This gives, as for Lavda above, two possible scenarios for the construction of the city. It could have been built without any plan present, with houses placed as the terrain and earlier structures allowed. The other possibility is that the city was planned for the best use of space or most visually pleasing appearance, which would probably not include any extensive grid plan but could still have included a few complete *insulae*. Without more detailed knowledge of the roads and structures of the site it is hard to give any answer to this, and the date set for the founding of the site is compatible with either of the possibilities.

There are two excavated structures at Asea that are believed to have served as houses. The one of these which I will be focusing on is located near the northern end of the site, where it occupies a long rectangular plot. The length of the house is separated into two sections by a central courtyard covering the width of the plot. The rooms of the western section, believed to be the living quarters, are reached through a hall which opens onto the courtyard through a row of columns. The eastern part of the house consists of ten rooms of various functions. At the very western end of the house there are also two further rooms not accessible from within the house itself. These are believed to have served as stores facing the streets outside. The layout of this house seems like a fairly typical example of a *prostas* house. It has the correct oblong plot shape, and it is separated into two distinct sections of different functions by the courtyard. The house might be slightly larger and have had a greater number of rooms than what is common for *prostas* houses, but such variations must probably be expected, and can be attributed to any number of different causes.

Mantineia

The ancient city of Mantineia in eastern Arcadia was first founded some time in the late Archaic or early Classical period. In 385 BC the city was forcibly dissolved by the Spartans. The inhabitants were forced to move into the surrounding small villages, and the city walls were destroyed. In 370 BC after having been abandoned for 15 years, the city of Mantineia was refounded, and the defences were rebuilt. It remained in existence until the sixth or seventh century AD. (Hodkinson and Hodkinson 1981:239, 256).

The city is located in the northern end of the same valley as Tegea, close to the eastern side of the smaller northern section. Apart from a hill some distance to the north and a ridge extending from the mountains to the east, the city is surrounded by surprisingly flat terrain. The land rises quickly into mountains to the east and west, and more gradually to the north. To the south the valley

continues through a relatively narrow pass towards Tegea to the south.

The earliest archaeological work on the site was performed by Fougères and Bérard in the years from 1887 to 1889. These excavations concentrated on the central area of public buildings in the city, as well as on the city walls. The limited time available for this work, only six months, means that it was nowhere near complete. After this only sporadic work has been done on the site. (Hodkinson and Hodkinson 1981:257).

Today only the remains of a theatre are still visible on the site, in a fenced off area. At the time of my visit, Greek archaeologists were working to clear up the vegetation that has covered the site in the time since the French worked there. The site is easily accessible from the nearby road, as long as you arrive within the opening hours.

The city walls from the second foundation of Mantineia were still mostly visible when Fougères and Bérard did their work on the site. The 3,942 meter long wall encircles an area of 1.24 km^2. The location of the city wall of the older city is not known, but it is believed to be the same as the new one. A section of the wall is built in a different technique from the rest, and this might be remains of the old wall that escaped destruction and was incorporated into the new. However, the walls of the new city were built with considerable haste, from fear of Spartan attacks, and workers from several Arcadian cities helped in the work. So the difference in technique could be caused by different groups working on separate parts of the walls. The Spartan threat and associated rush to get their defences in place can also explain why the wall was built identical to the old one, and not expanded to accommodate a larger population. (Hodkinson and Hodkinson 1981:256-258)

The Agora of Mantineia, which is believed to have been in the same place in both the old and the new city, lies slightly to the east of the centre of the area inside the walls. It is thought to have been placed at a convergence of several of the main roads through the city, roads linking gates on opposite sides of the city with each other. Thus it could function as a hub not only for commercial purposes, but also in defending the city. It could provide an open space for troops to gather, with easy access to whichever part of the wall needed reinforcing, and also function as central headquarters for the general. Archaeological investigations have confirmed that the agora was linked to at least three different gates, and also found two sets of gates connected with each other. This would seem to imply a more or less orthogonal plan, though it is not possible to make it out in any detail without further excavations. Hodkinson and Hodkinson (1981) also suggest a different layout for the city, a compromise between an orthogonal and a radial plan. This has some streets

running parallel to each other in both directions across the site, while some radiate out from the central agora to the gates like the spokes of a wheel. Not much else is known of the layout of Mantineia, as the vast private sector remains nearly untouched by archaeologists. (Hodkinson and Hodkinson 1981:258-259)

Classification

The town plan which has been identified at Mantineia does not clearly resemble any of the common types of layouts I have looked at earlier. It does appear to be planned, though, using a more or less orthogonal grid for the streets. There are unfortunately no excavated houses at Mantineia, so it is obviously impossible to say anything about the house type used. It will therefore be difficult to directly compare Mantineia to any of the other cities in a meaningful way. What can be said is that it is clearly a planned city, and its founding is dated to the period when city planning was gaining in importance in Greece.

