

Pastoral Nomads on the Syrian Steppe in the Early Bronze Age –

a study of burial monuments in the hinterland of Palmyra



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A Master thesis in Archaeology

Spring 2011

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Acknowledgements

First of all I wish to thank the people in Syria who has made the Syrian-Norwegian research project possible. At the Museum of Palmyra I wish to thank Director Walid Assad and Abdelbasit. I would also like to thank Dr. Michel Al-Maqdissi at the Directorate General of Antiquities and Museums in Damascus.

During my travels to Syria I have met archaeologists and other people that have shared their knowledge with me. Thank you so much for your hospitality! For valuable experience in the field I must also thank Jørgen Christian Meyer, the director of the Palmyrena Project.

I thank my advisor Nils Anfinset with all sincerity. I am very thankful for the opportunity to participate in the fieldwork in Palmyra in 2009; an eye – opener for a student with no prior experience. Anfinsets patience during my work, his enthusiasm and his insights have been invaluable.

Writing this thesis in English was necessary, but challenging. I wish to thank cand.philol. (and my uncle!) Aasmund Haanes for improving my language through his thorough reading and useful tips.

I wish to thank my family for always encouraging me and taking interest in my field of study; my brother-in-law for telling (!) me to study archaeology and my sister for encouraging me not to stop at a Bachelor Degree. A special thanks to my parents for their encouragement to travel to, and explore the Middle East and the financial support they have provided for my travels. My nephews Sigmund and Harald, my dearest “colleagues”: the excavations with you in the backyard are the best! Sweet Åsa, we will save some treasure till you are old enough to join!

Lars, thank you for always listening to me when I talk about my project! And thank you even more for always making sure that I come home to a happy and relaxed home. You are exceptional!

To my fellow-students at “the office”: thank you for conversation, literature, patience and all the good times!

The world is closing in on the culture and way of life of the nomadic population today. My hope is that academic research can contribute to helpful insight to us all, to make us understand the importance of mobile peoples all over the world.

Hildegunn Maria Haanes Ruset
Stavanger, 15th of May, 2011

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(Cover photo: Cairn in the Hinterland of Palmyra (Anfinset, 2009:1)

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1. Introduction

1.1. Syria in the Early Bronze Age

The Early Bronze Age in Syria (2900 BCE - 2000 BCE) was a period of great socio-economic variation, a variation that is also evident the extended region of the Near East. In this period the adaption of complex societies and urbanisation, as well as a degradation of these processes are evident in historical, textual and archaeological material (Dever, 1998:282; Akkermans and Schwartz, 2003).

Through the whole of the fourth and third millennium BCE, Mesopotamian dynasties and cities, the most prominent being the city of Uruk, the Dynasty of Sargon of Akkade and the Dynasty of Ur, held prominent positions in the networks of trade and communication in the region and their control and influence reached well into Syria. The geographical position Syria holds made it a natural junction for the growing network of communication and trade that the Middle East experienced through the EBA.

The first process of urbanisation in Syria took place in the fifth millennium BCE (Oats et al., 2007), therefore the urbanisation that is evident in the third millennium BCE has been named “the second urban revolution” (Castel and Peltenburg, 2007). Unlike the earlier urbanisation processes, which is assumed to be under heavy influence of the Mesopotamian urban centres, the second urban revolution has an indigenous outspring (Castel and Peltenburg, 2007). After the influence of the Uruk-expansion declined, the first quarter of the third millennium was not a time of urbanisation in Syria (Akkermans and Schwartz, 2003:211). Around 2600 – 2500 BCE the “second urban revolution” took place and the activity was focused around the Euphrates River and in the dry-farming areas which had a minimum of 200 mm annual rainfall (Castle and Peltenburg, 2007).

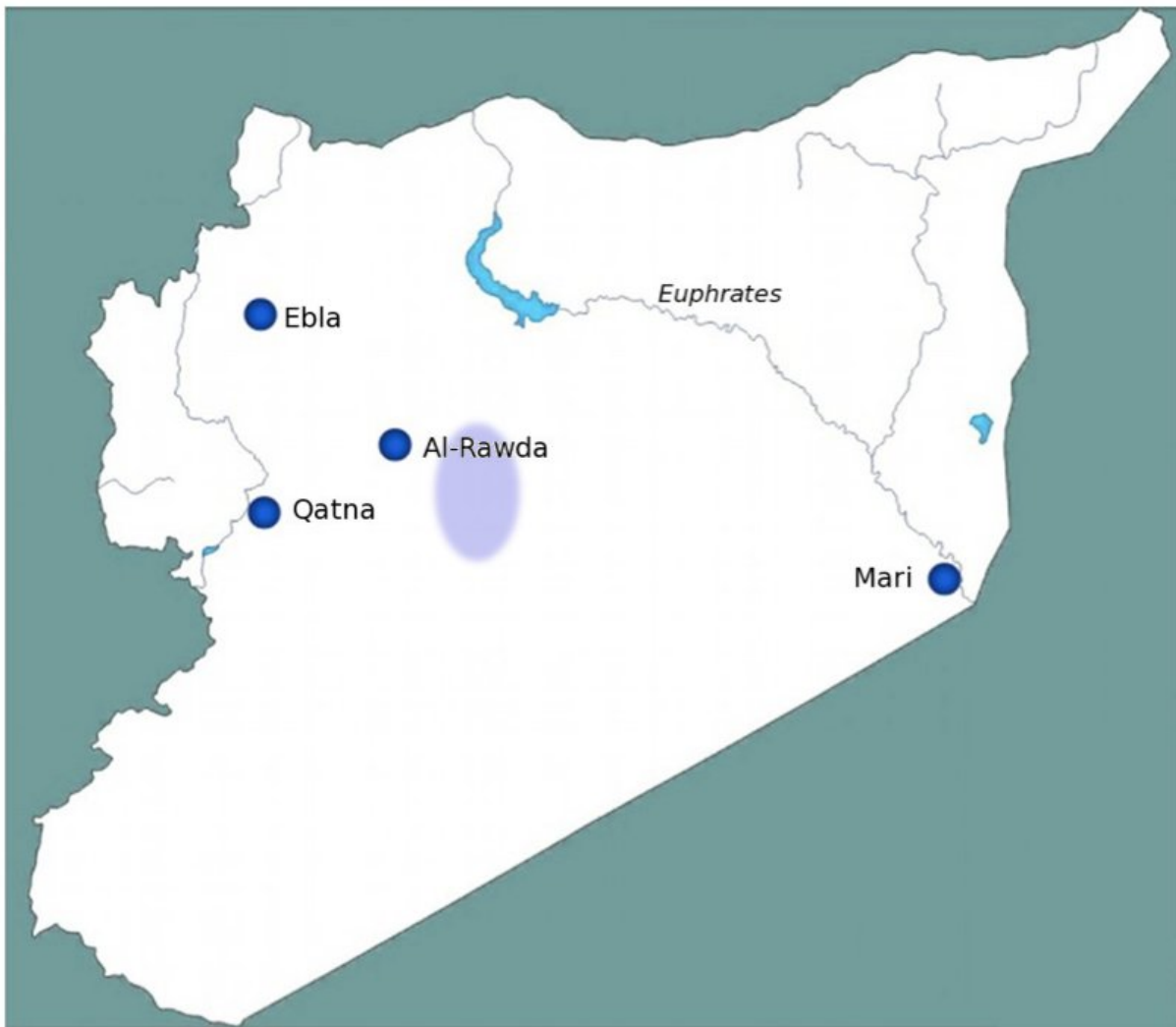


Figure 1. Prominent urban centres in Syria in Early Bronze Age, including research area of this thesis

The most prominent Syrian cities during the second urban revolution and the third millennium BCE are Ebla, Mari and Qatna (fig.1). These cities probably served as regional centres in the most densely populated areas of Syria in the mid third millennium (Akkermans and Schwartz, 2003:244-245). During excavations at these large centres, monumental buildings, large burials and numerous tablets tell us about the strong position the urban centres held in the period. The tablets from Ebla, dating to the last half of the third millennium BCE, consist mostly of bureaucratic information concerning trade. The tablets are evidence of a large network of trade, power and long distance communication in the greater region (Akkermans and Schwartz, 2003; Castle and Peltenburg, 2007).

At the end of the third millennium an alleged collapse takes place in the period termed EBA IV. It is not only in Syria that the urbanisation that is evident in EBA II and EBA III has

been interpreted to decrease in EBA IV. In the regions neighbouring on Syria, there has been proved to be a transition from urban social organisation and agricultural economy to more rural and widespread organisation and pastoral economy at this time (Dever, 1998:282). Phenomena as climatic change and political and social process must be considered as possible reasons for this kind of change.

The mentioned socio-economic changes throughout the region in the third millennium BCE, with the decline of urbanisation and the degradation of the large centres, have often been interpreted as collapse brought on by dramatic and intrusive events. More recent studies show that this might not be the case and that in light of the increasing urbanisation in the Middle Bronze age, a cyclical pattern, pulsating between urbanisation and decentralisation, must be considered.

1.2. Short comment on the chronology of Syria in the Early Bronze Age

The chronological terms that will be applied to the Early Bronze Age in Syria in this thesis will be EBA I, EBA II, EBA III and EBA IV.

BCE	Syro-Palestine	Upper Mesopotamia
3400 – 3000 BCE	EBA I	L.Chalcolithic/Uruk
3000 – 2400 BCE	EBA II	Early Bronze Age/Ninevite 5
2400 – 2200 BCE	EBA III	Mid Early Bronze Age
2200 – 2000 BCE	EBA IV	Late Early Bronze Age

Table 1. Chronology of Chalcolithic/Early Bronze Age, Syro-Palestine and Upper Mesopotamia (Wilkinson, 2003).

The chronologies presented above are Palestinian chronology and Upper Mesopotamian chronology. This chronology, in addition to Lower Mesopotamian chronology (Uruk, Early Dynastic I-III), is often applied to studies of ancient Syria (Akkermanns and Schwartz, 2003:13). According to Akkermanns and Schwartz (2003), this is not fortunate for archaeological research in Syria, as it gives a false impression of synchronous development in the area and a better solution is to develop a Syrian chronology based on local sequences

(Akkermans and Schwartz, 2003:13). As will become evident in the research questions of this thesis, the research area will be seen in context of an extended region; a comparison will take place and therefore the terms EBA I, EBA II, EBA III and EBA IV are chosen. In the part of the Syrian steppe that includes the research area of this thesis, it will be more accurate to consider the starting point of EBA later than in the Mesopotamian chronology: around 2900 BCE. The starting point of the period will not be discussed further; it is the last half of the third millennium that is the chronological framework of this thesis and the periods will be termed EBA II, EBA III and EBA IV.

The chronology is debated, especially concerning EBA IV. It has been suggested that this period should rather be included in the Middle Bronze Age (MBA) and termed MB I (Prag, 1985:81). The period has also previously been termed Intermediate Bronze Age, a view that is partly based on the assumption that a clean cultural break occurred as the region was invaded by the pastoral Amorites (Prag, 1985:81). As the archaeological material show a clear continuance in culture between EBA III and the succeeding period (Prag, 1985:81), the term EBA IV is in this thesis applied to the period, giving room to a different perspective on the socio-economic shift that occurred between EBA III and EBA IV.

1.3. The departing point of this study

The most extensive research concerned with third millennium urbanism in Syria is conducted in the northern, northwestern and eastern parts of Syria, more specifically the Fertile Crescent with the Orontes Valley in the West, Balikh to the north and Khabur in the northeast. The research in these areas has been continuous to this day.

The areas surrounding the urban centres have been neglected in the research and the picture is therefore not complete. As will be demonstrated in this thesis, much of the information that is needed to understand the development in EBA Syria is found in between the urban centres.

Complex societies rarely exist and develop in isolation (Renfrew, 1986:2) and there is no doubt that there were complex, large and densely populated cities and maybe even city-states in the northern and western parts of Syria in the third millennium BCE. Thus, it is plausible that other societies existed contemporary with the urbanised societies. In the Syrian Steppe there are several indicators of utilisation of the marginal areas. Structures connected to livestock, water management and graves are surveyed, indicating pastoral economy in the marginal areas. Pastoralism is often an important component of the Near Eastern economies (Wilkinson et al. 2007:60) and changes in the pastoral societies are also traceable in the third

millennium BCE in Syria. The existence of pastoral groups roaming the pasture on a year-round basis has been hypothesised, but unlike the pastoral economies of the southern Levant and Palestine, which have been the object of much research, the pastoral economies of the Syrian steppe in EBA have not been studied to a mentionable degree (Akkermanns and Schwartz, 2003:272).

1.4. Introduction to the research area of this study

What will be termed the research area in this thesis is the area covered by the first season of the research project Palmyrena: City, Hinterland and Caravan Trade between Occident and Orient. This is the title of a joint Syrian - Norwegian research project undertaken by the University in Bergen in collaboration with Syrian colleagues. The project will have a duration of four years, the first official season was in 2009, the second season is finished now, in May 2011. The basis of this thesis will therefore be the preliminary results from the season in 2009.

The aim of the project is:

...to shed light at the relationship between the oasis city of Palmyra, its surrounding territories, neighbouring empires and systems of long-distance exchange.

(http://www.org.uib.no/palmyrena/content/01_Project.htm)

The project aims to elucidate how the large Roman city of Palmyra, utilised their hinterland for agricultural and pastoral purposes (Anfinset and Meyer, 2010). Unlike earlier research in the area this project also focuses on the prehistoric and Islamic period (Anfinset and Meyer, 2010). I was part of the pre-historic team of the project during the first survey in April and May 2009. During the first official season, the spring of 2009, we surveyed, in addition to 16 Pre – Pottery Neolithic sites, over 150 cairns in the southern part of the concession area (Anfinset and Meyer, 2010). In addition to the burial monuments we surveyed rock shelters, water-collecting systems (cisterns, catch arms), rock cut tombs and corrals, meaning enclosure for confining livestock. We surveyed no domestic structures that can be ascribed to earlier periods than the Roman Period.

1.5. Research Questions

The hypothesis for this thesis is that the numerous cairns that were surveyed in the hinterland of Palmyra in 2009 can be connected to a pastoral nomadic population on the Syrian Steppe in the Early Bronze Age (EBA). This hypothesis is based on the large numbers of cairns and

the fact that there are few signs of permanent settlements. It is also based on comparison to similar areas in the region where a shift from urban central economies to more rural pastoral economies is evident in EBA. Because of the similarities, both in landscape and material, a similar development must also be considered for the research area of this thesis. Special attention will therefore be given to EBA and more precisely the second half of the third millennium BCE.

The research area will be studied at three different levels:

- a) At a micro level the construction and physical appearance of the cairns will be studied in order to be able to compare them with cairns from other areas in the Middle East.
- b) At a meso level the cairns will be studied in context of the research area by studying the relationship between the cairns and the landscape, how the cairns are connected to each other and what this reflects on the position the cairns holds in the landscape.
- c) At a macro level I wish to see the research area in a wider context, comparing it to the region surrounding it. This includes comparing it to other steppe areas in the region; the Negev and Sinai, parts of the Arabian Peninsula and Jordan. By studying the area at these levels the dating of the cairns and their connection to pastoral nomadic groups will be explored.

The main research questions are:

- **Can the cairns in the research area be connected to pastoral nomadic population in the area in EBA?**
- Alleged socio-economic shifts occurred in the third millennium BCE. **What do the cairns reflect concerning the position of pastoral nomads in the Syrian Steppe economically and socially?**
- The above-mentioned shifts are studied to a much larger degree in the areas surrounding our research area. **Can the research area reflect a development in the Syrian steppe similar to the development in the Southern Levant and the Arabian Peninsula in EBA?**
- Socio-economic shifts from urban to pastoral economies are often ascribed to dramatic circumstances and collapse, this has also been the case for third millennium BCE in the Near East. **Can the research area and the comparative areas contribute to**

exploring new perspectives on the nature of the developments in the third millennium BCE?

It is crucial to keep in mind that this thesis only discuss explicitly a few of the many aspects embodied in the landscape and the cairns of the research area. This thesis focuses upon the study of political, economic and social aspects embodied in the cairns and the landscape. These processes are rooted in both functional and cognitive factors. The functional approach will in this thesis not focus on technology and the cognitive approach will not focus on religion, to research the rituals and religious purpose of the cairns is a different study. Still, there is not always a clear division between the religious, social and political aspects of a society; where the religious purposes are clearly connected to social and political purposes, it will be mentioned. By extending the theoretical and methodological perspectives to include the above-mentioned approaches, and by extending the empirical data to include a wider range of areas both geographically and thematically, the research area of this thesis could be further elucidated. Ethnographic studies may also be applied to elucidate the social structures of the past society and the utilisation of the landscape. Several matters must be considered in order to determine the time span of the utilisation of the research area. First of all it is necessary to establish further and more accurate dating of the cairns. It is also important to study whether the cairns are all burial cairns. For reasons of restricted time and resources this study cannot include all factors mentioned above.

The thesis is structured like this: firstly the theoretical perspectives and concepts are outlined. Secondly, an introduction to the methodology of the research is presented. Thirdly, the research history of the area will be presented, preceding a presentation of the new material. A fourth point will be outlining some comparative studies from the region, before the last two chapters of the thesis will analyse the material and attempt to answer the research questions.

2. Theoretical perspectives

This chapter is organized in five sections and a summary of the chapter at the end. The five sections will each outline theoretical perspectives that are important elements of the thesis. What will be discussed is the ability to retrieve information of social and economic character from material culture, the role of climate and climate change in social process, a theoretical approach to the question of pastoral nomads in archaeology and a theoretical approach to landscape and territory as a component of archaeological research. The use of scale in archaeological research will also be mentioned, as the research area of this thesis will be studied at different levels. Each section contains a general description of the perspective, in addition to a short clarification of the relevance it has for this thesis.

2.1. Social archaeology

Social archaeology is the “reconstruction of past social systems and relations” (Renfrew, 1984:3). “Social systems and relations” are categories that include numerous topics (Dark, 1995:88), for example social organisation within a settlement, one site’s relations to other sites, the role of women and children within a society, political boundaries, centres and peripheries, conflict, collaboration, economy and crafts (Dark, 1995:88; Renfrew and Bahn, 2001:173). What characterizes social archaeology is “the combination of increasing methodological expertise and meaningful interpretations” (Redman et. al., 1978:1). As social archaeology not only is concerned with describing artefacts, but rather to describe the social systems of the past society, one can say that social archaeology in a way brought archaeology closer to social science and anthropology. Social archaeology today is closely connected to the post-processual critique, but has its roots in the processualism. Social archaeology developed as a result of what became the aim of archaeological research; to not only reconstruct the past (even this is difficult without a notion of social process), but to also understand *how* and *why* the past occurs as it does (Redman, 1978:1-2; Renfrew, 1984:3). All archaeological studies, either of settlement patterns or material retrieved from an excavation should place the material in a social context (Dark, 1995:115). It should be mentioned that much of the social archaeology focuses on social change, rather than the static social structures (Renfrew, 1984:5).

To be able to draw conclusions that is of social character one must consider that humans are cognitive beings. Cognitive archaeology is an approach that is linked to social archaeology as it deals with cognition of a society, both at a group level and at an individual level (Dark, 1995:143). The cognitive human being is in this context to be interpreted as the

human capability to perceive both their physical and social surroundings and making decisions based on reflections and consideration of these surroundings. The difference in how cognition has been approached in the two paradigms is that while processualists wish to generalize the human cognition, the post-processualists will claim that the cognition takes place at an individual level (Dark, 1995:143). Not only that, but cognition is specific in time and place as well. The cognitive archaeology is also the archaeology of identity and decision-making (Dark, 1995:159); to study social organisation is to attempt to understand the decisions made at an individual level and at a group level within a society which in turn provides information of social structures.

Social and cognitive archaeology is relevant for this thesis as it legitimize the possibility of using archaeological material in the process of tracing social structures of the past. This is a theoretical perspective that is part of the foundation of the thesis rather than a tool that will be explicitly used in the analysis. The following section will further argue the possibility of tracing social structures in material culture.

2.1.1. Social archaeology and material culture

Material culture is traditionally the main object of archaeological research (Cornell and Fahlander, 2002:2). This does not mean that the study of material culture has not changed through the development of archaeology as a science. There has been a long prevailing assumption in the social sciences and in archaeology itself that the discipline could not study deeper relations than economy and technology. Social organisation, ideologies, religious thoughts and other elements that are part of social archaeology, were considered to be out of reach for a discipline like archaeology (Olsen, 2003:176). In the shift between the paradigms processualism and post-processualism, both the questions that were asked and the method and theory that were applied to find the answers, went through changes. Thus, the social life of the past societies became more accessible to archaeology. It became more common to consider the cognitive factors of the material that could in turn make the interpretations of the material less obvious (Dark, 1995:115); one had to consider the symbolic and communicative aspects of the material, which is a far more complex task and which can lead to different scholars concluding differently after studying the same material (Dark, 1995:115; Olsen, 2003:61). Part of the post-processual critique was to establish archaeology as a humanistic, interpretive science, incapable of concluding with absolute certainty (Olsen, 2003:61) and this is one of the most consequential realisations of the post-processual critique.

It is now commonly accepted that material culture, or things, as we can call it, is an important part of human realisation of the world and can thus contain information of different nature (Olsen, 2003:176). Information concerning social organisation can be retrieved from many sources. Among the most common ones are settlements, burials and artefacts (Dark, 1995:88). These three categories can be useful, but must be dealt with cautiously.

Burials have traditionally been considered the most useful source of information of social organisation (Dark, 1995:88-90). Not only the artefacts among the grave goods provide information, but as we will see in this thesis, also the placement and size of the tomb can tell us about the social status of the person buried. This way of studying social organisation can lead to an incorrect picture of reality, since we know that the social structure represented in a burial is often the idealistic one, not the realistic one (Dark, 1995:92).

The use of settlements and structures to determine social organisation is also characterised by uncertainty. Structures, settlement patterns and physical organisation of the space around us have often been the object of theories claiming that such physical organisation reflects the mental and social organisation (Dark, 1995:98-99). In this instance size of buildings, accessibility and architectural features have been defined as categories that can reflect social rank and stratification.

One problem with the theories of social archaeology is that almost all of the theories are intended to study the *hierarchical* relationship *between* people in a society and the challenge is therefore to look at the *nature* of the relationship. The social process and socio-economic process that will be studied in this thesis is a process where the shift is from urbanised agricultural and trade based economies to more rural and pastoral economies. This kind of social process is often interpreted to be a so-called collapse.

2.2. Collapse or cycles: Social process in environmental and political context

Areas where great societal change is evident in the archaeological material, like the one we witness in the Levant at the end of the third millennium BCE, has always been of interest to archaeologists. Often the focus of study is to explain the societal change and the process that leads to the change, in this instance theory of collapse and theory of long-term process are two contrasting views that are often applied.

Societal change is often interpreted as collapse of an empire or the collapse of a more complex society. Collapse is defined in many different manners, but will in a discipline like archaeology include both the end of a *political* entity and a transformation/end of a *cultural* or

social entity (Tainter, 1988:39-40). The degree of continuity and process in such cases varies and scholars seem to apply the term “collapse” to very different processes of change.

The term collapse indicates a dramatic and abrupt end to a society. This seldom occurs, and the term collapse is rather an expression to describe a drastic change in social organisation or a reorganisation of a society (McAnany and Yoffee, 2010:5). The alternative to collapse is a theory of a more long-term change, often of a cyclical nature. The socio-economic changes in the Levant in the third millennium BCE has been discussed extensively concerned with these theories and it is therefore relevant to outline this in this theoretical chapter of this thesis. It is not only the nature of the change that is discussed; the reason that the change occurs is also relevant. Two important factors to be considered in this instance is the climatic and the political framework in which the societal change occurs.

2.2.1. Social process and environment

Climate and climatic changes are often seen as the explanation for social process and change. The theory is that challenging environment leads to drought and famine and the expected outcome of a crisis and food shortage would be war and turmoil (Wossink, 2009:39). This would in turn lead to the collapse of the complex society. Two wrong assumptions can be drawn from this way of thinking: first that the collapse of a complex society is most likely caused by environmental change and second that environmental change will always lead to the downfall of empires and collapse of complex societies. These assumptions are clearly wrong and too simple; there are many ways of considering the role the environment plays in societal change, and it is important to keep in mind that in many cases people overcome difficulties by adapting to the change. The risks a society must take to engage in a conflict might require even more resources than the adaption to new methods and measurements to gain more resources (Wossink, 2009:39). Hence environmental change and challenge do not necessarily lead to collapse, but rather to social change through a more long-term process. Climate can often lead to social change and cultural change as it forces people to develop defensive measures against drought and famine. This defence can either be development of new technology or the adaption to new economies. Farmers becoming pastoral nomads can often be one of these solutions (Wilkinson et al., 2007).

Understanding in which manner people perceive and see their environment and the climatic changes that occur around them is crucial to understanding their adaption to the environment (Rosen, 2007:2). This realisation opened up the study of very different human cultures and geographical areas that until this point had been discarded as uninteresting. When

the humans of the past are acknowledged as cognitive humans with an irrational and emotional approach to parts of their lives, areas that previously had been discounted as undesirable for the humans in the past seemed more likely to have been utilised. The steppe landscape that is the object of this thesis is an example of this.

There are many nuances in the way humans react to climatic changes. The reaction can occur at an individual level and at a group level. In complex societies there will also be different reactions to climatic changes in the different segments of the population. For example, in hierarchical societies, rich landowners might prosper from a drought because of the increased access to cheap labour and cheap resources (Rosen, 2007:8). At the same time the farmer will have to adapt in different ways, exploring grain storage and pastoralism to minimize the negative effects of a drought (Rosen, 2007:9). This means that while some segments of a population can cope through a drought, others might not. There is a possible different outcome from circumstances like these; it could also lead to a shift in power relations. While the landowners will delay the development of technology to minimize the negative effects of the drought, the poorer farmer will be driven to technological development. When the drought passes and the climate stabilises at more favourable conditions, the power structures might have changed.

It is not necessarily so that people react directly to the climatic changes. It is more of a reaction to their perception of the changes (Rosen, 2007:10). The way people see climatic change depends on how they think the changes occurred. To explain the above statement we can look at the current situation in the world today when it comes to the claimed global warming. People believe in it to varying degrees, some claim it is a “natural”, expected climatic cycle, others claim it is caused by human activity, mainly increasing CO₂ emissions. Thus people respond differently, some wish to think short-term and clean up industrial emission, while others wish for us to change the way we conduct ourselves on a more general level.

In a prehistoric context the explanation of the occurrence of climatic change was often linked to cosmology, and both the reason for climatic change and the possibility to change the climate further lay in the cosmological sphere (Rosen, 2007:10). An example of this can be taken from the third millennium BCE in Egypt when the river Nile was dry and famine hit the population hard, the pharaoh was blamed. It was his responsibility to please the deities that were responsible for the waters of the Nile. Even though practical measures like grain storage and so on were taken to prevent people from starving, no long-term steps were taken, because they viewed this as a problem connected to the pharaoh and the pharaoh could be replaced.

Usually, after one or two dry seasons the pharaoh would kill himself in the Nile, burdened by his disability to please the deities. From these examples we see that it is not sufficient to reconstruct climatic conditions and decide on a logical outcome in terms of decision – making. A phenomenological approach is necessary and even if one cannot record the thoughts of the past society one must take into account that the pattern of reaction to climatic conditions can be complex.

Examples from our own time show that people stay in the places they feel they belong to through challenges like drought or flood or human threats like violence and suppression. The emotional connection to one's home is invaluable. It is important to realise that this is also true for the people we study in the past.

Scale is an important keyword for the study of climate in the past. When studying proxy data, the scale is often large as the records can contain information from the last 20 000 years or so. The shifts and trends that can be traced using the methods we possess today will not reveal the smaller changes and shifts in climate (Rosen, 2007:5). Still, these small differences may have been very important for the people experiencing them. Even the slightest decrease in rainfall, down to 50 mm a year, could lead to severe drought and famine (Rosen, 2007:5). This inaccuracy is important to keep in mind when we use climatic studies to understand human culture. In the research area that is the object for this thesis, the annual rainfall varies between the mountains and the wadis, which makes it important to see the research area on a larger scale to get all the information needed. The use of scale as an analytic tool will be more thoroughly outlined in chapter 3. "Methodology".

One must not only consider climate as an explanation of socio-economic change. Political development and the consequences of this can also lead to change in society. Traditionally climatic changes at the end of the third millennium BCE has been seen as an explanation for the change from urban economy to pastoral nomadic economy (Akkermans and Schwartz, 2003:283).

2.2.2. Social process and political events

Not all environmental phenomena can be ascribed to climatic changes; when applying agricultural techniques to achieve a surplus one can often make the agriculture particularly vulnerable to a slight decrease in rainfall. When this happens it has to be seen as a result of political decisions and not climatic or environmental misfortunes.

One of the models of explanations for the assumed collapse in Syria in EBA IV has been that maximisation of agriculture to provide for a growing urban population can lead to

overexploitation of land and resources, leading to a downfall in crops and problems for the population (Akkermans and Schwartz, 2005:284).

A term that is often applied to explain the shift in EBA and that can connect the theoretical perspectives above is "the tragedy of the commons". The tragedy of the commons is when rational decisions by individuals in turn leads to negative implications of the extended society (Hardin, 1968; Errington and Gewertz, 2010:341). When the urban centres were so many and situated so close, the catchment areas of the centres became coterminous. This leads to exploitation of the land that in a long – term perspective drains the areas of resources. This happens because the pastoralist feels a pressure on the grazing land and increases his own herd to profit more. The tragedy of the commons is often implying that this happens while the actors know the consequences of their actions. This is not likely to assume in EBA context, but rivalry based on more short-term concerns is of course evident.

Mesopotamia is often used as an example of how abrupt a collapse can occur. From the Sargon of Akkads empire (ca.2350-2150) to the Assyrian empire there were according to some scholars collapse after collapse with only a few centuries between each collapse (Tainter, 2005:7). An outcome of these presumed events are that the hinterland of the centres becomes ungovernable. Either the pastoral nomads attacks and leads to the demise of the centre, or the pastoral nomads thrive in the absence of the central political control and takes over the land from the urban areas (Tainter, 2005:7-8). This view of pastoral nomads as a force of chaos is widespread and most often this assumption is wrong and leads to a distorted image of the ancient world. These problems will be discussed later, in the section 2.3. Pastoral Nomads.

The climatic changes that occurred in Syria in EBA IV can be interpreted to have led to the adaption to pastoral nomadic economy for segments of the population. A different theory can be that of the inclusion of already existing pastoral nomads from the steppe. Both models can be explained by the need of new resources, either by trade through the steppe or resources from the steppe itself.

Phenomena that are not connected to environmental conditions can also lead to social change as increasing political control can generate several phenomena in a population. This will be further discussed in the following sections concerning pastoral nomads.

2.3. Pastoral nomads

Like the study of any other past society, the study of pastoral nomads is best conducted by applying a diverse theoretical framework and precise methods to find, identify and draw

information from the available material. Unfortunately, the research on pastoral nomads is marked by a static view of mobile groups, including misunderstandings and prejudgement (Barnard and Wendrich, 2008:8). Fortunately, great changes in the research of mobile groups have taken place over the last decades, in several disciplines, including social anthropology and archaeology. These issues will be discussed further in chapter 4.

2.3.1. Definition and description

An ongoing debate in the archaeological and anthropological research of pastoral nomadism concerns the definition of the term “pastoral nomad”. The term is often applied to different communities that do not share much of the same economy, social organisation or pattern of movement. The term has been used to describe peripheral societies living in almost isolation and with an economy reminiscent of hunter-gatherers. At the same time the term is applied to herders living in close relations to agricultural societies with an economy based on exchange between pastoral and agricultural products. Basically pastoralism is an economy based on livestock, from which one exploits the meat, milk or wool, or all of the above. Nomadism is a term, which implies movement. The term pastoral nomadism would therefore mean mobile groups with livestock. This rather simple definition does not hold up against the empirical data showing the diversity of pastoral nomadic groups. Factors that affect the definitions can be the degree of dependence on other economies like agriculture and trade or for the length of the groups travel. Anthropologist Anatoli Khazanov is one of the most prominent researchers on pastoral nomadism and he has outlined four categories in which he divides pastoralism:

1. ”Pastoral nomadism proper”: pastoral nomadism without any supplement of agriculture.
2. Semi-nomadic pastoralism: according to the name this implies pastoralism with restricted mobility where agriculture is an element, though submissive of pastoralism. This can represent a stage in between pastoralism and mixed economy.
3. Semi-sedentary pastoralism: this is not unlike the preceding category, except that agriculture has an even stronger and more explicit role in the economy.
4. Sedentary animal husbandry: this category includes sedentary agriculturalists with livestock as a supplement to the economy.

(Khazanov, 1984:19).

These categories only take into account one of the variables mentioned earlier, namely the relationship between agriculture and pastoralism. Agriculture is a common contributor to pastoral economy; another contributor that should be taken into consideration is trade. It should be noted that the term trade, in this context, which is EBA societies, in most cases should be interpreted as an exchange of commodities.

The isolated pastoral economies are rare, and if they ever existed it is not likely to find these societies in EBA in the Near East. As will be presented later, in Chapter 4, examples from both Jordan and Palestine show that trade was an important component in the pastoral nomadic activity in these areas in EBA. A term that is often used to describe groups with several supply strategies is “multi-resource nomadism” (Barnard and Wendrich, 2008:8; Rosen, 2008:128). This term could be applied to most economies that are generally termed pastoral nomadism. The term implies that the economy is diverse, but that the subsistence is pastoralism. The balance between trade, production and pastoralism as components of the economy varies both geographically and through time.

Because of the mentioned tendency to apply the term pastoral nomads to various groups with very different character, the same happens when trying to define the actual structure within the group. Terms as tribe, confederation and clan are often applied to describe the structure in a pastoral nomadic society. In archaeology the term “tribe” is often applied to describe a level of social organisation that is between “band” and “state” (Eickelman, 2002:116). This term does not only imply that the tribe would be independent of the state; it implies that there is an evolutionary ladder of development from “band” to “state” where “tribe” is somewhere along the way (Eickelman, 2002:116). The reality is that this evolutionary ladder seem not to exist and there are many examples both in the present and in the past, where central state authority impose their politics through tribal organisation (modern-day example is Libya (Eickelman, 2002:116)) or that the tribal groups are closely connected to the state in interdependency, as will be described later in this thesis. It is common in archaeology to use ethnography and analogy when studying past pastoral nomadic societies. Based on this one can say that pastoral nomadic social organisation has two levels: the family level where kinship is the basis of the social organisation and the tribe level where political alliances make out the basis of the organisation. The latter group can include several thousand of members and can geographically stretch over large distances (Anfinset, 2005:152).

In this thesis the term “pastoral nomadism” will be applied to groups where pastoralism makes out the subsistence of the economy and the groups move on a seasonal

basis. The relations with other groups will be discussed and therefore a discussion of the form of pastoral nomadism in question will take place. Depending of the interaction with other groups in trade and communication the organisation of the group will vary. The more contact the more hierarchical the system is likely to be, as communication and trade requires some sort of management.

2.3.2. Frameworks for pastoral nomadism – economic and political perspectives

More important than the exact definition of the term pastoral nomadism, is the question in which framework pastoral nomadic activity occurs. This discussion often starts with the question of the origin of pastoral nomadic economy, a question that according to the important contributor to the research of pastoral nomads, Roger Cribb, one should not try to answer. Instead of tracing the *origin* of pastoral nomadism, one should rather study under which circumstances pastoral nomadic activity occurs and likewise under which circumstances one can *not* seem to find evidence of pastoral nomadism (Cribb, 1991:9-10). This section will not attempt to outline the origin of pastoral nomadism, even though some of the theories presented here are primarily developed to answer the question of the origin of pastoral nomadism. This section will rather present theories that are highly applicable to the study of pastoral nomadism that occur at various times, in various places, under various circumstances.

Another important contributor to the study of pastoral nomads is Karim Sadr who in 1991 published the book “The Development of Nomadism in Ancient North East Africa”. From this book one can extract four different theories of the origin of pastoral nomadism (Sadr, 1991:6-11). The four theories will be outlined here.

1. Pastoral nomadism originated from hunter – gatherers that domesticated their pray. This theory is challenged by archaeological studies that point to the fact that hunger-gatherers often adapted to a mixed economy, before specialising in pastoralism.

2. Pastoral nomadism is a result of ecological circumstances. Degradation and climatic changes forced agriculturalists or societies of mixed economies to areas where agriculture and sedentary pastoralism is difficult and pastoral nomadism was the only option. This very simple way of looking at it, was challenged by what Sadr calls “the cultural school”.

3. The “cultural school” explained the origin of pastoral nomadism as a result of increasing centralisation and strengthening of political control. Agriculturalists or people of mixed economies that lived in the outskirts of these powers would feel an increasing pressure to

subject to the power and would choose a nomadic economy as a defence mechanism towards this power.

4. The fourth option as presented by Sadr is also a cultural explanation where centralisation and a growing political elite demanded more specialisation, among others in pastoralism, to support the economic systems run by the government or leading elite.

One can say that these explanations represent two different views. The first view only takes ecological circumstances, climate and nature into consideration while the second view only emphasises the cultural circumstances and social processes.

Some scholars will claim that the penetration of marginal areas by pastoral nomads is evident as far back as 6200 BCE (Zarins, 1990:46). Many scholars claim that pastoral nomadism occurred in relation with growing sedentary populations, because of the need for food production, initially meat (Anfinset, 2008:9). Two scenarios can be drawn; first that pastoral nomadism occurs as a parallel development to agricultural settlements, or that pastoral nomadism occurs as a result of the growing agricultural development and need for food (Anfinset, 2008:10).

It is important to keep in mind that pastoral nomadic societies vary in nature just as much as other societies and can therefore not be generalized. It can be a problem that the definition of pastoral nomadism is often mostly concerned with the groups' relationship with sedentary groups. Taking into consideration the fact that pastoral nomads seldom operate in isolation from other groups (Khazanov, 1984:19), this is not surprising.

Several theoretical models have been applied to political landscapes where nomads seem to be autonomous, but in close relation to a political power (Rowton, 1974:3). The common denominators for these theories are that the pastoral nomadic groups live in close relation to agricultural and sedentary groups (Anfinset, 2010:89). To how large an extent one can discuss polities or political territories in EBA is a large discussion that requires a lot more attention to conclude on than this thesis can offer. The difference between a polity and a catchment area must be clarified. Catchment area is an area that is linked to an urban centre because it provides resources that is needed in the centre (Smith, 2003:153). This does not mean that the catchment area is under political control from the urban centre. The urban centres in Syria in EBA were in some instances situated so close together that the catchment areas of the centres in many instances must have been coterminous. Pastoral nomads are often part of such catchment areas as their produce is needed in the urban areas, but the pastoral nomads and the landscape in which they move is not under political control of the polity that

need their produce (Smith, 2003:153, n.7). In arid and environmentally challenging areas, the presence of pastoral nomads can be explained by the need of channels for trade or exchange of merchandise. To keep these channels open and safe in challenging environments, the need for mobile groups with pastoral economy is evident (Rosen, 2008:128 – 129). As will be exemplified in chapter 6, this external demand will in some instances be the reason, or at least one of the reasons, for pastoral nomads to inhabit especially challenging environments, as for example the Negev. On the other hand, one can claim that the channels are there because of the already present pastoral nomads. Either way represents an explanation of pastoral nomadic activity. Another perspective can be to see pastoral nomadic economy as an answer to challenging economic conditions, and in some instances pastoralism might have been the most viable economy to depend on.

Some would argue that despite an economic interdependence between pastoral groups and urban groups the cultural, social and political aspects of the communities are irreconcilable (Porter, 2002:6). Despite the interdependence between the groups, which is evident in the empirical data, this will in turn lead to hostility between the communities. This again is part of the view where pastoral nomadic groups are considered to be hostile and represent something chaotic. This view, together with several other problems in the study of pastoral nomads, needs to be reflected upon, and solutions must be presented.