Chapter 7

Comparison and Discussion

In this chapter I will be working with the different cities in ancient Arcadia which I have studied above, and looking at how each of them compares with my chosen example cities from other parts of Greece. In order to be able to do this comparison in an effective and logical manner, I will first need to sort the cities based on the categorising I did earlier. This will give a better overview of what aspects are shared between the different cities, and should help in finding logical comparisons later. I will create two different tables for this, one for the layout of the cities and one for the house types found in them. This is due to the fact that the date set for the founding of the cities, and thus the layout of the streets, often differs from the one for the construction of the houses. This will allow me to sort both tables based on the dates, which would not be possible otherwise. In order to make these tables I will need to establish a number of criteria by which I can sort the cities. I will then set up tables containing each of the cities as well as the criteria I will use to sort them. For the purposes of this table I will be treating the three different stages of the construction of Olynthus (see chapter 3.1) as if they were three different cities. I have chosen to do this because of the vast differences between these sections, especially concerning planning, topography and dating. Treating them as a single unit would too easily confuse any comparisons to other cities, and make such comparisons much less accurate. It should also be noted that some of the cities have no available information concerning the residential buildings on the site, and I will therefore exclude them from the table showing the house types.

Once I have established the criteria and described each of the cities according to them, I can use this to choose which cities are likely to make informative comparisons. I will start by comparing cities which are believed to have been built at approximately the same time, but are located in different parts of Greece. This should hopefully help me to determine how Arcadian cities compare with contemporary cities in other areas, and whether there is any truth in the view of Arcadia as a rural and underdeveloped region. Next it might be relevant to compare some Arcadian cities with cities founded in different periods. Especially if there are cases where the Arcadian cities share more of the same attributes with these than with the contemporary ones.

7.1 Criteria for preliminary sorting of the cities

Street Grid

Here I will state whether or not there is reason to believe that the layout of the city in question was planned before its construction. Where a grid is visible I will also if possible indicate whether it most resembles a *per strigas* or a hippodamian plan. The presence of a non-grid plan for a site is, as mentioned before, almost impossible to discover without extensive excavations and reconstructions. I will therefore have to treat these cities together with the unplanned cities for the sake of this comparison. The categories will therefore be "non-grid", including both unplanned and monumentally planned cities, "*per strigas"* and "hippodamian" plans for those cities where it is possible to make that distinction, as well as "grid plan" for those where it is not.

House Type

In this category I will state what type of houses have been identified on the site. I will in particular be looking at whether the houses can be classed as any predefined house type, such as *pastas, prostas* or *peristyle* houses. Where this is not the case, I will try to determine if the plan of the houses are completely irregular or if they seem to follow some plan other than those defined as house types. Due to the low number of excavated houses in the Arcadian cities, this will need to be extrapolated from the available examples. There is of course a possibility that other houses on the site follow different plans, and only further excavations would make it possible to determine this.

Location

Here I will look at the topographical location of the city. For this table I will only examine the location of the city in the terrain immediately surrounding it. The cities will be classified by whether they are located on the top of a hill or a mountain or not, and by whether the terrain at their location is uneven or more or less flat. Thus the possible categories will be "flat ground", "uneven ground", "flat hilltop" and "uneven hilltop". Since any raised acropolis is normally excluded from any grid plan used in the rest of the city I will disregard these when looking at the terrain.

Founding Date

Here I will state the date when the city is believed to have been built. Mostly this will be the same as the date for the founding of the city, but in those cases where a city has been extensively rebuilt I

will give the date for the construction of the phase which is most relevant for this thesis. Unless any information to the contrary is available, I will assume that the street network of the cities is laid out at its construction. Where this date has not been firmly establish I will of course indicate a more general period. In the case of ancient Olynthus, where I have included the three different sections of the city separately, the date is the time of construction for the relevant section.

House date

Here I will state the date for the construction of the excavated houses on the site, as this in some cases differs from the date of the founding of the city.

City name	**Founding date BC**	**Layout**	**Terrain type**
South Olynthus	*10th - 7th*	*Non-grid*	*Flat hilltop*
Tegea	Late 6th	Per strigas	Flat ground
Kyparissia	Early 5th	Per strigas	Flat ground
Mantineia	Early 5th	Grid plan	Flat ground
North Olynthus	*432*	*Per strigas*	*Flat hilltop*
Olynthus Villa	*End of 5th or early 4th*	*Per strigas*	*Flat ground*
Stymphalos	Early 4th	Per strigas	Flat ground
Megalopolis	370	Grid plan	Flat ground
Priene	*353-352*	*Hippodamian*	*Uneven ground*
Lavda	4th	Non-grid	Uneven hilltop
Asea	Mid 3rd	Uncertain	Flat hilltop
Delos	*166*	*Non-grid*	*Uneven ground*

Table 1: Classification of city plans

City Name	House date BC	House type
South Olynthus	*10th - 7th*	*Irregular*
Kyparissia	Early 5th	Pastas
North Olynthus	*432*	*Pastas*
Olynthus Villa	*End of 5th or early 4th*	*Pastas*
Stymphalos	4th	Pastas
Asea	Mid 3rd	Prostas
Lavda	2nd	Pastas/peristyle
Priene	*Early 2nd*	*Prostas*
Delos	*166*	*Peristyle and prostas*

Table 2: Classification of house types

7.2 Arcadian cities compared to other Greek cities

In this section I will go through each of the Arcadian cities that I have looked at previously and see how they compare to the cities outside the region. I will start by looking at the layout of the streets in the city, and try to compare this to that of other cities to discover similarities or differences. I will then look at the founding dates and compare this to the founding date of the most similar city outside Arcadia. Next, for those cities where this is relevant, I will then look at any houses that have been excavated on the site. I will compare the layout and construction of these with houses known from the cities outside Arcadia. I will then compare the date of the construction of the various houses to try to find any similarities or variations. From this series of comparisons I hope to then be able to form a picture of the development of city planning and house construction in ancient Arcadia compared to other parts of Greece. Where the dates for the plan and the houses are the same I will discuss both together, but where the dates are different it will be necessary to distinguish between them. Since Megalopolis has neither an identified street plan nor any excavated houses, I will exclude it from this comparison.

Kyparissia layout and house

The town plan at Kyparissia seem most likely to have followed the *per strigas* system, but as the length of the *insulae* has not been confirmed by the excavations this is not certain. The exact locations of the agora, public structures and sanctuaries are unknown, so it could also have hippodamian elements but this cannot be confirmed without further excavations. Assuming a relatively longish rectangular shape for the *insulae*, as seems likely, the layout of the streets would

be quite consistent with that found on the North Hill of Olynthus.

With this in mind it seem natural to compare the house found at Kyparissia with those from Olynthus. At first glance the ground plans seem quite different, at least if comparing with the most typical of the Olynthus houses. However, if we look at the great variations of ground plans found on the Olynthus North Hill the house found at Kyparissia would not look noticeably out of place in one of the *insulae*, and all of its deviations from the standard can be found repeated in other houses.

Both the street layout and the excavated house at Kyparissia have been dated to the first half of the 5th century BC, and the houses and the layout of the North Hill at Olynthus are dated to the year 432 BC. From this I would say that Kyparissia seems like a typical city for its time, both when compared to my example city and to the general development of cities in Greece.

Stymphalos layout

While the length of the *insulae* found at Stymphalos is not consistent across the site, it is generally above three times the width of the *insulae*. This is quite in keeping with the *per strigas* system of town planning. There is not enough information available about the location of the agora and public structures to make it possible to say anything about whether these also followed the *per strigas* system. This street layout seems similar to that found on the North Hill at Olynthus, though it is slightly less rigid. The founding of Stymphalos has been dated between 375 and 350 BC. This means that it is slightly later than the plan on the Olynthus North Hill from 432 which it resembles. Compared to this, the plan at Stymphalos could be considered to be a bit old fashioned. However, keeping in mind that the methods of city planning did not change very much throughout the Classical period I would still say that the plan at Stymphalos is fairly typical for its time.