2.3.3. Problems and solutions

Problems

In the processual tradition it is often assumed that there is a drive within people to become sedentary (Bernbeck, 2008:50). It is also assumed that the sedentary life is functionalized and monumentalized *unlike* mobile life. These assumptions are both wrong. There is no evolutionary ladder that leads to becoming sedentary and becoming sedentary is not an irreversible process. As already mentioned in chapter 2.2., pastoral nomadic economy can be an adaption of choice. It is also important to keep in mind, that not all adaption to or continuance of pastoral nomadic economy is based on the necessity to do so; it can simply be common social practice (Bernbeck, 2008:65).

One assumption that has affected the way archaeological research has treated the question of mobile groups is the assumption that mobile groups do not generate material culture and therefore cannot be traced in the archaeological record. This has been an obstacle for archaeological research on mobile groups (Anfinset, 2010:89). The better part of the material used by pastoral nomads is perishable material like leather and latticework which

under most conditions will not be preserved. The material retrieved is often ambiguous because it is not easy to separate material culture from pastoral nomads and material culture from other seasonal use by sedentary populations (Anfinset, 2010:90). To do so, one must emphasise distribution analysis, frequency of finds and quantity of finds. The archaeological research has much to gain from ethnographic studies at this point. Ethnographic, contemporary, observation of pastoral nomads show that the material remains they generate can easily be mistaken as generated by sedentary populations. Among the categories are permanent housing, to which they return based on a cycle, and small gardens for seasonal agriculture (Anfinset, 2010:90).

The challenge therefore lies in developing methods that are specifically developed or adapted to the study of pastoral nomads in the past.

Solutions

Roger Cribb was an advocate to consider pastoral nomads as a phenomenon, a system in itself and not to be fixed on the traditional study of the material artefacts (Cribb, 1991:1). In addition to encouraging archaeological research to look beyond traditional material studies, Cribb has contributed in establishing that mobile groups do generate material culture. He has presented a theory of three categories to which he ascribe the material culture generated by pastoral nomads:

1. Fixtures and portables – one considers the size, weight and function of the artefacts and based on that decides whether it is likely to be an object for one place/locality or to be carried to another location.
2. Durables and perishables – these categories refer to the material the artefact is made of. Durables are simply artefact that is preserved to the present, while perishables, that were probably manufactured in large quantities are not likely to be found in the archaeological material.
3. Valuables and expendables – the value of the different artefacts can be outlined through analysis of material and production. Products that required much time to produce, required advanced technology or were made of valuable materials, will be classified as valuables. These were most likely carried between places/locations while expendables were most likely left behind or thrown away. Thus, expendables that are also classified as durables are likely to be found in the archaeological material.

(Cribb, 1991:68-69).

An example of the utility value of these categories is the way in which they can be applied in the study of pottery. Smaller artefacts made of pottery, like for example drinking vessels will most likely be categorised as valuables and portables and therefore also durables. Larger pots for cooking and storing are articles for consumption and therefore expendables. Thus they become perishables, while the fragments of the broken pots become fixtures and durables that will in turn be traceable in the archaeological material.

Based on Cribb's categories of material culture generated by pastoral nomads seven categories in which the material culture that is traceable from pastoral nomads, can be divided:

1. Structures

Cribb claims that the pastoral nomads might support their tents with walls of mud-brick, floors and most often stone enclosures.

2. Corrals

Corrals could have been used to hold the animals while collecting their milk or wool. Maybe they were also used to protect the livestock from wild animals.

3. Excrement from the livestock

The excrement from the livestock can form thick layers in the stratigraphy (Cribb 1991:66) that can be traceable in an archaeological context.

4. Botanical and zoological material

This is one of the outcomes of the technological progress that has taken place in archaeology over the last few decades. The study of pastoral nomads has benefited from this development. The analysis of botanical and zoological material is crucial in the study of size of the herds and also the size of the tribes and can also determine where the groups moved and whom they were in contact with.

5. Water collecting systems and water storage

Cisterns, wells and catch arms constructed to collect rainwater and lead it to the storage is traceable in the landscape and is an indicator of where the pastoral nomads were present.

These structures are difficult to date, but can still be useful to some degree. This will be discussed further in chapter 4 of the thesis.

6. Burial monuments

Burial monuments can provide information of the religious and ideological thoughts in the mobile society, and also of identity and self perception. As will be mentioned later, burials can also be included in a political context, for example as a marker in territorial behaviour

7. Pottery

Cribb claims that it is likely that pottery was a part of the pastoral nomadic societies of the past. As the example of how pottery can constitute many of the find categories outlined by Cribb, pottery can be very valuable in the archaeological research of pastoral nomads.

(Cribb, 1991).

These categories have different positions in the archaeological material as they provide different information and their reliability is varying. The zoological material is useful in the study of any pastoral society as the species of the husbandry, the size of the flock, the age at which animals were slaughtered and so on provide crucial information of the size of the group, and the social organisation of the group. Further, the botanical material is the material that can help reconstruct the climate and environment and therefore help reconstruct the landscape from the time period in question. This is crucial to understand the movements of the mobile groups, and the social life and economic life of the group. The more traditional archaeological material like pottery, leather and textiles is a source of knowledge on culture including the social structures in the group, like gender and age. Among pastoral nomads, where social organisation cannot easily be traced in settlement analysis and artefacts, the burial customs can be an important provider of knowledge concerning social organisation (Porter, 2002:6-8). When construction of places and entities of hierarchical character is not present, the creation of ancestors is even more important. In a society like a pastoral nomadic society, where movement is the key factor, it is important to create a common ground to build an identity on. This common ground is often the creation of ancestors in a particular place and manner (Porter, 2002:6-8). Ethnographic examples show us that in pastoral societies, this often happens by including the deceased in a generalised group, making out a non-hierarchical ancestor group that is the basis for a group identity (Porter, 2002:8).

The categories mentioned above are partly general, but one must keep in mind that some of the categories are not valid in all areas, while other categories might have to be added in other projects.

Despite great progress in tracing and interpreting material culture from pastoral nomads, Sadr (1991) claims that the only way to study pastoral nomads of the past is to study it at a regional level and by applying methods that map out patterns of movement on a larger scale. To do this one must explore the role of landscape in archaeological research.

2.4. Landscape in archaeological research

In a study of pastoral nomads the landscape which the nomads move through and the places where they dwell, must be taken into consideration. Since nomadic people move through a landscape and set up camps at specific sites, a balance in the focus upon movement and dwelling is of importance. Whether the mobile group itself considered several places or the space itself as their domain, the landscape was important and therefore the landscape can provide useful information (Barnard, 2008:11 -15). One space can consist of different landscapes; the practical landscape of dwelling and grazing, the political landscape and the religious landscape. This section will in short terms outline the different aspects of landscape in archaeology.

2.4.1. Tracing the movement in the landscape

As mentioned, it is difficult to identify artefacts as belonging to pastoral nomads, and therefore distribution analysis, frequency of finds and quantity of finds are important.

To understand the broader pattern of activity including the interaction between people and landscape is decisive and this can be studied through tracing routes. It is to a large degree along the routes that one finds the landmarks that show ownership over resources and association to special places (Barnard, 2008:12). Water resources, distribution of artefacts and distribution of monuments, for example burial monuments, is an indicator of how and where the mobile groups have been present.

To be able to use landscape analysis, one must reconstruct the past climate. The challenges concerning this were discussed in the previous section of this chapter. Another challenge is to trace the ideological and symbolic elements that have influenced the way the mobile groups have exploited and shaped the landscape (Barnard, 2008:13).

2.4.2. Territorial behaviour - need of resources and creating an identity

The need to control territory is part of any society as it is a response to the individual's need of the basic resources required to live and the collective need to have a locus and a place for the collective memory (Smith, 2003:153). Territorial behaviour based on the need of resources can occur both in times and places of shortage of resources as well as in times and places of abundance of resources (Wossink, 2009:39). One might assume that territorial behaviour occurs in time of resource shortage. A more likely scenario is that in times when there is lack of resources, none of the scarce resources will be used in the efforts its required to mark territory; the profit gained by marking territory must exceed the resources it requires to mark territory. Shaping a landscape and marking it with monuments is a common phenomenon in areas where different groups with conflicting interests are present at the same time. Visible monuments like the cairns establish territorial boundaries and can be an important element in consolidation of power (Porter, 2002:1).

Religion and spirituality is clearly part of the burial ritual, but the size, shape and place in the landscape also show that the cairns served as territorial markers (Driscoll, 1988:228). It is also common that pastoral nomads create focal points in the landscape in which they reinforce their ties to the ancestors that will create an identity and ties to the landscape and to each other (Wasse and Rollefson, 2005). This phenomenon has a religious aspect and a socio-political aspect. The creation of ancestors is a religious practice, but will also have social implications, as it requires an administrative division in the group. Politically the creation of such a focal point in a landscape will imply control over territory. This burial custom therefore creates identity for a group by establishing common grounds both physically (by taking control over territory) and mentally (by creating a common genealogy) (Porter, 2002:25-27).

In clan and tribe – based communities such as pastoral nomadic societies often can be labelled; the sense of ownership over land is very different from the perception in the West. Unlike the perception of ownership over land that agricultural communities will have, pastoral and mobile people will not be concerned with individual rights to own land, rather a collective possibility to utilise resources in a land (Steadman, 2005:292). This sense of ownership will also to a large degree exclude political and utter control of an area (Steadman, 2005:292).

In the case of pastoral nomads, territory is often part of the basis that make out the identity (Porter, 2002:6-7). If a kin-group consolidate a relationship to a place by creating ancestors in the landscape, through mortuary practice, this place will through generations of

returning on a seasonal basis, become an important locus for the group. This in turn generates a sense of ownership of not just the structures, but the place in it self (Steadman, 2005:293). The relationship between space and place is in this instance relevant to explore.

2.4.3. *The space / place dichotomy*

The definitions of the terms space and place and the difference between them is of great importance in archaeological research that deals with landscape and mobility. Place is where people create meaning. Natural formations like topographic elements that stand out can constitute a place, when it is given meaning by people. Places are also often constructed by people who shape and reconstruct the landscape. Space is constituted by the relation between places and things (Tilley, 1994:17). The discussion evolving around this dichotomy is a product of the phenomenological “school”, that originated in the field of geography (Tilley, 1994:14). The discussion falls under the categories cognitive archaeology and spatial archaeology as well as social archaeology. The way in which the people of the past viewed their landscape is of great importance to get a better understanding of the landscape today.

“If space allows movement, place is pause” (Tuan, 1977:6). This quote from Tuan who has theorised the space/place dichotomy, emphasise how crucial it is for the study of mobile groups, to be aware of the theoretical and methodological concepts of space and place. It is important to keep in mind that these concepts are not necessarily explicit to people we study, yet they are very important analytical terms. For this thesis the relevance of this is to emphasise peoples ability and drive to create meaning in a landscape and also create places in a landscape for reasons of consolidation of land control. It is likely to believe that the lifeworld of the pastoral nomads consisted of space and place and the dichotomy between the two, to an even larger degree than with sedentary people. Nomads move in space and pause in the places. ”Were groups moving from place to place, or did they consider themselves inhabitants of one large space, the landscape through which they moved?” (Bernard and Wendrich, 2008:15). One must study the places, but also the space, the territory that was utilised, to make out the relationship between the sites (Renfrew and Bahn, 2001:191). This is not a question that necessarily has to be answered in order to study a pastoral nomadic society, though it is a question that needs to be considered.

There is a notion that space is more abstract than place (Tilley, 1994:15). Space becomes place when human thought, meaning, memory and symbols are attached to the space. Thus, a place is some times only a place in one lifeworld, between people who share the lifeworld, and not necessarily outside that lifeworld. This is often basis for conflicts and

can also be a challenge in archaeological research as it is difficult to enter the lifeworld of ancient people. What might appear as an empty space for us today, might have had meaning and symbols attached to it in the past and therefore it might have been an important place.

This meaning is often assumed to be of a religious and spiritual character. Certain features in a landscape, like rivers, valleys, mountains, special rock formations, prominent view and the intersection of these categories, is often acknowledged as bearers of a spiritual and symbolic meaning in the past (Tilley, 1994;Steadman, 2005:298). To identify a place is often done by surveying an area for features like these and often one will find that people have built their own physical environment in what has meaning to them at a cognitive level (Steadman, 2005:298). To be able to identify this physical environment it is necessary to study an area at different levels.

2.5. Summary

The theoretical perspectives that have been outlined here are all relevant for the study of the material that will be presented in this thesis. To be able to determine the origin, the purpose and the framework of the material in this thesis there are many elements that needs to be considered. The ability to trace social process in material culture and landscape is the basis of the thesis as the cairns and their position in the landscape will be the main contributor to the understanding of the area and the period. The theoretical perspectives on the study of mobile people are complex. The theoretical perspectives presented here will help identify a framework in which pastoral nomadic populations occur or/and increase. To further understand the greater picture emerging in the region during EBA one must apply theoretical perspectives concerning early territorial behaviour that emerges triggered by increasing trade and long distance communication. This chapter will be an important tool in the analysis of the material in addition to the methods used to draw information form the research area.

3. Methodology

3.1. Introduction

Traditionally, archaeological method is limited to choosing a location, excavating it and studying the artefacts collected (Fagan, 1994:99). This method is not suitable for a study area like the one in question, mostly because there is little material found in the area in terms of pottery, tools and buildings. The cairns and their position in the landscape contains most of the useful information and must be analysed. In addition it is necessary to compare the area to other areas in the regions where more extensive research has been conducted. This chapter will describe the fieldwork that has been conducted and outline the methodological tools that will be used in the interpretation of the material.

3.2. Fieldwork

The fieldwork conducted for this thesis took place in April and May 2009. The fieldwork was primarily a surface survey based on visual recognition. There were two teams; the historical team and the pre-historical team. All structures were surveyed and plotted on a GPS; in addition the structures and sites were described for the report and all were photographed. The most complex structures and sites were also drawn. The material of this thesis is a selection of the material that was surveyed by the pre-historic team. For the pre-historic team the visual recognition was important in the survey, as no previous research had focused on the cairns in the area and no written sources could reveal where the structures were.

3.3. Landscape analysis by visual methods

By utilising landscape analysis one might say that you are constantly facing a dialogue between physical frames and the human adaption to these frames. Humans adapt to and form the landscape according to their own ideology and thoughts at the same time as the landscape to a certain degree will affect the way people use the landscape (Gansum, Jerpåsen, Keller, 1997:18). Elements that often are limiting in a landscape: rivers, mountains, reefs and valleys. are also elements that are embraced by people and in a practical sense these elements can serve as territorial markers, outposts for guards, and natural safety. Rituals and symbolic meanings can also be applied to these elements in the landscape. In this instance the limiting elements become a part of the humans' formation of cultural structures (Gansum, Jerpåsen, Keller, 1997:18).

To recreate the vegetation and climatic conditions will in some instances be crucial to the study of the landscape, as forest, bush and water to a large extent will affect human

exploitation of the landscape. In chapter 5 an attempt to describe the past conditions in the research area will be presented.

What makes it *necessary* to include landscape in archaeological research are humans' inherent ability and capacity to observe and comprehend the landscape that surrounds us (Østerdal, 1999:3). What makes it *possible* for us as researchers today to explore the way people of the past perceived their surroundings is that the point of departure for all humans and their perception of landscape is that they themselves are the scale form which they measure (Tuan, 1977:34; Tilley, 1994:13). Some elements of humans' perception of the space in the landscape go beyond time and culture. This attitude must be applied with modifications and one should be aware that the perception of landscape changes through time and varies from one culture to another (Khattri, 1999:5; Østerdal, 1999:67). The approach to landscape in archaeological research has been marked by a tendency to only consider the practicality and rationality among the ancient people we study. By not considering the cognitive approach to the landscape, that most likely existed, the archaeological researcher loses an important element of the understanding of choices for settlement and utilisation (Steadman, 2005:289). Because of this one cannot limit the role of landscape in archaeology to surveying; it also needs to be taken into consideration during the interpretation of the material (Østerdal, 1999:3).

3.3.1. Technological tools in landscape analysis

The technological tools that has been used for this thesis are satellite imagery, Google Earth, GPS and Gimp.

First of all GPS was an invaluable tool during the survey in the research area. It enabled us to plot the structures we surveyed very accurately for later to plot the GPS points in Google Earth (GE). This made it possible to analyse the distribution of the cairns and their placement in the landscape easily after returning from field. The images that I have produced in GE have been applied to a program called Gimp, where additional information has been added to the image, producing useful illustrations for the presentation of the material. Most figures in chapter 5 are made this way.

When using a program like GE in analysis of the landscape and the cairns it is important to also use the report from the fieldwork. Important elements like view and topography are not easily reconstructed in GE. Accessibility is a keyword in analysing the distribution of the cairns. Topographic features like steep cliffs and large rocks are not always detectable in GE and it is therefore crucial to have thorough information in the report.

3.4. Ethnoarchaeology and Analogy

The difficulties met when studying ancient pastoral nomadic economies are often dealt with by applying an ethnoarchaeological approach. The movement of pastoral nomads in EBA, the interaction between nomadic and sedentary groups and the process from urbanisation to nomadisation (and back) can be understood by comparing with societies in modern times. In this case one is not constrained to compare with living societies, but also use written historical sources. In Near East archaeology this has been done to a large degree, especially the last 20 years (Prag, 1985:82). Ethnoarchaeology will not be used in this thesis and the comments on similarities between the ancient and modern routes, the ancient and modern campsites and the continuance in use of the cairns must not be mistaken as a fully ethnoarchaeological approach. Though it is related, ethnoarchaeology is a complex methodology in itself that requires much more thorough insight in the living society than the insight we at the moment have in the modern Bedouin population in the research area. An ethnoarchaeological study would definitely provide much relevant knowledge to a study of the research area of this thesis. The cornerstone of ethnoarchaeology, analogy, is inevitable in ethnoarchaeology, and analogy is used to a large degree in this thesis.

Analogy is often used in ethnoarchaeology and therefore the comparison takes place between a contemporary society and an ancient society, however, it can also be used to compare ancient societies. The basis is to compare the unknown with the known; if one ancient society is studied to larger degree than another, the well-known can be used as a source to interpret the material from the less studied society. There are different approaches to analogy, the one that will be mostly applied in this thesis is relational analogy that by the *Consise Dictionary of Arhcaeology* is defined like this:

Relational analogy is grounded in demonstrating either the causal relationship between the variables that can be observed or the relevance of comparisons between one situation and another by emphasizing common structuring, organizational, or economic systems within the societies concerned.

Darville, 2008:14

Analogy has been considered unscientific and unreliable through the history of archaeology, still the concepts has been applied to almost all archaeological interpretation (Darvill, 2008:14), and is therefore a well developed and highly applicable method in archaeological research today.

3.5. Methodological problems

Some of the problems one must be aware of when using the methods described above has already been mentioned in the different sections. There are some additional points that should be mentioned, for clarification.

3.5.1. Dating

The research project “Palmyrena – City, Hinterland and Caravan Trade between Occident and Orient” is in its beginning and has not yet collected samples for dating.

The attempts to date the cairns in this thesis is preliminary and based on the previously outlined methods of landscape analysis and analogy to other areas in the Middle East. The pottery that is presented in chapter 5 is preliminary dated by the authors of the reports from the season of 2009.

3.5.2. Research ethics

The use of ethnoarchaeology and analogy in the study of ancient societies is not unproblematic. As discussed in chapter 2, one must be careful not to see the pastoral nomads today as direct descendants from the ancient pastoral nomads, even though the empirical data, revealing great similarities, in some instances make this tempting (Prag, 1985:84).

It is also important to consider the relationship between the people utilising the area today and the landscape they move in, including the ancient structures. As will become evident in chapter 5 and 6, some of the material for this thesis still plays a part in the lives of the pastoral nomads in the area. This is evident in for example untouched burial cairns and recent Bedouin graves close to ancient structures. When working with this material it is crucial to keep in mind that these ancient structures can be religiously, culturally or socially important for people today and one should therefore be cautious when moving in the landscape to not disrespect the inhabitants.