Stymphalos house

There is only one relevant house excavated at Stymphalos which has a ground plan that is clear enough to classify its layout. This house seems to follow the basic layout common for the *pastas* type, but in a much simpler form with fewer rooms. It has the characteristic placement of the courtyard in the centre of the southern half of the house, surrounded on three sides by rooms. The building material differs from what is common for houses from this time, it is built from large worked stone blocks rather than mudbrick. This could of course be linked with the simpler layout, as constructing additional walls in this material would require much more work than normal. The Stymphalos house has been dated to the 4th century BC. This makes it later than the similar *pastas* houses found at the North Hill at Olynthus. The vagueness of the dating does not allow for any more accurate estimation of the difference. Overall the house does not seem unusual for its time.

Lavda layout

The plan of the city of ancient Lavda does not show any clear signs of straight streets on the site. The limited size of the excavations on the site mean that such streets could simply not yet have been discovered, but until further information is available it would appear that no street grid was present. This means that the city could either be completely unplanned, or it might have been planned without a grid of straight streets. Compared to my example cities, Lavda, which is dated to the 4th century BC, seems somewhat unusual. From what little is known of the layout it seems mostly to resemble Delos, but it is dated approximately two hundred years earlier. The dating makes it rather early for being built without a grid plan, as the hippodamian principles were still widely used at that time.

The lack of a grid plan could perhaps be explained by the topography of the site. The city walls, creating the natural limit for the size of the town, follow the edge of the hill on which the settlement is located. It would therefore not be feasible to increase the modest size of the town if more space was needed. This would probably mean that the available space would need to be utilized as effectively as possible, and the erratic course of the city walls means that a grid plan would be far from the best option. In addition to this the terrain on top of the hill is far from flat, which would make the application of a strict grid plan quite tricky. It should be noted that perfect grid plans have been achieved on more uneven sites, such as Priene, but it could still be an argument against using a grid plan on this site.

As we can see, the layout of Lavda is somewhat uncommon for its time. I believe, however, that this could be at least partially explained by the unusual topography.

Lavda house

There is only a single house at Lavda which has had enough of its plan revealed to be of use in this comparison. The layout of the house is unfortunately not entirely clear due to later disturbances. This means that it is not possible to determine whether the courtyard of the house lies along one side wall or if it is surrounded by rooms on all sides. This means that the plan could coincide with either the *pastas* or the *peristyle* type. The square plot on which it is located is also compatible with both these types. The size of the house is in line with what is normal for a *pastas* houses, and rather small for a *peristyle* house. However, the number of rooms in the house is much larger that that found in most *pastas* houses and much more in line with what is common in *peristyle* houses. So it seems that the house has aspects from both *pastas* and *peristyle* house types. The house has been dated to the 2nd century BC, making it approximately contemporary with the *peristyle* houses found at Delos. The house at Lavda could be seen as either a smaller version of a *peristyle* house or an

elaborate *pastas* house, or possibly an intermediate form between the two. Seen as a *pastas* house it would perhaps be a bit outdated, while as a *peristyle* it would be just right for its time, depending on the interpretation of the ground plan.

Tegea layout

The layout of the streets at Tegea seem most consistent with the *per strigas* plan. The *insulae* have a length of three times their width, with their longer axis orientated east-west. This layout shows clear similarities to that found on the North Hill at Olynthus. Both the shape and orientation of the *insulae* are nearly identical. The exact location and extent of the agora, as well as the locations of the public structures and sanctuaries are not yet known for the plan at Tegea. This means that they could either be incorporated into the plan in a more hippodamian manner, as is seen at Olynthus, or they could be placed independently of the plan as is common in *per strigas* plans. The plan at Tegea is tentatively dated to the last half of the 6th century BC. When compared to the North Hill at Olynthus, dated to 432 BC, this would seem quite early for a planned city. It should, however, be kept in mind that there are much earlier known examples of planned towns from the Greek colonies. So a *per strigas* system at Tegea would be early when compared to cities in mainland Greece, and my example at Olynthus, but not too unusual if compared to the Greek colonies and the general development of Greek cities.

Asea layout and house

For Asea there is not enough information available to create a reliable plan of the streets on the site. The presence of at least some straight streets is indicated by the excavated houses, and one of them also appear to have been part of a regular *insula*. However, the alignment of the excavated buildings across the site is not consistent, indicating that if a grid plan was present it did not extend uniformly across the whole site. At least three different grid alignments would be necessary to incorporate all the excavated structures. If the style of *insulae* indicated by the most thoroughly excavated house is taken as an indication for the plan, then it would most likely be similar to the hippodamian plan found at Priene. It could of course also be a single *insula* of its type, with other types used elsewhere as part of a "monumental" plan without an orthogonal street grid. However, without further excavations on the site, this must remain mostly speculation. The founding of Asea is dated to the middle of the 3rd century BC, which would make either a hippodamian plan or a plan without a uniform grid quite normal for the time.

The house found at Asea seems to be a quite typical *prostas* house. When compared to the *prostas* houses found at Priene we see striking similarities. The sectioning of the rooms is the same,

with a central courtyard separating it into two distinct sections, one of livingquarters and one of other rooms. Both houses also have an additional group of rooms interpreted as shops or workshops, that are facing the street and are not accessible from within the house. The shapes of the plots of the houses are also similar, with the house at Asea being slightly more elongated with a length over four times its width as compared to the length of the houses at Priene being just under three times their width. The house at Asea does have a substantially larger number of rooms than what is normal at Priene, but this can probably at least partially be attributed to the greater size of the house.

The house at Asea is dated as the city to the middle of the 3rd century BC. This makes it only slightly earlier than the houses at Priene, and would thus suggest that it is a fairly normal house for the time.

Mantineia layout

The street layout at Mantineia is unfortunately not entirely clear, as the focus of the excavations has been elsewhere. It seems clear, however, that the city was grid planned, though it is not possible to discern between a *per strigas* and a hippodamian scheme. This leaves little material for comparison. But looking at the date for the construction of the city, in the first half of the 5th century BC, the city is built at a point in Greek history when orthogonally planned cities were very common. Thus it seems, from the little material available, that Mantineia does at least not differ in any noticeable way from what was normal for its time.

Chapter 8

Conclusions

In this thesis I have looked at a selection of Arcadian cities, focusing on finds of residential architecture and traces of planned city grids. My main focus has been on the three sites Kyparissia, Stymphalos and Lavda. At Kyparissia there are clear signs of an orthogonal street plan, most likely of the *per strigas* type. There is also one complete house which has been excavated, and this seems to belong to the *pastas* type. The street plan at Stymphalos has been well documented through the extensive electrical resistance surveys on the site. This has revealed a typical *per strigas* plan stretching across the site. Only one house from a relevant period has been fully excavated, and this appears to be a *pastas* house. At the hilltop site of Lavda there has not been found traces of an orthogonal street plan. This could be because such a plan would be unsuited to the rugged terrain of the site. There has, however, been excavated a Hellenistic house on the site. This appears to be a *pastas* house with some features from the *peristyle* type. A grid plan following the *per strigas* system has also been found at Tegea, and an undetermined orthogonal plan at Mantineia. There has also been found a house of the *prostas* type on the hilltop site of Asea.

The next step was then to compare these findings with example cities located elsewhere in Greece. For this I used Olynthus, Priene and Delos, all thoroughly excavated and well documented cities. Olynthus is laid out in a *per strigas* system, and the houses are of the *pastas* type. The street plan of Priene is a typical example of hippodamian planning, and the houses are of the *prostas* type. Lastly Delos does not have an orthogonal street plan, but has examples of both *prostas* and *peristyle* houses. In my comparison I looked at the street plan and excavated houses of each of the Arcadian sites, comparing them to their closest equivalent from among the example sites. I then looked at the dates to see how these compare. From this I found that the city plans in Arcadia seem to follow the general development quite well. Some of them are perhaps a bit early for their type. The most noticeable of these is the city plan at Tegea, which might be the earliest discovered example of orthogonal planning in mainland Greece. Apart from this none of plans appear to fall outside the normal development for Greek cities. The same seems to be true for the houses found at the sites. Greek houses follow a less clear development, and several types are used simultaneously. This means that there is a larger variety of types that are “normal” at any given time, thus making it more difficult to class buildings as typical for their time. What can be said is that none of the houses found in the Arcadian cities are clearly unusual for their time.