3.5.3. The continued use of the landscape and the cairns

The landscape in question is still utilised by Bedouins today, on a seasonal basis. This affects the landscape and has many effects on an archaeological research project as well. First of all it is crucial to keep in mind the ethical issues of doing research in an environment like this. Secondly, it has advantages and disadvantages to the research process. One of the advantages is that the Bedouins today to a certain degree can indicate the movement in the landscape by the pastoral nomads of the EBA. Even though the landscape has changed to some extent, as outlined previously in this chapter, the main routes today are probably the same. The same

goes for choice of camping grounds, which to a certain degree can be similar to camping grounds from EBA. As already mentioned, the pass through Jebel Abyad, along Wadi al – Masek is still used to this day by the Bedouins. This is evident by a solid road where one can observe the Bedouin pick-ups driving through. During the field work in April/May of 2009 several Bedouin camps were established close to both entrances of Wadi al-Masek. In the southwestern end, the camps are located in Wadi Takara and in the northeast the camps are located in the al – Matna plain.



Figure 2. Modern camps in the research area (<http://www.hist.uib.no/antikk/dias/Palmyrenax.htm>)

One of the most interesting examples of the continued use of the cairns are cairn numbers 110, (114, 115), 116, 118. They are situated on a ridge going in an east-west direction in Wadi Takara.



Figure 3. Cairn 110, one of the untouched cairns

It seems like the cairns, unlike the rest of the 150 cairns that are surveyed, are not looted. Whether this is truly an example of continued use is not certain. If it is, the most likely explanation would be that they are road markers and landmarks and/or that they are still meaningful to the people utilising the area, on a more emotional level. They lie there, intact, giving an impression of how the landscape would have appeared in the past with the large, monumental mounds of stone against the horizon. As mentioned, the study of these cairns and why they are still in such a good condition, is a question for a different research.

The greatest disadvantages that come from the utilisation of the landscape by Bedouins today is the extensive plundering of the cairns. It seems as if the Bedouins follow the archaeologists and plunder the sites, rock shelters, rock cut tombs and cairns that are surveyed in the area (oral information, Anfinset and Meyer). The cairns' bad condition is not only due to plundering, but also the reuse of the material. The stones from the cairns are often used to build wind shelters and animal pens, possibly also to hold down the tents.

3.6. Summary

The methodologies used in the work for this thesis consist of two parts: the field methodology and the methodological tools used for analysis and presentation.

In field a visual surface survey was conducted over a course of four weeks. Because of the methodological tools, like visual analysis, it was possible to use the natural elements of the area as guidelines for where to survey. Knowledge of how people can utilise and shape the landscape around them is helpful in this instance. Other known examples that is similar to our research area will be presented later. These areas form the basis of the analogy that is used to explore the research question of this thesis. Because of this, the use of analogy has been discussed in this chapter.

The cairns that make up the greater part of the surveyed structures is the basis of this thesis. To present and analyse the cairns the GPS data is fed to GE, and further Gimp is used to make the illustrations. Analogy is one of the main methodologies used to answer the research question concerned with dating the cairns and theorise their origin.

In an area like this research area the continued use of the landscape to this day represents great advantages and disadvantages that has been outlined in this chapter.

The research area in question has not previously been studied to any mentionable degree, despite the general interest in Syria among archaeological researchers. The following chapter will present the research history that makes up the framework for the research area.

4. Research History

The historical framework of Syria in the Early Bronze Age has already been presented in the introduction of the thesis. In this chapter I will elaborate on the geographical and historical framework of the research area, by presenting research that has been conducted in close vicinity to the research area and in the Jezirah. It is also relevant to mention how the focus in Syrian archaeology has been limited to certain areas of the country and therefore also to certain time periods and phenomena.

4.1. Earlier research in the research area

The research that has been conducted in the research area earlier has focused mostly on the Roman era. This focus is of course connected to the position Palmyra held during the Roman era; the research area contains up to several roads, forts and remains of villages that are indicators of the role the area played in transportation between Palmyra and the surrounding area as a part of the Silk Road. We know from several sources that in the Roman era the oasis of Palmyra flourished as a junction of traders and merchants. The archaeological material in the research area north west of Palmyra confirms this and it is evident from several military installations that the Romans put a lot of effort and resources in protecting water resources and trading routes (Meyer, 2009:124-126; Seland, 2010:61). In the Roman period it is likely that sedentary groups inhabited the research area. Several villages have been surveyed in Jebel Chaar and there seems to be evidence of a society where agriculture was conducted at an intensive level. The basis for assuming that agriculture was such a dominant part of the economy is that the villages are situated close to each other, about 3 – 5 km apart. This is typical of agricultural societies and it rules out the possibility for pastoral economy, as that would require more distance between the villages (oral information, Jørgen Christian Meyer, 20th of January 2011). Analysis of mud bricks from the villages show a large amount of pollen from domesticated barley, which confirms the theory of agriculture in the area (oral information, Jørgen Christian Meyer, 20th of January 2011). Still, it is likely that there was also a pastoral nomadic society inhabiting the area; the mentioned forts and other military installations can be an indicator of tension in the area between the people utilising the steppe and the sedentary population (Seland, 2010:61). At the same time it is not unlikely that the sedentary population in these villages, were actually pastoral nomads that became sedentary (Seland, 2010:60).

When it comes to the Early Bronze Age very little research has been done in this part of the Syrian steppe. However, research has been conducted in the Jezirah, in the steppe north of Euphrates. In these areas, that are part of the Fertile Crescent, the research has been focused on the earlier mentioned “second urban revolution”.

4.2. Research in the surrounding areas

4.2.1. *Syrian-Italian Mission west of Palmyra*

In the spring of 2008 a Syrian-Italian Mission conducted their first field season in an area west of Palmyra. The team consisted of members from the General Directorate of Antiquities and Museums of Syria and representatives from the Universities of Milan and Udin. They conducted a geo – archaeological survey of their research area. In the report from this survey they mention “funerary structures” or “megalithic stone structures” or “tumuli” (Cremaschi et al., 2008:6). The report mentions a possible dating to EBA IV based on finds of small pottery deposits connected to the structures, but the attribution to later EBA periods can according to the report, not be dismissed (Cremaschi et al., 2008:6). In the research area of the Italian project assemblages of lithics has been surveyed, mainly consisting of denticulate scrapers, encoches and bifacial gouges.

4.2.2. *El-Kowm*

El-Kowm is a region named after an oasis in the Syrian Steppe north east of Palmyra, close to Jebel Bishri.

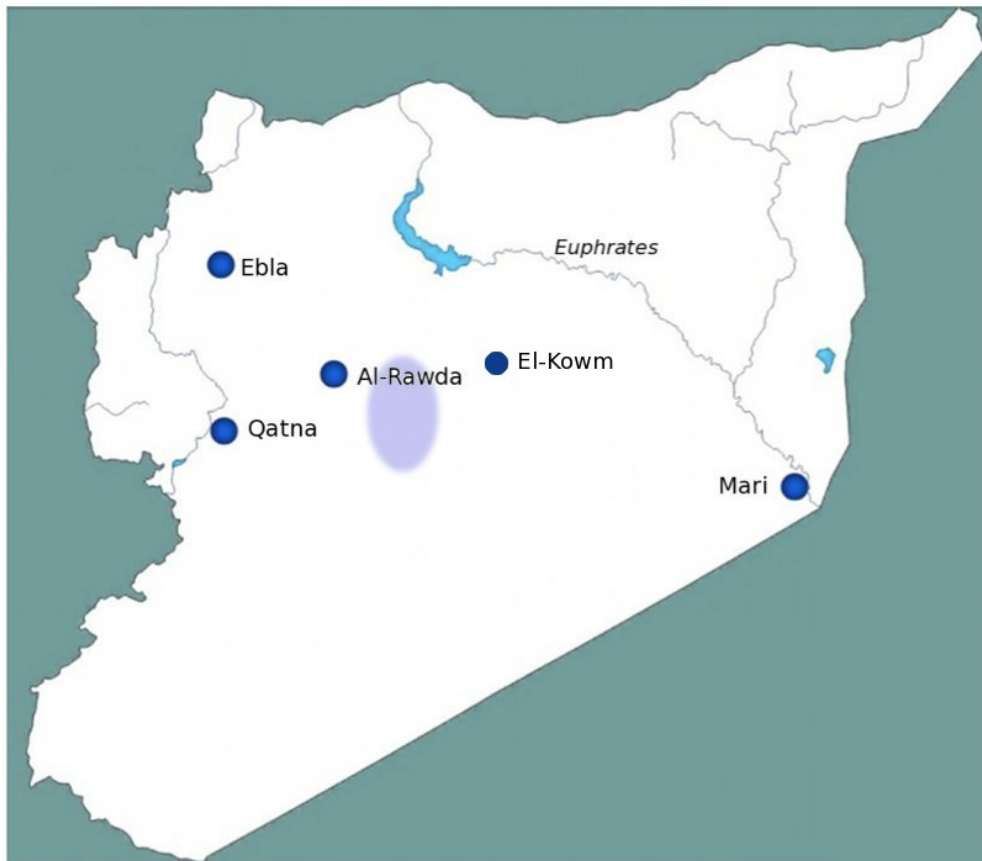


Figure 4. El-Kowm in relation to prominent EBA sites

It consists of two major sites, El-Kowm 1 and El-Kowm 2-Caracol (Anfinset, 2008:8). In the 80s the site was investigated by Cauvin and Dorneman and since 1999, a Syro-Swiss team has been excavating at El-Kowm (Anfinset, 2008:8). At El-Kowm the continuity in occupation of the site is evident; it is assumed that the site was occupied from the 8th millennium BCE, and is still in use today. The archaeological material points towards permanent settlements in the El-Kowm area, a theory made likely by the presence of year-round water sources in the area. Nomadic pastoralism is also evident in the El-Kowm basin, especially in PPNB (Anfinset, 2008:10). The location of the site makes it likely to assume that El-Kowm has had a place among pastoral nomadic groups in the Syrian steppe also in EBA. Historical sources tell about a battle in the Jebel Bishri area, including the Sargonic king Sharkalisharri and what has been interpreted as pastoral Amorites around 2200 BCE (Akkermans and Scwharts, 2003:278).

4.2.3. The Jezirah

The Jezirah and the area surrounding the Euphrates in general, has always been in the spotlight in Syrian archaeology. In the third millennium BCE this area had the highest density

of urban centres in Syria. The cities of Ebla and Mari (see fig. page 6) has been in the spot light due to the strong centres they were in EBA and the very large archaeological material at the sites.

The texts found at Maria and at Ebla provide much information on the relationship between sedentary and pastoral groups and the impact this has had on the development of the cities. From Ebla we know that the dependence on pastoral nomadic groups as partners in trade were invaluable; this relationship provided Ebla with several commodities, the most important being wool (Østhus, 2009:65). The commodities that the pastoral nomads got in return were agricultural products such as wine, olive oil and corn as well as metal for production and prestige goods that in turn were part of the social organisation of the pastoral nomadic groups (Østhus, 2009:65). This is one of many examples of how pastoral nomads were part of the networks of trade through the whole region of the Near East during the Bronze Age. As these texts are not neutral records, but only portraying the period from the view of the urban areas, a growing interest in studying the archaeological material connected to the pastoral groups has emerged.

Anne Porter's work (2002) in studying the mortuary practices along the river Euphrates in the third millennium BCE gives an excellent insight to the use of burial practice in the pastoral societies.

Ebla is among the most researched centres from EBA. Mortuary practices around Ebla can indicate that a tension between the urban elite and the traditional pastoral society resulted in the construction of large mortuary monuments by the pastoral society (Porter, 2002:27). This marked not only territory, but through creating a common ancestry it was also an act in defending the traditional socio-economic organisation of the society (Porter, 2002:27).

It seems like the relationship between pastoral nomadic and urban sedentary economy is of a cyclical nature in this region in EBA. The pastoral community plays an important part in the consolidation of a centre, both by becoming sedentary, but also by providing produce from the hinterland and contributing to trade (Porter, 2002:27-29). When the emerging urban elite increases and consolidates power, the tension between the groups intensifies. When parts of the pastoral community distance themselves from the cities, the cities might fall (Porter, 2002:28-29).

4.2.4. Early steppe land urbanism – the example of Al-Rawda

Later research shows examples of urban centres occurring in the marginal steppe regions in Syria. One example is Al-Rawda, which has been excavated by a Franco-Syrian team since

2002. This is a tell that is situated about 70 km north-east of Qatna, beyond the 200 mm isohyet and therefore in an arid climate (Castle and Peltenburg, 2007:603). The many wadis and mountains in the area catch the rainwater and make it possible to conduct some sort of agriculture when the rainfall is sufficient. From extensive research conducted in the area it is evident that during the EBA IV the utilisation of the area was intensified and agriculture was conducted (Castle and Peltenburg, 2007:604). In the archaeological data this activity in EBA IV is also evident, as the excavations at the site reveals large and urban activity at the tell in EBA IV.

Similar examples of urbanism in steppe land is known from eastern Inner Asia, where it is interpreted as centres founded by empires to function as administrative, mercantile and military centres (Castle and Peltenburg, 2007:602). In the case of Al-Rawda this is not necessarily an applicable theory; it is possible that Al-Rawda was founded during a period where no central authority is evident in Syria (Castle and Peltenburg, 2007:602).

Based on the items found in Al-Rawda, the city held cultural connections to the Orontos Valley and Ebla and Qatna in the west. Al-Rawda was also involved in long distance trade with Mari.

The subsistence of the centre was varied and might have included arboriculture as well as agriculture, but the principal subsistence seem to have been pastoralism; several structures like large kites and corrals has been dated to EBA IV and therefore interpreted to be part of the herd management in the area (Castel and Peltenburg, 2007:610-611).

Whether Al-Rawda, and similar centres in the region, was founded as an initiative from central powers to consolidate trading routes and land control, or it was a gradual sedentarisation by pastoral nomads in a process of increasingly complex economy, is not certain. It is also important to consider each case for itself and not assume that the sites share the same point of departure (Castel and Peltenburg, 2007:611). What is certain is that pastoral nomads was present in the region and held a strong position in the economy of the urban centre. That position must also include some sort of power as they controlled the routes of exchange and communication.

A similar “pulsating” pattern of settlement and utilisation of the steppe region that is evident in the Negev and Sinai, is also evident in the Syrian Steppe south west of the Euphrates. This is a pattern that is detectable from the EBA, through the Hellenistic, Roman and Byzantine periods (Castel and Peltenburg, 2007:611).

4.3. A short critique of the focus in Syrian Archaeology

The dry deserts and the steppe that are deficient of resources have, compared to the Fertile Crescent and the Levantine coast, been neglected when it comes to archaeological research (Tosi, 1986:462). Especially little research has been done concerned with the prehistoric periods in these areas. The main reason for this has already been discussed in chapter 2. The presumption that pastoral nomads do not generate material culture that can be traced in archaeological research is of course an explanation of why this kind of research has not been conducted. The presumption that people could not live in these areas was also widespread. To accept the thought of pastoral nomadic groups adapting to such hard conditions is difficult when one underestimates the resources in such a society. It comes down to prejudgement and presumptions by an academic group towards nomadic populations. This is of course a result of the way nomadic populations was viewed during the centuries when archaeology consolidated as a scientific discipline. It is also a question of interest; archaeology was for many centuries preoccupied with the monumental buildings and impressive empires of the ancient world. To realize the impressiveness surrounding large populations utilising the most marginal areas of the Middle East and administering building of huge stone monuments is to open up for many interesting and useful studies that in turn will contribute to a greater understanding of the region.

4.4. Summary

Syria has for many centuries been researched concerning all epochs of human occupation in various parts of the country. The focus has been upon more fertile areas like the land surrounding the Euphrates and the Orontes River. Further the research has been mostly concerned with the large urban centres and the bureaucratic information and large complexes found there. The more marginal areas has been neglected and therefore also the time periods that does not coincide with the urbanisation processes has been neglected. Prejudgement towards mobile peoples and lack of interest in the less materialistic sides of history is the reason for this unbalanced focus in archaeological and historical research history. By studying the marginal areas, not only will a larger time span of Syrian history be revealed, but also the greater picture of the urban phases will be elucidated.

5. Landscape, climate and material – components for the analysis

By selecting which landscapes and what material to present, the analysis is already initiated. This chapter consists of a presentation of the components that, together with chapter 6, will be the basis of the analysis in chapter 7. This chapter will start out in a general manner, outlining the geographical framework of the research area, the Syrian Steppe. The chapter will then zoom closer to the research area and even further to a representative selection of material that will be the focus for further analysis. For clarification it is worth noting that the word *wadi* means river basin and the word *jebel* means mountain in Arabic.

5.1. Landscape and climate on the Syrian Steppe in the Early Bronze Age

In general it is a great challenge to trace past climate and climate change, but by using proxies like rising and falling lake levels, micro fossils and pollen, one might get an impression of the climatic conditions of the past (Wilkinson, 2003:19). The Near East is by geologists divided into several climatic zones, since the climate varies considerably between the different areas. The research area of this thesis is part of the Syrian Steppe that lies in a junction between different climatic regions. To the east is the Levant and it is from the dryer parts of the Levant that we can retrieve much of the climatic information transferable to our research area.

It is evident that in large parts of the Bronze Age, the Levant experienced a moister climate than today, and this assumption is to a large extent based on proxy data from the Soreq Cave near Jerusalem (Wilkinson, 2003:20). These data have played an important part in the study of climate in the Levant. The data are erratic and stem from the southern Levant, but are to some degree transferable to the research area. In these data it is evident that a change in climate occurred around 2000 BCE leading to a shift from moist climate to a dryer climate (Wilkinson, 2003:21). This change has been studied from many different perspectives. Some scholars claim that the mentioned climatic changes that occurred in the Near East around 2000 BCE brought the farmer and the pastoralists closer in a cooperation where the nomadic population gave the sedentary population a portal to long distance trade while the sedentary people could offer the nomads food types that had previously not been available (Wossink, 2009). This is one of the theories that make the study of climate inevitable for this study of the possible nomadic population on the Syrian Steppe in the EBA.

In the Near East there has been a degradation of the landscape, mostly the last 10 000 years, owing to extensive use by both pastoral and sedentary groups. During the third millennium, which makes up the chronological framework of this thesis, the degradation seems to intensify.

Syria is a complex country and consists of many different landscapes culturally, climatically and environmentally. In the northwest are the Mediterranean coastline and the border to Lebanon. Owing to the river Orontos, which runs through the Orontos Valley, the landscape is very fertile. The northern, western and eastern parts of the country are part of the Fertile Crescent, while the internal and southern parts consist of the Syrian Desert that stretches further into Saudi Arabia. The dry areas can be divided in two: the steppe in the north and the steppe in the south. The first is in the centre of the Jezirah which is surrounded by fertile landscape, owing to its location between the Euphrates and Tigris. This placement is the reason for the name Jezirah which means “island”. The other dry part is in southern Syria, where the northern part of the Syrian Desert stretches into Syria from Saudi Arabia. It is in this area that the research area of this thesis is located.

Today the Syrian Desert has an annual rainfall that varies between 50 mm and 200 mm, hence agriculture is not possible without irrigation systems. The area called the Syrian Desert is more correctly defined steppe or semi – arid desert. This means that some parts of the steppe can be cultivated through dry – farming or water management.

Steppe is a term applied to landscapes where rainfall is between 100 mm and 300 mm per annum (Wilkinson, 2003:18). In the concession area, which I will more specifically describe at a later stage, the rainfall varies on a very small scale. The height difference between the wadi bottom and the summits can constitute the difference between the possibility to dry farm and not (Anfinset, oral information 2010). The Syrian Steppe is very dry during the summer months, but during the winter some forms of vegetation like grass and shrubbery grow there as a result of the rainy season. A steppe is usually treeless, but trees can grow close to springs or along wadis, which is the case for the research area. Some fig trees grow in the area, as they are very robust and can handle the dry summers. The mentioned climatic changes in the third millennium might have affected also the region of the research area, but this will have to be further examined before one can conclude.

5.2. Presentation of the concession area

The concession area is part of the Syrian Steppe and lies northwest of Palmyra. It is 30 km wide and 120 km long and stretches northwest from Palmyra to Isriyeh (fig.5). The concession area is in many ways like the steppe in general, in terms of landscape and climate.