From this we can see that there are signs of several planned cities in ancient Arcadia. Both

the important cities well known from written sources, such as Tegea and Mantineia, and smaller cities such as Kyparissia and Stymphalos. There are also several examples of typical Greek houses found at the sites, showing great similarities with the material from the rest of Greece. The dates for these finds show that both the street plans and the houses are roughly contemporary with their counterparts in other regions, indicating that the development of town planning and residential architecture in Arcadia coincides with that of Greece in general. From this it would seem that any ideas of Arcadia as a backwards and underdeveloped region are unfounded, at least when it comes to cities and living standards.

I hope that the archaeological interest in the region of ancient Arcadia will continue to grow, and that further excavations will be undertaken which will continue to increase our knowledge of Arcadian city planning and residential architecture. Such work is already in progress at the site of ancient Tegea, and hopefully other Arcadian cities will also receive further attention in the near future. This goes for both sites that have had limited work done in their residential areas, and those where these areas remain completely untouched. Such work could hopefully reinforce our knowledge and add further detail to our understanding of this subject.

Literature

Abbreviations

Classical Views = Echos du monde Classique, Classical Views, Journal of the Classical Association of Canada, Revue de la Societe canadienne des etuden classiques

Mouseion = Mouseion, Journal of the Classical Association of Canada, Revue de la Societe canadienne des etuden classiques (formerly Classical Views).

Pharos = Pharos, Journal of the Netherlands Institute in Athens.

Books and Annuals

Biers, W.R. 1996. *The archaeology of Greece.* 2nd ed. Ithaca: Cornell University Press.

Cahill, N. 2002. *Household and City Organisation at Olynthos.* New Haven and London: Yale University Press.

Dinsmoor, W.B. 1950. *The Architecture of Ancient Greece.* London: B. T. Batsford Ltd.

Feije, J.J. 1993. "Lavda. History of the site". *Pharos: Archaeological Investigations at Lavda in Arcadia, 1.* Vol I, 1993. pp. 183-200.

Feije, J.J. 1994. "Lavda. The site, the walls". *Pharos: Archaeological Investigations at Lavda in Arcadia, 2.* Vol II, 1994. pp. 49-89.

Flensted-Jensen, P. 2004. "Thrace from Axios to Strymon". *An inventory of Archaic and Classical Poleis. An investigation conducted by the Copenhagen Polis Centre for the Danish National Research Foundation.* Edited by Hansen, M. H. and Nielsen, T.H. Oxford: University Press. pp. 810-853.

Gardner, E.A., Loring, W., Richards, G. C., Schultz, R.W. Woodhouse, W. J. 1892. *Excavations at Megalopolis, 1890-1891 with an architectural description by Robert Weir Schultz. Supplementary paper / Society for the Promotion of Hellenic Studies 1.* London : Macmillan

Goester, Y.C. 1993. "The Landscape of Lavda". *Pharos: Archaeological Investigations at Lavda in Arcadia, 1.* Vol I, 1993. pp. 201-208.

Goester, Y.C. 1994. "Lavda. Outside the circuit walls". *Pharos: Archaeological Investigations at Lavda in Arcadia, 2.* Vol II, 1994. pp. 39-48.

Goester, Y.C. 1995. "Lavda. The Coins". *Pharos: Archaeological Investigations at Lavda in Arcadia, 3.* Vol III, 1995. pp. 131-139.

Goester, Y. C. and van de Vrie, D.M. 1998. "Lavda. The excavation 1986-1988". *Pharos.* Vol VI, 1998. pp. 119-176.

Goester, Y., Grieb, V. and Mattern, T. 2007. “Theisoa (Lavda): Vorbericht über die Kampagne 2007” *Pharos.* Vol XV, 2007. pp. 193-203.

Gruben, G. 2000. “Klassische Bauforschung“. *Klassische Archäologie. Eine Einführung.* Edited by Borbein, A.H., Hölscher, T. and Zanker, P. Darmstadt: Wissenschaftliche Buchgesellschaft. pp. 251-279.

Haller von Hallerstein, H. 1983. *...und die Erde gebar ein Lächeln.* München: Süddeutscher Verlag

Hansen, M. H. and Nielsen, T.H. 2004. *An inventory of Archaic and Classical Poleis. An investigation conducted by the Copenhagen Polis Centre for the Danish National Research Foundation.* Edited by Hansen, M. H. and Nielsen, T.H. Oxford: University Press.

Hodkinson, S. and Hodkinson, H. 1981. “Mantineia and the Mantinike: Settlement and Society in a Greek Polis”. *The Annual of the British School at Athens* Vol. 76. pp. 239-296.

Hoepfner, W. and Schwandtner, E-L. 1994. *Haus und Stadt im klassischen Griechenland.* Wohnen in der klassischen Polis 1. München: Deutscher Kunstverlag.

Holmberg, E.J. 1944. *The Swedish excavations at Asea in Arcadia. Skrifter utgivna av Svenska institutet i Rom, 4o. Acta Instituti romani regni Sueciae 11.* Translated by Hammarstrand, N, and Pain, K.M. Lund : C.W.K. Gleerup

Jost, M. 1985. *Études péloponnésiennes. 9, Sanctuaires et cultes d'Arcadie.* Paris: J. Vrin

Karapanagiotou, A.V. 2005. “Preliminary notices on the excavation of a Classical town at Kyparissia, Gourtyna” *Ancient Arkadia: Papers from the third international seminar on Ancient Arkadia, held at the Norwegian Institute at Athens, 7-10 May 2002.* Edited by Østby, E. Athens: Norwegian Institute at Athens. pp. 331-350.

Lauter, H. 2005. “Megalopolis: Ausgrabung auf der Agora 1991-2002” *Ancient Arkadia: Papers from the third international seminar on Ancient Arkadia, held at the Norwegian Institute at Athens, 7-10 May 2002.* Edited by Østby, E. Athens: Norwegian Institute at Athens. pp. 235-248.

Müller-Wiener, W. 1977. “Archäologie, Bauforschung und Denkmalpflege: Die Verantwortung gegenüber Objekten am Fundort” in *Archäologie*. Berlin: Colloquium Verlag. pp. 152-161.

Nielsen, T. H. 1996. *Arkadien: Region og Identitet.* København: Museum Tusculanums Forlag.

Nielsen, T. H. 1999. ”The Concept of Arkadia – The People, their Land and their Organisation.” in *Defining Ancient Arkadia: Symposium, April, 1-4 1998.* Edited by Nielsen, T. H. and Roy, J. Copenhagen: The Royal Danish Academy of Science and Letters. pp. 16-79.

Nielsen, T. H. 2002. *Arkadia and its Poleis in the Archaic and Classical Periods.* Göttingen: Vandenhoeck and Ruprecht.

Nielsen, T.H. 2005. “Arkadia”. *An inventory of Archaic and Classical Poleis. An investigation*

conducted by the Copenhagen Polis Centre for the Danish National Research Foundation. Edited by Hansen, M. H. and Nielsen, T.H. Oxford: University Press. pp. 505-539.

Nielsen, T. H. 2010. "Arkadia". *The Oxford Encyclopedia of Ancient Greece and Rome. Vol 1.* Edited by Gagarin, M. Oxford, New York: Oxford University Press. pp 153-154.

Owens, E.J. 1991. *The City in the Greek and Roman World.* London and New York: Routledge.

Pikoulas, Y. A. 1999. "The Road-Network of Arkadia" *Defining Ancient Arkadia: Symposium, April, 1-4 1998.* Edited by Nielsen, T. H. and Roy, J. Copenhagen: The Royal Danish Academy of Science and Letters. pp. 248-319.

Pretzler, M. 2005. "Polybios to Pausanias: Arkadian Identity in the Roman Empire" *Ancient Arkadia: Papers from the third international seminar on Ancient Arkadia, held at the Norwegian Institute at Athens, 7-10 May 2002.* Edited by Østby, E. Athens: Norwegian Institute at Athens. pp. 521-534.

Renfrew, C. and Bahn, P. 2008. *Archaeology: Theories, Methods and Practice*. London: Thames and Hudson.

Rider, B. C. 1965. *The Greek House, its history and development from the Neolithic period to the Hellenistic age.* Cambridge: University Press

Robertson, D. S. 1954. *A Handbook of Greek and Roman Architecture.* 2nd ed. Cambridge: University Press

Robinson, D. M. and Graham, W. J. 1938. *Excavations at Olynthus, Part VIII, The Hellenic House: a study of the houses found at Olynthus with a detailed account of those excavated in 1931 and 1934.* Baltimore: The John Hopkins Press

Roy, J. 1999. "The Economies of Arkadia" in *Defining Ancient Arkadia: Symposium, April, 1-4 1998.* Edited by Nielsen, T. H. and Roy, J. Copenhagen: The Royal Danish Academy of Science and Letters. pp. 320-381.