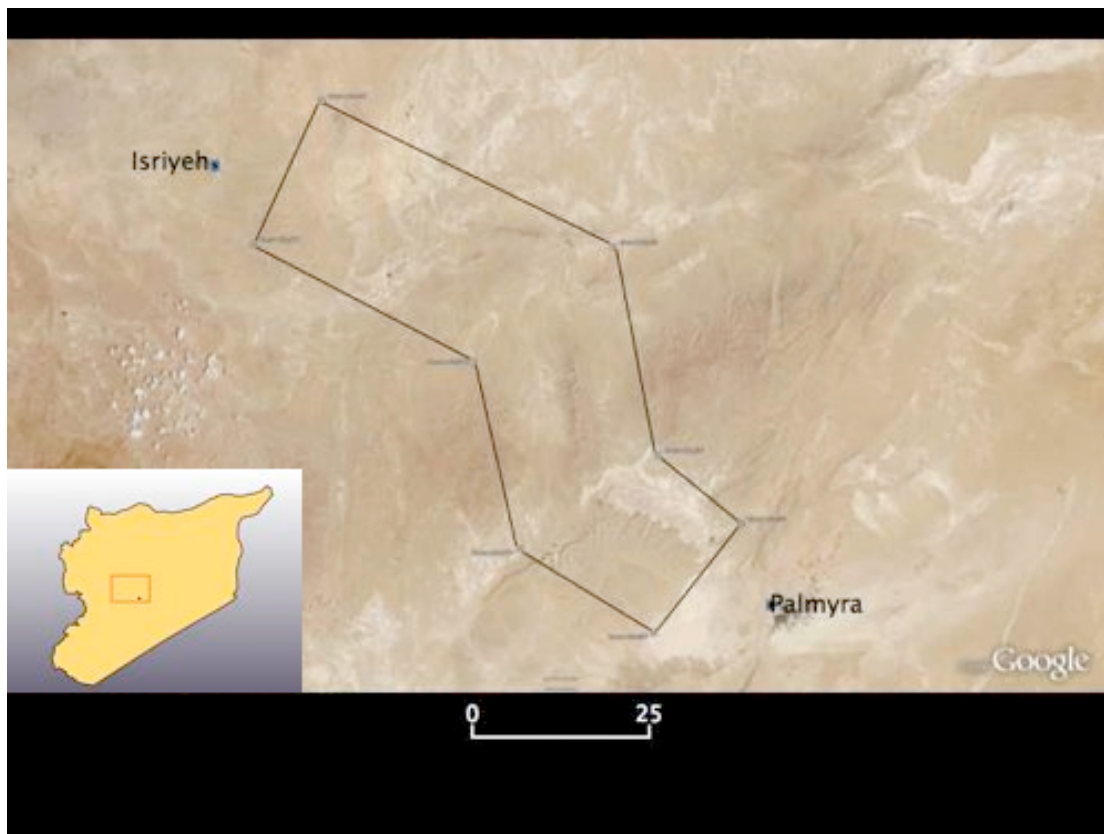


Figure 5. The concession area in context of Syria (http://www.org.uib.no/palmyrena/content/01_Project.htm).

5.2.1. Description of the landscape

In the southeast is Wadi Abyad, which means the white wadi. Wadi Abyad is the main contributor to the lake that lies furthest south in the concession area, at the bottom of Wadi Abyad. This is a rather large lake that fills up with water during the winter. The lake is the main source of water for the Bedouins that inhabit the area during the winter season. The Bedouin activity in the area varies according to the length of the rainy season, and the Bedouins will not utilise the area if the winter is very dry. The mountain chain to the west of Wadi Abyad is Jebel Abyad. West of Jebel Abyad is a smaller wadi, Wadi Takara, that runs parallel to Wadi Abyad. To the east of Wadi Takara is another ridge, called Jebel Hammoz Jazal. The banks of Wadi Takara are steep to the east and to the west the banks are slightly sloping towards Jebel Abyad. In the north part of the Wadi Takara a large wadi takes a turn northeast and cuts through Jebel Abyad. This is Wadi Al – Masek, and during the dry periods this is a road, which is the only pass in the mountains between Wadi Takara and Wadi Abyad. Wadi al – Masek opens up towards an open plain called al – Matna, which is at the northwestern edge of Wadi Abyad. North of Wadi Abyad is the long mountain chain of Jebel Merah, and parallel with this chain, further west is Jebel Chaar, which continues west of the concession area. North of these mountains the concession area mostly consists of plains.

5.2.2. Structures

The concession area is clearly marked by structures from the Roman era (fig. 6) and the shape and location of the concession area is based on a search after a Roman route that went from Palmyra to Isriyeh. The activity of the area in Roman era has already been presented in chapter 4 and the section will therefore focus on the physical structures.



Figure 6. Overview of the focus area with the Roman fort and a Roman village.

Wadi al – Masek has probably been the main route of transportation and movement between Wadi Takara and Al – Matna from the earliest times humans occupied the area and serves this purpose also today. About two thirds (2,4 km) into the wadi a fort is situated, Twei-hina, that was first surveyed by Schlumberger in the 1950s. This fort lies in a road junction where the road that continues through Wadi al-Masek, leads to al – Matna and the road to the east leads to an open plain where the ruins of a rather large village, Shalala, is

located. There is a spring and a watchtower in close vicinity to Shalala, and these were also surveyed first by Schlumberger. The ruins of the actual village of Shalala were first surveyed by Jørgen Christian Meyer from the Palmyrena – project. Shalala can most likely be dated to the Roman era, as can Tweihiina.

West of the northern opening of Wadi al – Masek on the al – Matna plain a site has been surveyed, Bir al – Arfa. Bir al – Arfa was first surveyed as a site in 2008 by the Palmyrena project. In the season of 2009 a survey was conducted at the site and four rather large cairns were found, one of which contained a bead of copper.

Cairns built of stone is a prominent feature in the landscape, especially in the southern part of the concession area. The season of 2009 focused on the southern part of the concession area, where Wadi al-Masek and Jebel Abyad are central elements in the landscape. It is in this southern part that most of the cairns that are the focus of this thesis were surveyed. The following section will present in further detail, the area that is referred to as the research area in this thesis.

5.3. Shape, size and position – a presentation of the surveyed cairns

In the southern part of the concession area, we have registered over 150 cairns on the wadi banks, the mountain ridges and on the slopes of the mountains (fig. 8).



Figure 7. Cairn 135

The picture above (fig.7) is of one of the surveyed cairns. As is evident from the picture they appear as large stone tumuli, all built of limestone. The cairns vary from 2 meters in diameter to 20 meters in diameter. The stones that are used to build the cairns are of various size between 20 centimetres to one meter. As will become clearer later in this chapter the cairns vary slightly in how they are constructed. Some have foot chains, chambers, strings and platforms attached to them and some belong to larger complexes.

It is necessary to ask the question of how likely it is that the rest of the concession area contains the same number of cairns. Preliminary research further north in the concession area has not yet resulted in surveying more cairns, and it is likely to believe that the area that was the focus of the 2009 season has a much higher density of cairns than the rest of the concession area. It has to be kept in mind that the distribution that we can outline today may not represent the whole picture. In theory, cairns can have been removed or demolished so that they cannot be identified. Even though it must be considered as a possibility, taking into account the activity in the area, it is not likely that this is the case in the concession area. The following figure shows the distribution of the cairns.

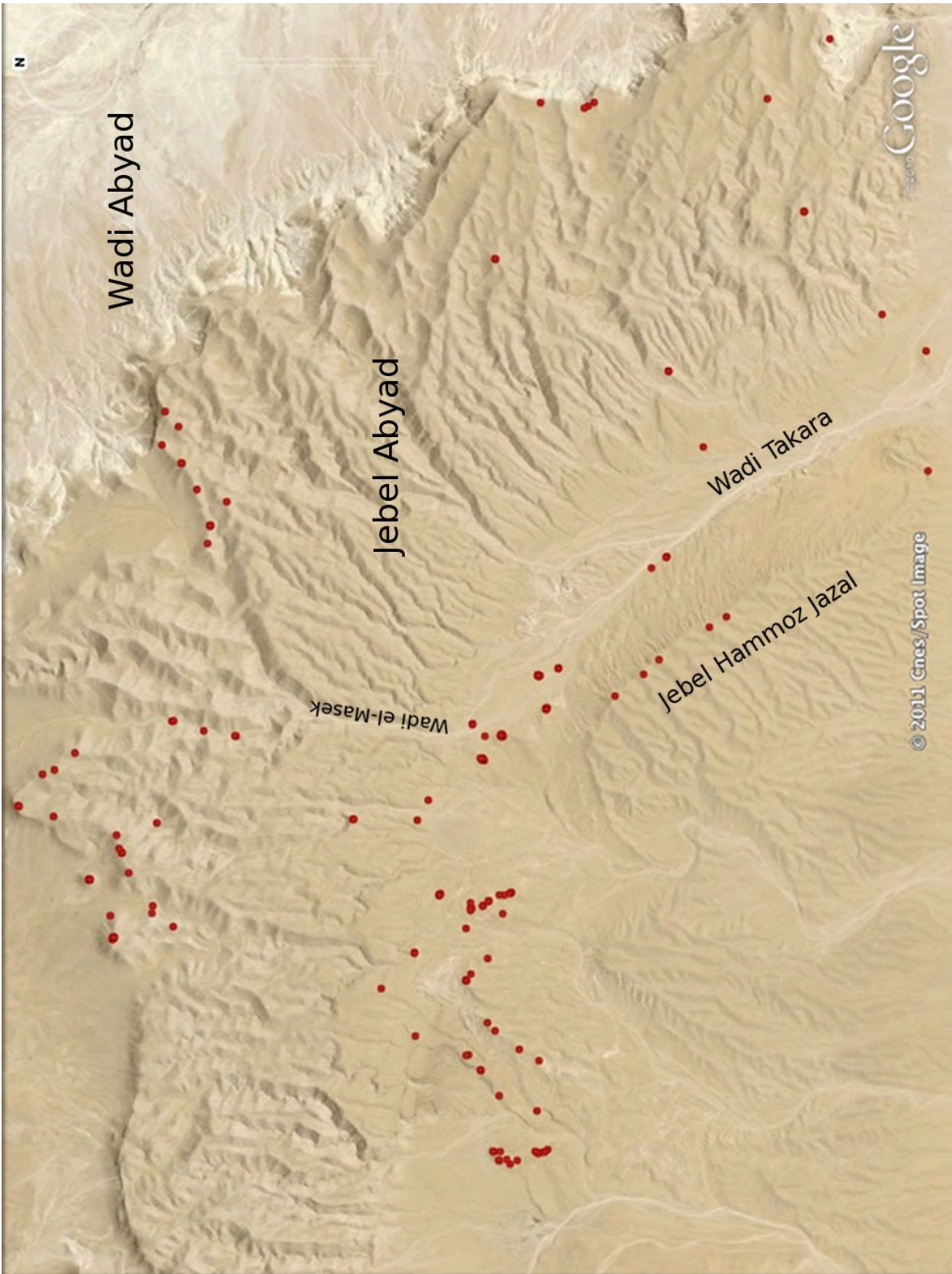


Figure 8. Southern part of the concession area with the 150 surveyed cairns.

The surveyed cairns are all, with few exceptions, in bad condition due to reuse of the material, grave looting and in some cases dismantling by bulldozers. In turn this constitutes a challenge in picturing the cairns as they once, most likely, were, as monumental tombs, marking the landscape. The original appearance of the tombs is evident in a few examples from the research area where the tombs seem to be untouched and preserved. These cairns are 110, (114, 115), 116, 118. To answer why these cairns are still intact requires a completely different study, and will not be dealt with in this thesis.

To further determine the original appearance of the cairns and to be able to use the cairns for analysis, we need to resort to analogy. Comparing the cairns to similar cairns is not just relevant to determine the shape and size of the cairns, but is also inevitable in the question of dating and further analysis, concerning who built the cairns. Because of the bad condition of the cairns, we cannot with certainty say if they are burial cairns. Typologically the cairns resemble burial cairns, but the same type of cairns has also been proven to be part of other kinds of rituals in connection to ancestor cults, besides burials and are therefore empty (Haiman, 1992:14). The question of whether the cairns are all burial cairns or not, is not necessary to answer in order to answer the research questions of this thesis.

5.4. A selection of cairns

5.4.1. Presentation of cairns according to categories

To make the study manageable I have chosen to focus upon a selection of cairns (fig. 9) that represent the area and the 150 cairns that are surveyed. The cairns in focus are chosen because they are representative of the whole body of surveyed cairns, by such criteria as condition, placement in landscape and variations like belonging to a group, belonging to a complex or lying alone. There are 71 cairns that will be in focus. The figure below shows the distribution of the cairns that will be in focus, the red dots representing each cairn. In instances where the cairns appear in groups very close to each other, the red dots will appear as one in the figure. That is why there are not 71 individual dots. Following is a presentation of the cairns according to relevant categories.

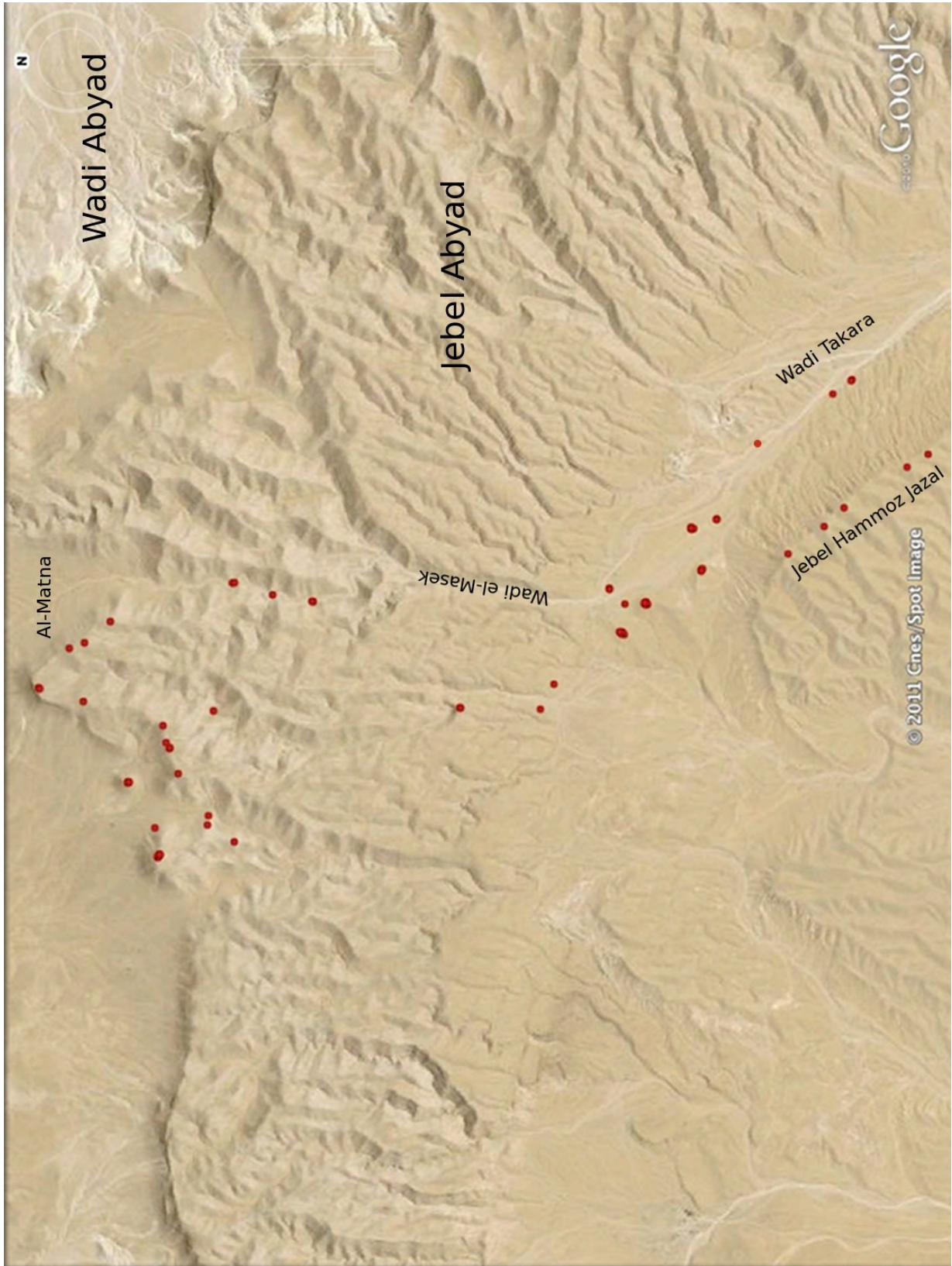


Figure 9. The selection of 71 cairns.

Placement in the landscape (fig. 10)

The placement of the cairns in the landscape can be divided roughly into two categories; whether they are placed on the banks of the wadi, or on the ridge of the mountains visible from the wadi. This seems to be the rule throughout the whole area. The cairns are either situated on summits that in its immediate surroundings are the highest point, giving the site good view standing at the cairn. This position also makes the cairns visible from a far distance. The cairns that are not situated like this are close to the wadis often on the slightly sloping banks of the wadi or on small elevations that will appear as small “islands” when the wadi is filled with water. From figure 6 it seems that the cairns are evenly distributed on the summits and on the wadi banks.

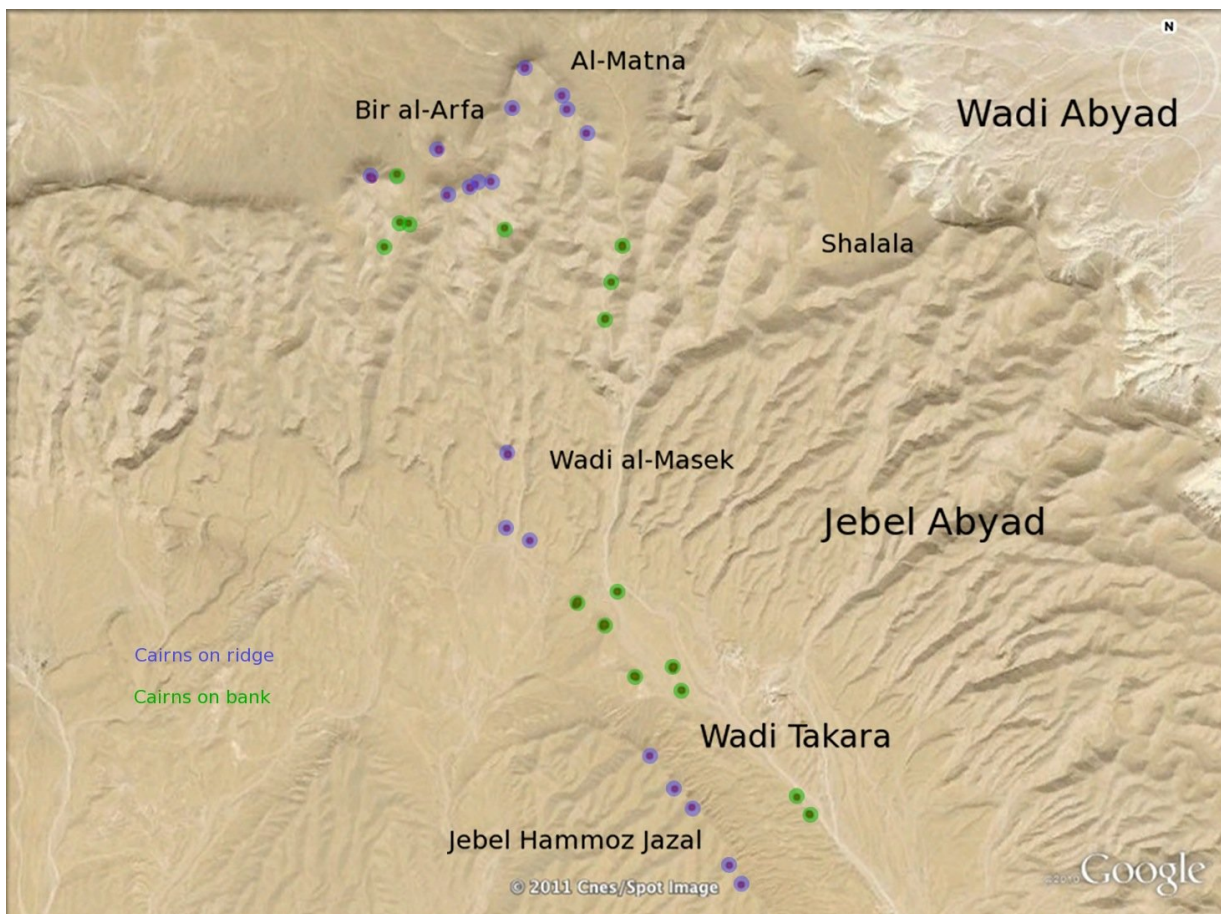


Figure 10. Overview of distribution of cairns: Wadi bank or ridge.