Roy, J. 2005. "Synoikizing Megalopolis: The scope of the Synoikism and the interests of local Arcadian communities" *Ancient Arkadia: Papers from the third international seminar on Ancient Arkadia, held at the Norwegian Institute at Athens, 7-10 May 2002.* Edited by Østby, E. Athens: Norwegian Institute at Athens. pp. 261-272.

Schuller, M. 2002. *Monuments and sites VII: Building archaeology.* Edited by ICOMOS. München: Lipp GmbH.

Tomlinson, R. 1992. *From Mycenae to Constantinople: The evolution of the ancient city.* London and New York: Routledge.

Ward-Perkins, J.B. 1974. *Cities of Ancient Greece and Italy: Planning in Classical Antiquity.* New York: George Braziller.

Whitley, J. 2001. *The Archaeology of Ancient Greece.* Cambridge: University Press.

Williams, H. 1983. "Stymphalos: A Planned City of Ancient Arcadia". *Classical views.* Vol XXVII – N.S. 2, 1983, No. 2. pp. 194-205.

Williams, H. 1984. "Investigations at Mytilene and Stymphalos, 1983". *Classical views.* Vol XXVIII – N.S. 3, 1984, No. 2. pp. 169-186.

Williams, H. 1985. "Investigations at Stymphalos, 1984". *Classical views.* Vol XXIX – N.S. 4, 1985, No. 2. pp. 215-224.

Williams, H. and Croncite Price, S-M. 1995. "Excavations at Stymphalos, 1994". *Classical views.* Vol XXXIX – N.S. 14, 1995, No. 1. pp. 1-22.

Williams, H. 1996. "Excavations at Stymphalos, 1995". *Classical views.* Vol XL – N.S. 15, 1996, No. 1. pp. 75-98.

Williams, H., Schaus, G., Croncite Price, S-M., Gourley, B. and Lutomsky, H. 1997. " Excavations at Ancient Stymphalos, 1996". *Classical views.* Vol XLI – N.S. 16, 1997, No.1. pp. 23-73.

Williams, H., Schaus, G., Croncite Price, S-M., Gourley, B. and Hagerman, C. 1998. " Excavations at Ancient Stymphalos, 1997". *Classical views.* Vol XLII – N.S. 17, 1998, No.2. pp. 261-319.

Williams, H., Schaus, G., Gourley, B., Croncite Price, S-M., Sherwood, K.D. and Lolos, Y. 2002. " Excavations at Ancient Stymphalos, 1999-2002". *Mouseion.* Vol XLVI – Series III, 2002, No.2. pp. 135-187.

Williams, H. 2005. "The Exploration of Ancient Stymphalos, 1982-2002" *Ancient Arkadia: Papers from the third international seminar on Ancient Arkadia, held at the Norwegian Institute at Athens, 7-10 May 2002.* Edited by Østby, E. Athens: Norwegian Institute at Athens. pp. 397-411

Ødegård, K. 2005. "The Topography of Ancient Tegea: New discoveries and old problems". *Ancient Arkadia: Papers from the third international seminar on Ancient Arkadia, held at the Norwegian Institute at Athens, 7-10 May 2002.* Edited by Østby, E. Athens: Norwegian Institute at Athens. pp. 209-224.

Ødegård, K. 2010. "Urban Planning in the Greek Motherland: Late Archaic Tegea". *Acta ad archaeologiam et atrium historiam pertinentia, Institutum Romanum Norvegiae.* Vol. XXIII, N.S. 9. 2010. pp. 5-22.

Østby, E. 2005. "Preface" *Ancient Arkadia: Papers from the third international seminar on Ancient Arkadia, held at the Norwegian Institute at Athens, 7-10 May 2002.* Edited by Østby, E. Athens: Norwegian Institute at Athens. pp. 11-13.

Ancient literature

Herodotos. *The Histories*. Book I. With English translation by A.D. Godley. First published 1946. Cambridge: Harvard University Press

Pausanias. *Description of Greece.* Book III and IV. With English translation by W.H.S. Jones. First printed 1926. London: William Heinemann Ltd.

Strabo. *The Geography.* Book VIII. With English translation by H.L. Jones. First published 1923. Cambridge: Harvard University Press

Homer. *The Iliad.* Book II. With English translation by A.T. Murray. First published 1946. London : William Heinemann Ltd.