Single, pair or group (fig. 11)

It is evident from figure 7 that single cairns occur more often than cairns that appear in pairs and in groups. Still, some of the groups are rather large and the number of cairns lying in groups and the number of cairns that are single or in pairs are not that different. 33 of the 71 cairns are in groups, the largest consisting of eight cairns. 16 of the 71 cairns are in pairs, while 22 of the 71 cairns are single.

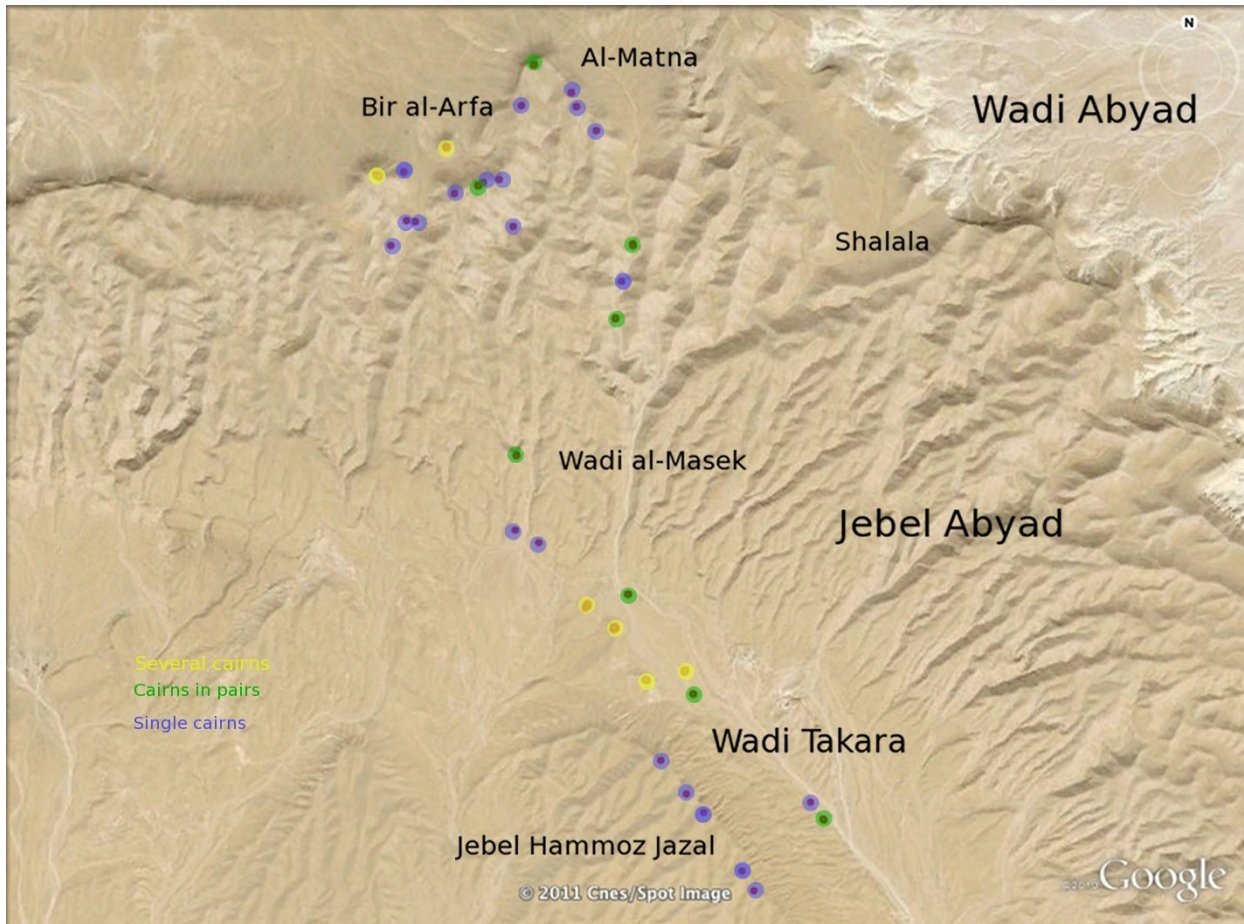


Figure 11. Cairns according to three categories; single, pair, group.

Complexes

Some of the cairns are part of a complex. Being part of a complex will in this instance mean being located in close vicinity to structures like walls and platforms. Some of the complexes are more elaborate than others. There are six complexes among the 71 cairns, and 23 of the cairns are part of a complex. There is one cairn (33) that is single and appears to be part of a complex, while the rest of the complexes are connected to the cairns that are in pairs or large groups; eight at the most. It can seem as if the complexes are mostly situated where several wadis meet, while some of them are situated on higher elevations overlooking the major wadis. But the ridges are low and there are no complexes in the actual mountains or on the summits. There are no complexes in Wadi el-Masek, just along the much larger and wider Wadi Takara.

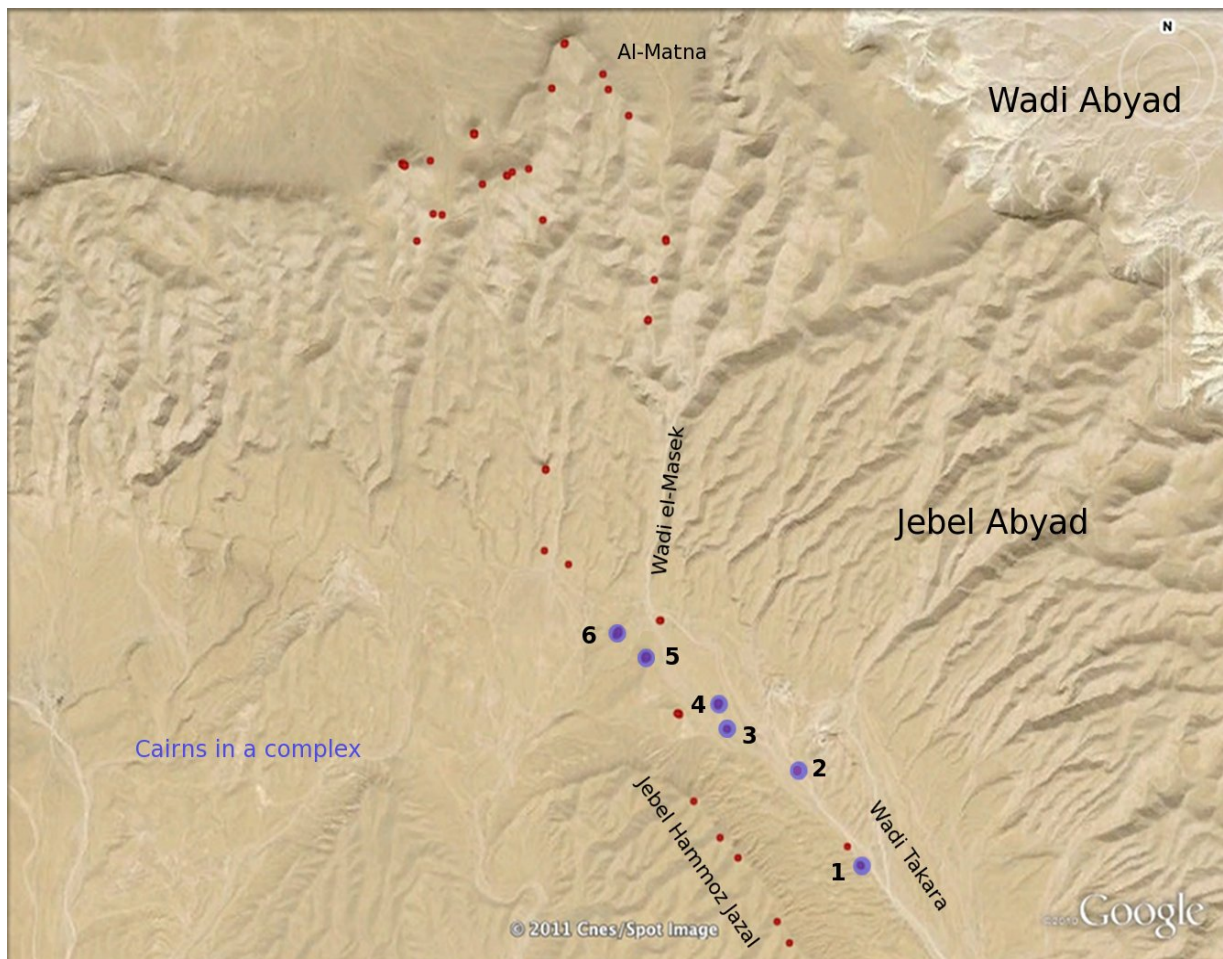


Figure 12. Cairns that are part of a complex, including complex number.

As mentioned, the complexes vary a lot in how they are constructed. For the purpose of describing the complexes further I have given them numbers (fig. 12).

Complex 1

This is a complex with two cairns (30 and 31). This complex has also got a site number in the report, site 25. This is one of the largest and most elaborate complexes in the research area. It is situated on the southwestern bank of Wadi Takara where several minor wadis join Wadi Takara. One of the cairns seems to have a foot chain and two outer circles. The cairns might have been interconnected, but this is not clear. In the southeast it seems like a path goes towards the cairns, narrow in the beginning and then widening up. The path is marked by two rows of stones situated one meter apart from each other. Close to the pathway there are six similar constructions each made up by 4-6 stones in a circle. The structures are about 1-1,5 meters in diameter and will, seen from above, resemble a flower shape. On the western side of the largest wadi there are several rows of stones making out seven pathways. There are also some other circular and linear structures on the site that are more difficult to identify. In this complex some pottery shards that can possibly be dated to EBA IV were collected.

Complex 2

This is the only complex which includes only one cairn (33). This complex is situated where Wadi Sheba meets Wadi Takara. The cairn is rather large, 11 meters in diameter and the large stones that make out the chamber are visible in the centre of the cairn. Close to the cairn, what appears to be a rectangular structure is visible. Three sides of what is interpreted as the outside of a structure is visible. The structure consists of several smaller stones, almost gravel. There are also recent Bedouin graves at the site.

Complex 3

This is another complex that includes two cairns in a pair (39 and 40). This complex is situated between two minor wadis that run into Wadi Takara. The cairns are interconnected and there is a sort of platform between them. There are several corrals attached to the cairns and also a structure that resembles a courtyard. In this structure there are several smaller structures. There is also close to this complex a corral in the wadi. Also in this complex pottery was collected that can be connected to EBA IV.

Complex 4

This complex includes five cairns (34, 35, 36, 37 and 38). It also includes two structures (A and B). Similar to complex 3, this complex is situated on a small "island" between two minor

wadis that run into Wadi Takara. The largest cairn at the site has strings leading out from it in two directions. There are also several platforms in the complex, one of them making out some sort of entrance to the largest cairn. There are signs of a more recent Bedouin camp at the site.

Complex 5

This complex is the largest in the research area and includes 8 cairns (17-24), many of which have foot chains and visible chambers. Unlike the previously described complexes it is not situated right on the bank of the wadi, rather on a small elevation overlooking the large wadis; Wadi Takra, Wadi al-Diwa and Wadi el-Masek.

The largest cairn (21) has a platform connected to it. Eight meters south of this cairn a terrace or wall is visible and two meters south of this again another terrace or wall is situated. There are also recent Bedouin graves at the site.

Complex 6

This complex has similarities to the previous complex 5. It includes five cairns (12,13, 14, 15 and 16) and is situated on a small ridge that overlooks Wadi el-Masek and a small village of houses that belongs to Bedouins. The largest cairn in the complex (13) has two chambers and a foot chain. It is also possibly connected to another cairn (12) which also has a foot chain in addition to what seems to be an inner circle.

Similar to complex 5, a wall or terrace was located about 20 meters from the largest cairns, in addition to several smaller cairns. Also there was a more recent Beoduin grave at the site.

Strings

Some of the cairns have strings attached to them. In some instances there are walls close to the cairns that resemble the strings, but that are not connected to the cairns. In these instances it is likely to assume that the strings have been attached to the cairns and have been disturbed. These will also be included in this category.

Some of the strings seem to go down slopes and if the cairns are close to a wadi the strings in some instances stretch towards the wadi.

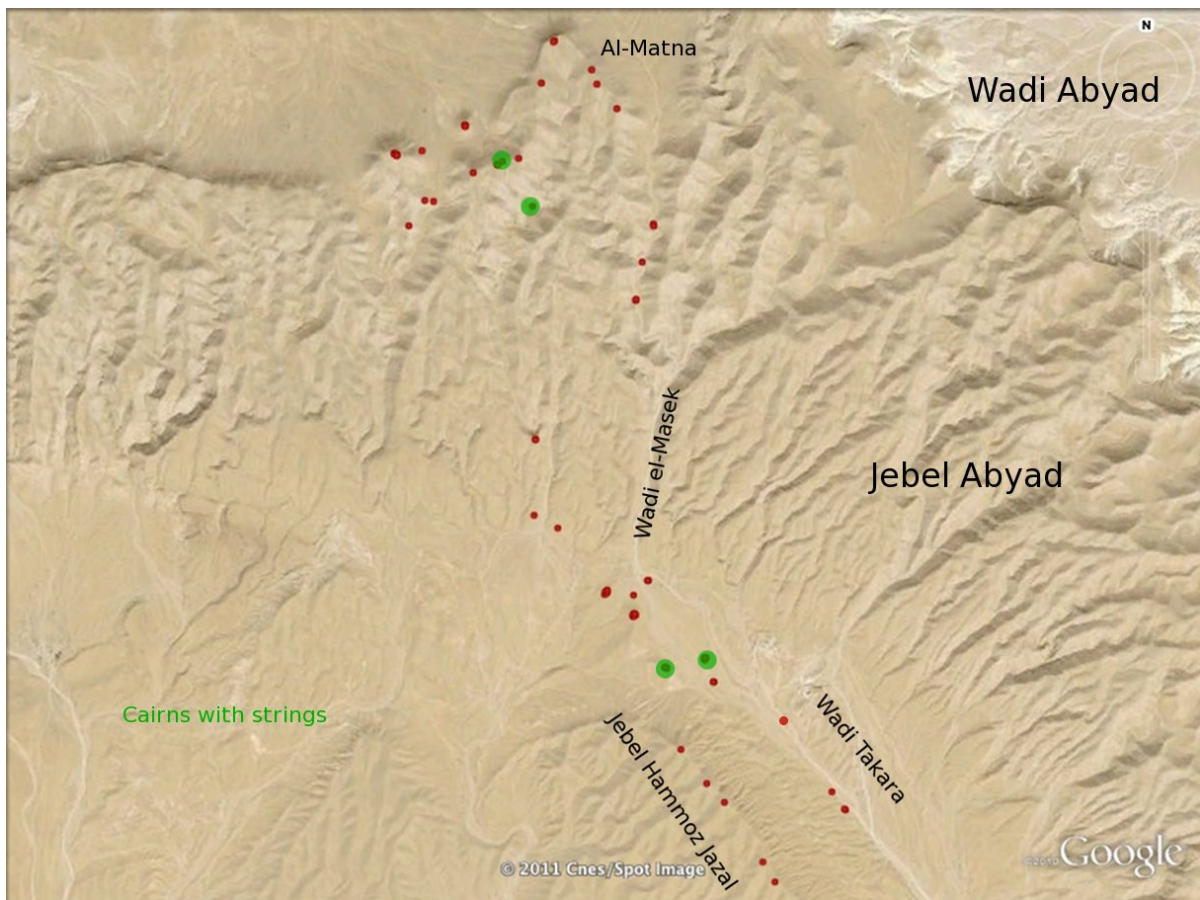


Figure 13. Cairns that have strings.

Foot chain

Fifteen of 71 cairns in the research areas have visible foot chains. It is likely to assume that more of the cairns have had foot chains that are not visible today because of the bad condition of the cairns, but this is only speculations. Both large and small cairns have foot chains and there both single, paired and grouped cairns have foot chains; therefore it seems that there is no pattern regarding which cairns have foot chains.

Close to one of the groups (cairn 128-134) several nicely dressed blocks were found, these can have been part of a foot chain or a similar structure. These are probably part of the cairns or a close by structure. Some of them have later inscriptions in Arabic and this might be an example of the continuity in the area.

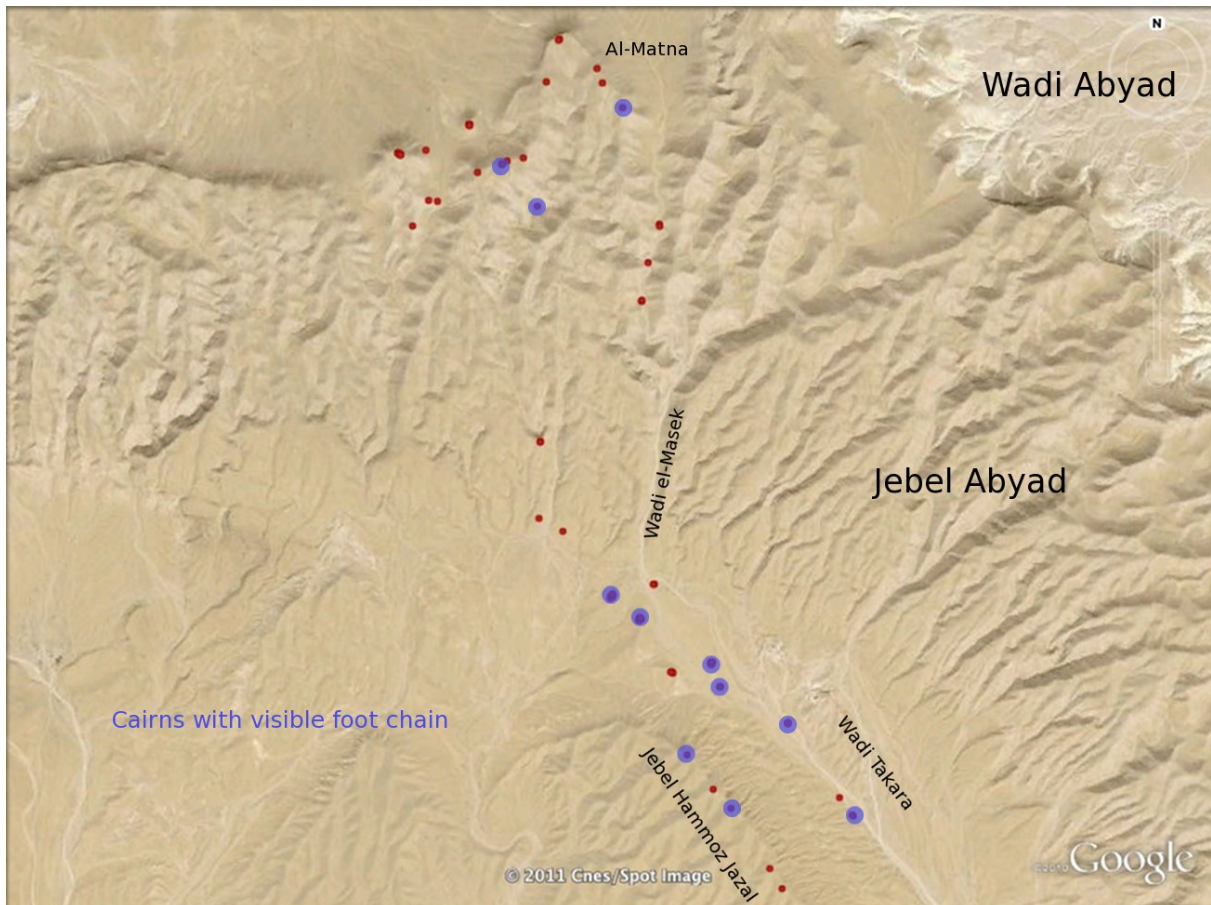


Figure 14. Cairns with visible foot chain.

Chamber

In eight of the 71 cairns there are visible chambers (fig. 16). These chambers are built with larger blocks making a rectangular cist in the centre of the cairn (fig. 15).



Figure 15. Chamber in cairn 13 from two different angles.



In two cases there seem to be two chambers in one cairn.

It is likely to believe that several cairns have had one or more chambers, but that this has been destroyed during looting. In some of the cairns larger rocks are evident in the centre of the cairn and these can belong to a chamber. The chambers are usually about two meter long and one meter wide. In one of the cairns with chambers (49) there was soil visible in the chamber.

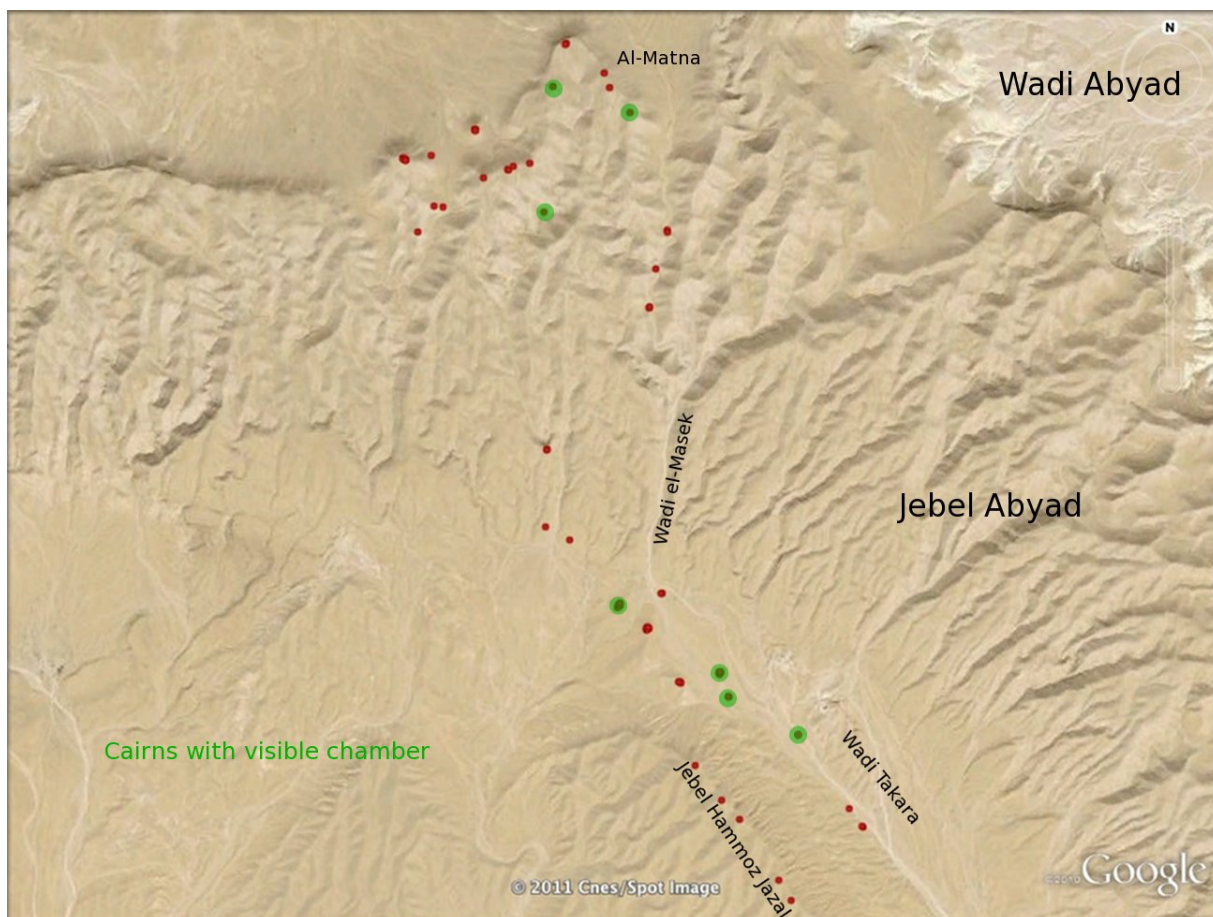


Figure 16. Cairns with visible chamber.

5.4.2. Collected material

In this section I will discuss the material that is collected and that is relevant for the research questions. All of the material collected during the season of 2009 is collected from the surface. No excavations have been conducted in the area.

There are vast amounts of lithics in the area. An extensive amount of flint is found in the landscape, both as a natural resource and as worked flint. The dating of the artefacts ranges from the Palaeolithic Period to the Iron Age. As already mentioned in previous chapters, tabular scrapers have been connected to pastoral nomadic activity. Both the production of blanks for trading and the utilisation of scrapers for wool production is known. Only two of these scrapers have been surveyed in the research area (e-mail correspondence with Anfinset, December 2010). Still it is relevant to mention that during the Italian Geo – Archaeological survey close to Palmyra, a project that will be presented in chapter 6, several scrapers were found.

Cairn 30 – 31	One shard of coarse water pottery, possibly plain simple ware.	Uncertain. Possibly EBA IV.
Cairn 39 - 40	One shard of plain simple ware.	Uncertain. Possibly EBA IV.
Cairn 50 - 51	Shards of plain simple ware pottery	Uncertain. EBA IV or roman-byzantine.
(Cairns 54 – 57)	Possibly plain simple ware pottery.	Uncertain. Possibly EBA IV.
(Cairn 70 – 72)	One shard of plain simple ware.	Uncertain. Possibly EBA IV.
Cairn 154	Six shards possibly of plain simple ware. One of them is a rim. Found inside cairn.	Uncertain. Possibly EBA IV.
Cairn 155	31 bronze fragments found in fill that was probably from the cairn.	Uncertain. Possibly BA.

Table 2. Material possibly connected to EBA IV.

The table above shows the finds that can tentatively be dated to EBA. The complete list of finds is included in the appendix of this thesis and in this list the continuity of activity in the area is evident as the pottery found is tentatively dated to EBA, Roman-Byzantine and Islamic Period.

It is relevant to mention that even though the possible EBA IV material is not numerous, it is distributed evenly through the research area (fig. 17). The figure below shows in which cairns the possible EBA IV material is collected.

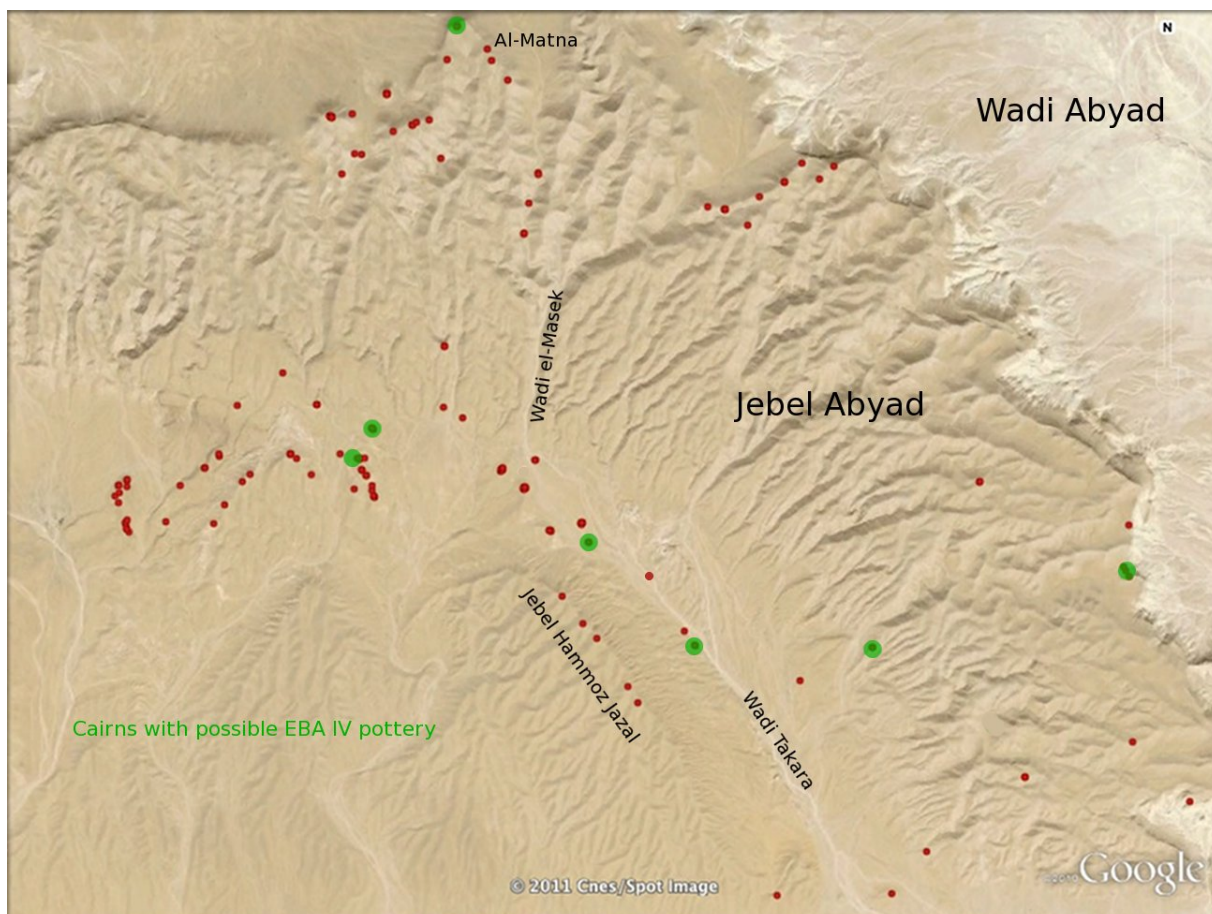


Figure 17. Cairns with possible EBA IV pottery close to it.

5.4.3. Drawing some lines to the rest of the area

It is relevant to emphasize that the 71 cairns that have been presented in this chapter are a selection of cairns. The cairns were chosen because they illustrate the phenomena that are also present in the rest of the cairns. The rest of the cairns are constructed in the same way with the same shape, the foot chains and chambers. Elements like strings, platforms and walls are found on several of the other cairns. The pattern of distribution and placement is also similar.

5.5. Summary

In this chapter the cairns have been presented in categories according to what is relevant for the analysis and the information presented here will be the basis of the analysis. The research area is part of the Syrian Steppe, which has been the object of several studies, thematically ranging from geo-archaeological studies from the Pleistocene Period to studies of the Roman era. The research area itself is an area that has not been studied since Schlumberger travelled there in the 1950s. This chapter has had a *micro* and *meso* scale approach to the material in the research area. It is also important to approach the study on a *macro* scale. It is necessary to

see the research area as part of the whole Syrian Desert, and a larger region with similar areas. The next chapter will outline a selection of relevant research from the region.

6. Similar landscapes and material

This chapter will place the research area of this thesis in a broader context. The chapter will present landscapes in the Middle East that are similar to the area by criteria such as topography, climate and surveyed material. This includes the Arabian Peninsula with Jordan and Saudi Arabia and Palestine with Sinai and the Negev.



Figure 18. Overview of the Near East.

What the areas that are presented here have in common with each other and with the research area are that they are defined as arid, semi – arid or hyper-arid areas with between 50 - 100 mm of rainfall per year. Like most of the Near East, these areas are not suitable for extensive agriculture and grazing must take place on a seasonal basis, as the high pastures are too cold in the winter and the lower pastures are too dry in the summer (Prag, 1985:82). Parts of the areas receive enough rainfall or are flooded annually and can therefore, through water management, provide small portions of land with some form of agriculture. As the research questions of this thesis explores the possibility of EBA-activity in the area, the focus will be

on EBA also in this chapter. Chronologically the description of the areas will be limited to the third millennium BCE and more specifically the last half of the third millennium BCE. It will also be restricted to presenting research conducted on pastoral nomads and desert burials, mainly cairn burials. Each section is built up like this; first a short description of climate and topography, stating the physical similarity to the research area, secondly a short introduction to the research that has been conducted in the different areas and the surveyed sites and material, concerning EBA including a short presentation of the interpretations that have been done.

6.1. The Negev and Sinai

The Negev in the southern part of Palestine and Sinai is connected in the south-west (fig. 18). Together these two areas constitute a desert of 70.000 km² (Haiman, 1996:1). The area is a desert with between 50 – 100 mm of rainfall per year (Haiman, 1996:1).

What characterises Palestine in the third millennium BCE is the intense urbanisation that took place and then the recession of this urbanisation at the end of the millennium (Prag, 1985:). For decades this period in Palestine was by archaeological researchers seen as a “dark age”, an intermediate phase between two great periods of urbanisation (Dever, 1980:35;Prag,1985:81). The chronology has been discussed extensively and the last centuries of the third millennium have been especially problematic. In this thesis EBA IV will be applied to the years 2500 – 2000 BCE.

Pottery connected to EBA IV in Palestine has been interpreted to have influence from both the indigenous Palestinian pottery from EBA III *and* pottery from late third millennium Syria (Dever,1980:38). As the theory of collapse traditionally has been applied to explain the EBA IV in Palestine, it was assumed that this was evidence for an intrusion from inland Syria. A less dramatic interpretation is that there was exchange of commodities between the two areas. Pottery that is assumed to have been manufactured in the Orontos Valley has been found in EBA IV context in Palestine. The possibility of pastoral nomads bringing luxury goods from Syria to Palestine through the steppe has been suggested (Dever, 1980:50).

In the Negev Highland and in the central and southern Sinai there are several large cairn fields that can be dated to the EBA (Haiman, 1992:31). It is especially in the Negev and Sinai that cairn burials are numerous. Excavations of these cairns have connected them to the EBA IV activity in the steppe (Dever, 1980:42). The research on the settlements and burials suggests that the people populating the Negev and Sinai had a mixed economy between pastoralism, trade and dry-farming (Dever, 1980:42).

It is evident that Palestine went through large socio-economic changes during EBA IV. The settlements (that in turn made out the now predominant tells) were abandoned and an adaption from an urban society with centralised political power, central control over trade and religious centres, to a more pastoral nomadic economy took place between EB II and EB IV. The shift that takes place is from an urban economy towards a more rural economy, which leads to decreasing population in the urban centres, and increasing population of the rural areas and the desert areas, including the Negev and Sinai. The change has traditionally been interpreted to be abrupt and dramatic. The theory that a collapse occurred has played an important role in the interpretation of the archaeological material from Palestine during the last 20 years (Dever, 1998:295). Today the picture is more nuanced and it is assumed that the changes rather took place through a long term process (Prag, 1985:81).

The activity in the desert seems to be of a cyclic nature. It is evident from an equation made from the total number of animal pens surveyed in the area, compared to the grazing land that was available, that there has been up to eight cycles of building, abandoning and rebuilding of the animal pens (Haiman, 1996:16). The two most prominent periods are EBA II and EBA IV, and there is a possible continuance between the periods (Haiman, 1992:15). In the Negev there was an increase in the number of settlements during EBA IV. Despite harsh environment, lack of land that could be cultivated and sparse water sources there seems to have been large activity in the interior part of the Negev during this period (Haiman, 1996:2). The greater part of the sites from certain periods are not located close to the major water sources; it is rather located in the driest parts of the desert (Dever, 1980:38). This seems to be connected to the route from Jordan to Egypt (Haiman, 1996:2). There seems to be two different types of settlement: firstly there are several permanent settlements and secondly there are temporary settlements that seem to be connected to seasonal use and therefore indicate pastoral nomadism (Haiman, 1996:23). The economy of this population was most likely, in addition to pastoralism, based on exchange of commodities, with copper routes going from Jordan to Egypt. In the EBA I-II it is evident that trade between the desert population and the urban areas in the Mediterranean region occurred (Rosen, 2008:123). The merchandise was mainly copper, but the nomadic groups also produced milling stones, chipped-stone tools and some pottery among others, that was part of the trade (Rosen, 2008:123). At some sites there seems to have been agriculture, which would have been possible in years of adequate rainfall (Haiman, 1996:23).

In the Negev one can clearly see parallels between the development of settlements and the pastoral activity. During the EBA one can see that the state level societies in the area at

that time in varying degrees were incurring the desert. It seems that pastoral nomadic activity in several instances flourished at the fringes of the settlements. In this way one can say that the settlement patterns mirrored the pastoral nomadic activity (Rosen, 2008:128). There are more signs of pastoralism in the temporary settlements than in the permanent settlements during EBA IV (Haiman, 1996:16). As animal bones are found in both temporary and permanent settlements this could indicate that the permanent settlements depended on the temporary settlements for meat (Haiman, 1996:16).

The research in the Negev and Sinai was heavily influenced by Dever from 1980 and onwards (Dever, 1998:282). He was one of the strongest advocates for the theory of pastoral nomadism in the desert as an explanation of the surveyed finds and the shift from EBA III to EBA IV. The discussions based on Dever's research and the opponents of this research, have contributed to a more nuanced view of EBA IV in the Negev and Sinai. There are theories claiming that the increasing pastoral nomadic economy in Palestine being a result of influence from pastoral nomadic populations coming from the Syrian inland at the end of the third millennium (Prag, 1985:81). The presumption that the pastoral nomadic activity was the result of invading and intrusive groups might overshadow the influence through peaceful, long-term development that pastoral nomads might have had on sedentary populations. Pastoral nomadism might have represented a solution to a difficult situation. The earlier mentioned theory of collapse has, through the question of the Negev and Sinai, become more nuanced. One can say that the urban centres of EBA III did not collapse, in the sense that they ceased to exist; they rather became more dependent on the rural subsistence, like pastoralism, which was more adaptable to the new challenges (Dever, 1998:291). This is an example of how an alleged "collapse" does not necessarily lead to a population changing the subsistence, but to the strengthening of one already existing group, in this case the pastoral nomads. The ties between this group and the sedentary one were also strengthened as they became inter-dependent.

6.2. Jordan

Similar to our research area, Wadi Sirhan in Jordan extends from an oasis. Its starting point is the Azraq Oasis in Jordan and it extends for 300 km in the southeastern direction into Saudi Arabia. The eastern margin of the wadi is defined by the basalt desert (harra). In the west there are plains of flint and gravel also containing several contributing wadis running in a south-western to north-eastern direction (Wasse and Rollefson, 2005:1). Just like our research

area and the Negev and Sinai, these areas receive between 50 – 100 of mm rainfall per year (Wasse and Rollefson, 2005:3).

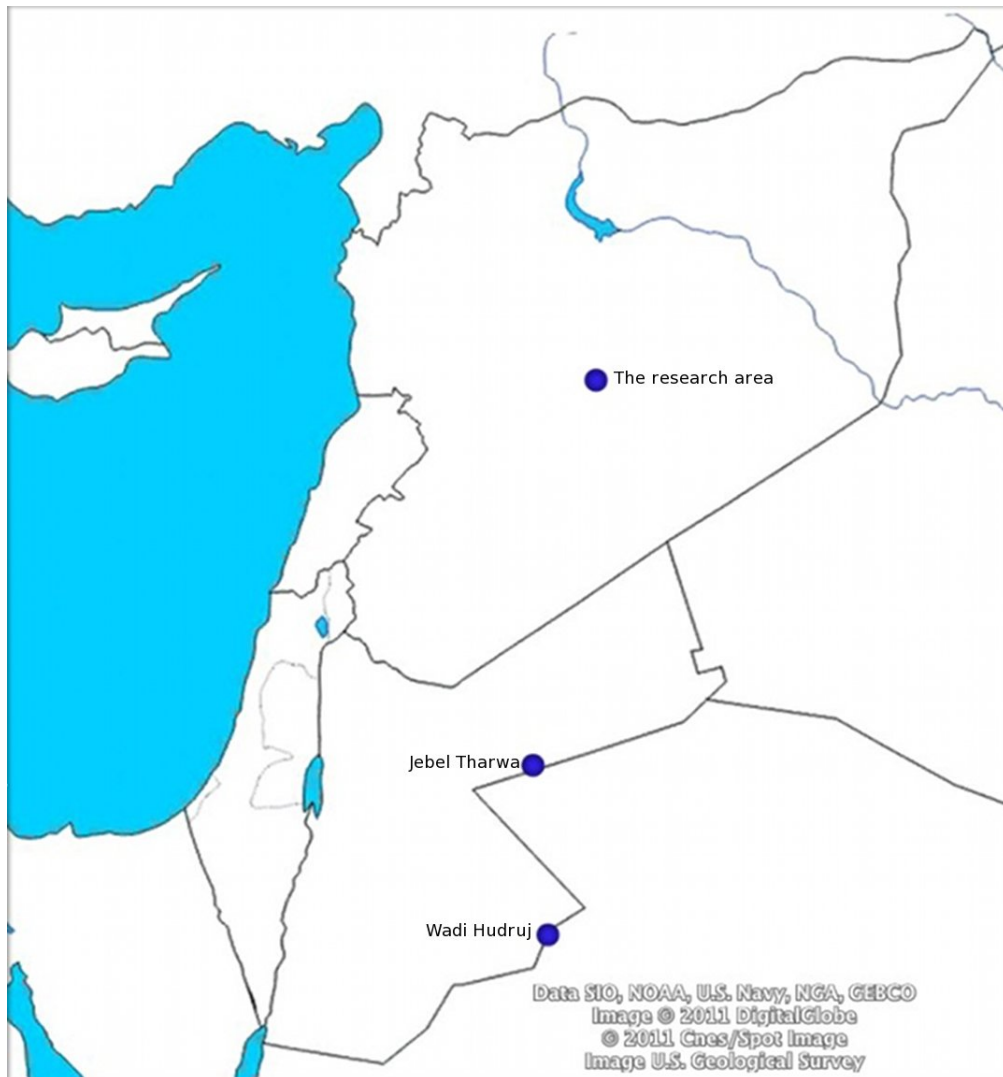


Figure 19. Overview of Wadi Sirhan and the research area of this thesis.

Similar to the plains of Wadi Takara, Wadi Sirhan basin was an inland lake in the Pleistocene Period. This makes it likely that Wadi Sirhan was an attractive place to dwell during the Lower and Middle Palaeolithic periods (Wasse and Rollefson, 2005:1), not unlike our research area. Also similar to our research area, Wadi Sirhan has been a natural transportation and communication route, and is until today one of the principal routes from the southern Levant into the Arabian Peninsula (Wasse and Rollefson, 2005:1).

The Wadi Sirhan has been the aim of a research project undertaken by Alexander Wasse and Gary Rollefson in collaboration with the Department of Antiquities of Jordan. There were two main sites of the survey, both located in the greater Wadi Sirhan basin; Wadi Hudruj and Jabal Tharwa. They also made some notes concerning other areas in the region,

where impressive Chalcolithic/EBA material was surveyed. According to the report from 2005 these areas were chosen simply because the areas are on the Jordanian side of the border, which makes it easier to get the needed permissions (Wasse and Rollefson, 2005:2). Some of the sites surveyed in the research project must be seen in connection with other sites on the Saudi Arabian side of the border, but these have not been researched in this project. In the Wadi Sirhan project a comparison of Wadi Hudruj and Jabal Tharwa has been important, as there is a difference in the intensity of the exploitation of the areas. This comparison is not relevant to this thesis, but because of the different nature of the two areas I will present them as two different areas.

Wadi Hudruj

Like our research area, the Wadi Hudruj, is still inhabited by Bedouins on a seasonal basis, primarily in the winter (Wasse and Rollefson, 2005:3). It is likely to assume that it has also been inhabited by pastoral nomads in the EBA. In some sites it is suggested that there are cleared circles among the flint debitage, interpreted to be tent circles. These have been dated to the Chalcolithic/EBA Period (Wasse and Rollefson, 2005:7).

Several cairns have been surveyed. Most of the cairns in the area are situated on small summits, on ridges or on the slope towards the wadi. Many of the sites that hold cairns have a great view, often 360 degrees over the wadi (Wasse and Rollefson, 2005:5-12). Other structures like corrals and kites have also been surveyed, in addition to rectangular platforms close to cairns. Building material has not been commented on to a large degree. Where it is commented, limestone seems to be predominant.

Natural flint occurs on the ground, as well as large quantities of worked flint (Wasse and Rollefson, 2005:9). The Wadi Hudruj survey area holds clusters of chipped stone tools in addition to the many structures (Wasse and Rollefson, 2005:5). Some of the material is assumed to be dated to Epipalaeolithic and Palaeolithic Periods, while some of the chipped stone tools have, based on the technology used to make them, been dated to Chalcolithic Period or EBA (Wasse and Rollefson, 2005:5-6). The production of tabular scraper blanks is evident in the area and Wasse and Rollefson argue that this production is connected to pastoral nomads. They assume that the nomads produced this for the population of better-watered agricultural settlements in the vicinity of the area (Wasse and Rollefson, 2005:10-11). In this connection the question also arises of a possible donkey trade through the steppe. This is a scenario to which an analogy in the arid areas of western Egypt is present (Wasse and Rollefson, 2005:10). Wasse and Rollefson suggest that they have identified at least one

camping site dated to Chalcolithic Period/EBA that has been used by pastoral nomads that were connected to the Jafr Industry (Wasse and Rollefson, 2005:8).

South of Wadi Hudruj

Close to Wadi Hudruj, the EBA presence is obvious at a site called Qulbaan Bani Murra. Animal closures, curvilinear and rectilinear structures, burial cairns, stone artefacts and pottery has been interpreted to be EBA material (Wasse and Rollefson, 2005:3). Qulbaan Bani Murra is a site consisting of ca. 80 graves that have been surveyed in and around Wadi Sahab. The graves are distributed along the slopes and the low summits that are overlooking the wadi (Wasse and Rollefson, 2005:5). The graves vary in how they are constructed, but most of them are built with rather large rocks set upright and according to the authors reminiscent of chalcolithic monuments in Saudi Arabia (Wasse and Rollefson, 2005:5). Qulbaan Bani Murra and al-Anab are by Wasse and Rollefson seen as connected to each other and to Kilwa and Jabal Tubayq in Saudi Arabia (Wasse and Rollefson, 2005:4). They interpret this to be the result of a growing mobile pastoral economy through the Chalcolithic period and into the EBA as a result of more sophisticated exploitation of milk products which made the dry areas easier to inhabit and exploit (Wasse and Rollefson, 2005:4). It is assumed that for example Qulbaan Bani Murra could have been a focal point, both socially and geographically, for the nomads that inhabited the area in the winter (Wasse and Rollefson, 2005:10).

In Sinai this kind of focal point is still evident among the Bedouins who live there today, as they gather seasonally around saint tombs (Wasse and Rollefson, 2005:10).

Jabal Tharwa

The Jabal Tharwa survey area lies close to the western end of the *harra* at the eastern side of the Wadi Sirhan and about 80 km from the Azraq Oasis (Wasse and Rollefson, 2005:12).

In Jabal Tharwa, similar to Wadi Hudruj, a continuance of exploitation from the Epipalaeolithic to Chalcolithic/EBA is evident. The structures that are surveyed include cairns, curvilinear and rectilinear structures and platforms (Wasse and Rollefson, 2005:14). Ancient campsites have also been surveyed in this area (Wasse and Rollefson, 2005:16). One especially large cairn has been surveyed, lying on a summit and containing human bones and a few artefacts that had recently been brought to the surface by plundering. This has by the authors been dated to Chalcolithic/EBA and been compared to Qulbaan Bani Murra (Wasse and Rollefson, 2005:17).

Summary and interpretation

Cairns seem to be the predominant structures in the landscapes of Jebel Tharwa and Wadi Hudruj. The cairns are not thoroughly described in the report from the Wadi Sirhan project, but most of them are described to be between 2 -5 m in diameter and 1, 5 m high. One of the most impressive areas is Qulbaan Bani Murra, a site with wells and many burials, but no sign of more permanent domestic structures. This is a cairn field and has been suggested to function as a focal point for the pastoral nomads in EBA.

It should also be noted that both survey areas show a clear continuance in occupation since the Epipalaeolithic Period through the PPNB, Late Neolithic and through Chalcolithic/EBA Periods. In both survey areas the cairns are accompanied by curvilinear and rectilinear structures and structures that resemble platforms (Wasse and Rollefson, 2005:14;).

An interpretation that has been considered by Wasse and Rollefson is that the area has been utilised by pastoral nomadic societies in the Chalcolithic Period/EBA. They claim that the technology of storing milk was possibly present and that there were trade between this population and the sedentary population in more fertile regions. The trade would include scraper blanks, herbs, ostrich egg shells, coloured stone and truffles to mention some “desert products” (Wasse and Rollefson, 2005:11). The theory of a pastoral nomadic society conducting trade by the help of donkeys is supported by evidence of the same type of trade in arid and hostile environments from the third millennium BCE in Egypt (Wasse and Rollefson, 2005:11).

6.3. The Arabian Peninsula

The Arabian Peninsula can climatically be divided into three zones; the northern belt of plateaus and mountains; the intermediate belt of steppe and desert; and the southern coast (Field, 1960:5). The northern belt can be seen as an extension of the Mediterranean province, while the intermediate desert belt includes Syria, the North Arabian Desert and most of Iran. The southern coastline consists of the southern part of the Red Sea, the southern coast of Arabia and the Persian Gulf (Field, 1960:5). In general none of these zones has much rainfall; just like in the Levant the rainfall is irregular, and the rainy season is in the winter.

Cairn burials were common on the Arabian Peninsula and are surveyed in all parts of the peninsula. The dating of these cairns is in many cases obscure (Rice, 1994:235). In Oman some surveyed cairns are tentatively dated to the third millennium BCE. These cairns consist of local flint and are often built on ridges, as to deliberately set them against the skyline (Rice, 1994:255). From Bahrain we know of a large number of burial mounds that have been

surveyed and excavated. These have been divided into two groups, where the Early type has been dated to ca. 2200 – 2050 BCE, these mounds have outer ring walls, inner ring walls and chamber covered by rough rocks and soil (Højlund et.al.2008:149). The mounds are distributed along wadis, either at slopes or on elevations overlooking smaller tributaries (Højlund et.al., 2008:152). The cairns are assumed to belong to herders that is connected to the villages of nearby arable land (Højlund et.al., 2008:153).

Between 1925 and 1950, extensive surveying was conducted through the Arabian Peninsula under the leadership of Henry Field. In his thorough report (1960) one can see that an enormous number of cairns was surveyed in the North Arabian Desert, in addition to kites, large basalt rocks and big amounts of flint (Field, 1960). The cairns were assumed to be from the Safaitic period, because of Safaitic carvings on some of the rocks in the cairn.

The cairns are located on ridges and close to wadis (Field, 1960:57-62). Field suggests that some of the cairns mark ancient camping sites (Field, 1960:74) and he also speculates in the presence of ranked tombs, claiming that there is an example where it seems as though a chief is buried with slaves (Field, 1960:86). Some of the cairns have other structures attached to them, like for example walls, that by Field is interpreted as retaining walls (1960:87). Field does not claim that all the cairns are burial cairns, and mentions alternative interpretations like boundary markers for grazing or heaps, building up as people add stones to them for religious purposes (1960:129).

Field sometimes sees the cairns as connected to the numerous kites in the area and based on this one can attempt to set a *terminus ante quem*: some of the kites are dependent on water levels for defence walls, and therefore these kites cannot have been built and utilised later than 2000 BCE, based on the known water levels in the area (1960:129).

There are also sites with large basalt blocks in an upright position (Field, 1960:57). These might be structures from focal points, which we have examples of from Wadi Sirhan, for example Qulbaan Bani Murra.

6.4. Summary

The overall picture that we can draw from the examples outlined above is of an area that in the shift between EB III and EB IV undergoes a socio-economic change from high-level social organisation to low-level organisation and pastoralism. In the theoretical chapter of this thesis several frameworks in which pastoral nomadism occurs on a large scale were presented. From the examples above it can seem as if many of these are applicable. In the Negev and Sinai pastoral nomadism seems to have been an “intermediate” socio-economic phase

between two urban phases (Dever, 1980:35;), a way in which the population in the area could prevent a collapse and sustain through challenging conditions. In Wadi Sirhan a pastoral nomadic economy with elements of production and trade is evident, giving an example of how pastoral nomadic societies interact with other societies in an increasingly complex region. The question to ask now is whether the research area of this thesis can be connected to pastoral nomads in EBA IV.

7. Cairns, Landscape and People – Exploring the Research Area

Previously in this thesis a theoretical framework, a presentation of the research area and an overview of similar landscapes in the region have been introduced. This chapter will, in accordance with the research question of this thesis, explore the possibility that the cairns are burial cairns from EBA and that a rather large pastoral nomadic economy was present in the research area in EBA. It will also explore the nature of the socio-economic change in EBA and the reason for the increased pastoral nomadic activity in the marginal areas of the Near East in the third millennium BCE.

The data presented in this thesis contribute to studying the research area at three different levels. At a micro level it is relevant to study the construction of the cairns in order to compare them typologically to the cairns in the extended region. At a meso level the placement of the cairns in the landscape, the distribution and the relationship between natural features and cairns will be further studied. This perspective allows us to further study the need of controlling land, the territorial behaviour that reflects the political conditions in the region in EBA. At a macro level, the research area will be put in a larger, regional context, enabling us to include this part of the Syrian steppe to the socio – economic shift in the third millennium BCE that is evident in the surrounding areas. In the following text these scales are underlying principles rather than structuring categories.

7.1. The physical landscape

In chapter 5 the cairns were presented according to categories that are relevant for comparison to the surrounding areas and also to the further analysis. Some tendencies and patterns in the material are obvious.

The cairns are all, with very few exceptions, circular. The size of the cairns ranges from 2 meters in diameter to 20 meters in diameter. The height of the cairns cannot be determined easily as they are nearly all poorly preserved, but there are some examples of cairns that are up to 2 meters high. Some of the cairns are single, while others appear in pairs or in groups of three or more. The largest group is of eight cairns. Some cairns seem to lie alone, while others can be single, but visible from other cairns and therefore connected by view.

While some cairns are simple in their constructions, others seem to be part of complexes, including walls and other cairns. A particular feature of many of the cairns are stone constructions resembling strings or arms that reach out from the cairn and platforms or

terraces close to the cairns. A general trend seems to be that the cairns are located close to the wadis and in the mountains.

As already established, Wadi al-Masek is the only pass through Jebel Abyad and this is only in periods when the wadi is dry. During the rain season it is not possible to pass through the mountain. Around the opening to Wadi al-Masek from Wadi Takara there are numerous cairns both on the banks of the Wadi Takara and on small ridges overlooking the entrance to Wadi al-Masek.

The research area primarily consists of two prominent, natural features: the wadis and the mountains. The surveyed cairns seem to be centred around these features, utilising them to create view between the cairns. At the same time the placement of the cairns has the function of connecting the natural features to each other and by this creating a cairn field. By creating such a field the landscape is domesticated. This shows authority over the landscape and by that also over other people.

In addition to the categories presented in chapter 5, there are some additional tendencies that seem obvious. Cairns that are single seem in some instances to be connected to other cairns by view, and this is also the case for some of the complexes that are connected to other complexes or single cairns.

Cairns 25 – 29 lie on a ridge on the west bank of Wadi Takara. The ridge has several peaks where the cairns are situated and they can therefore be seen from the wadi. When one is up on the ridge and close to a cairn, the other cairns can be seen as if they are placed in a row following the ridge. These cairns seem to be connected by view to each other, to the wadi and possibly to the cairns on the east bank of Wadi Takara and at the entrance of Wadi el-Masek. From the wadi bottom they can also be seen as a “line” of cairns, clearly marking the route to move in; along Wadi Takara.

Just to the west of where Wadi al – Masek cuts through Jebel Abyad, another, smaller wadi opens up. On each side of the wadi opening are cairns 46 and 47. Cairn 46 is situated about 100 meters from the wadi bottom, while 47 is situated about 150 meters from the wadi bottom. Cairn 46 is measured to be about 9, 5 meters north – south and 7, 8 meters east – west. They are both heavily disturbed, but they seem to be similar in size and shape. This together with their location on opposite sides of a wadi outlet, makes it plausible to see them as connected by view and therefore constituting a sort of portal for the wadi opening.

From most of the cairns that are situated on ridges and summits and that have a view, which is the case for most of the cairns, the natural features in the landscape are visible. The cairns at Jebel Hammoz Jazal have a view to both Yebel Abyad and also to Wadi Takara. The

cairns in Jebel Abyad have a view to Jebel Hammoz Jazal and to Jebel Chaar and Jebel Merah, as well as Wadi Takara and Wadi Abyad. This pattern of connecting the landscape into a field by constructing burial cairns in strategic places is one of several similarities between the cairns in the research area and the comparative areas described in this thesis.

7.2. Placing the material in a regional context - A comparative perspective

According to the research questions, the intention of describing the other areas in the region is to be able to compare the cairns from the research area to the other cairns in order to place them in a chronological framework. It is also to be able to include a formerly not researched area in a larger context.

There is no doubt that the material in our research area and the material in the other areas described in this thesis have great similarities. The basis of being able to compare the areas is the similar topography and climate; because of the physical similarities in the natural features and the similarities in the surveyed material, the areas must and can be seen in connection to each other. The area chosen for the construction of a cairn field in our research area is probably chosen because of the prominent natural features. This seems also to be the case at Qulbaan Bani Murra in Jordan and the cairn fields in the Negev highland and Sinai.

Both the distribution and placement of the cairns and physical appearance of the cairns are comparable. What is first of all striking is how the cairns are a prominent feature in the landscapes. The cairns are densely distributed and they are connected by view and therefore appear as a cairn field. The cairns are often placed on summits and ridges, making them visible from a long distance and often with a 360 degree view. In the research area the cairns that are not situated on summits and ridges lie on the slopes of the wadis and close to where routes probably went in the past and still do today. This placement in close vicinity to routes of transportation seems also to be the case in the other areas. A prehistoric example from the areas presented in this thesis is in the Negev and Sinai where the cairns are often found along routes that probably went to Egypt in EBA. The continuance of these routes is exemplified in Wadi Sirhan in Jordan, an area that held an important transportation route from the Arabian peninsula to the southern Levant in EBA and still does.

As mentioned the construction of the cairns and the complexes that the cairns are a part of, have similarities in the different areas. There are many elements in the complexes in

our research area that seem to be similar to the cairn fields of the Negev Highland.

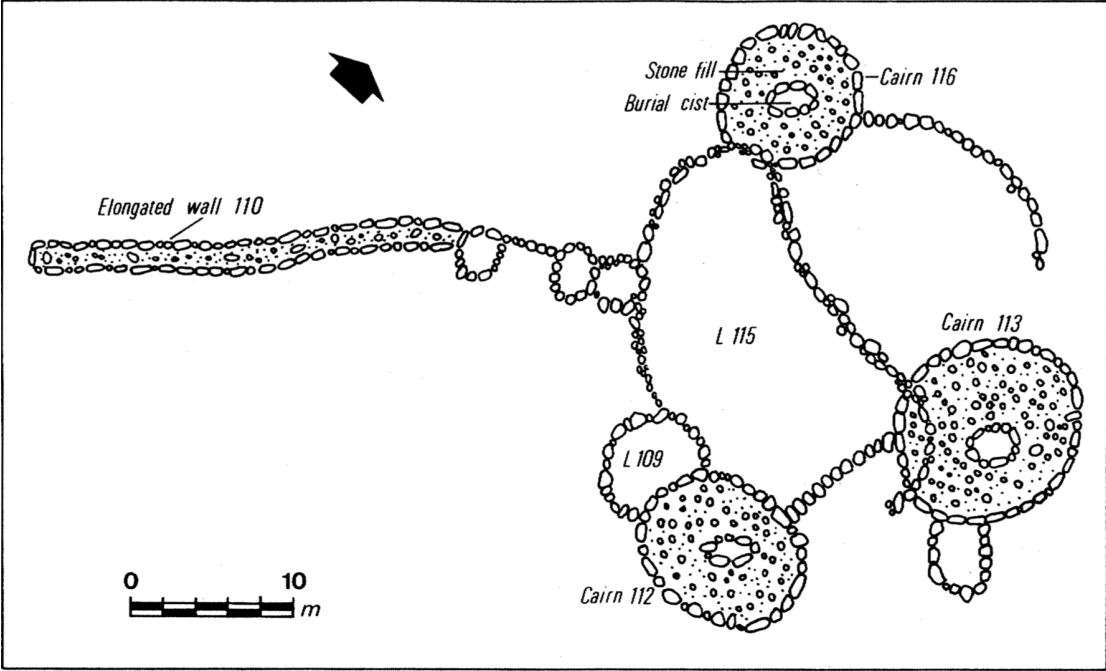


Figure 20. Cairn complex from Nahal Mitnan, the Negev (Haiman, 1992:33).

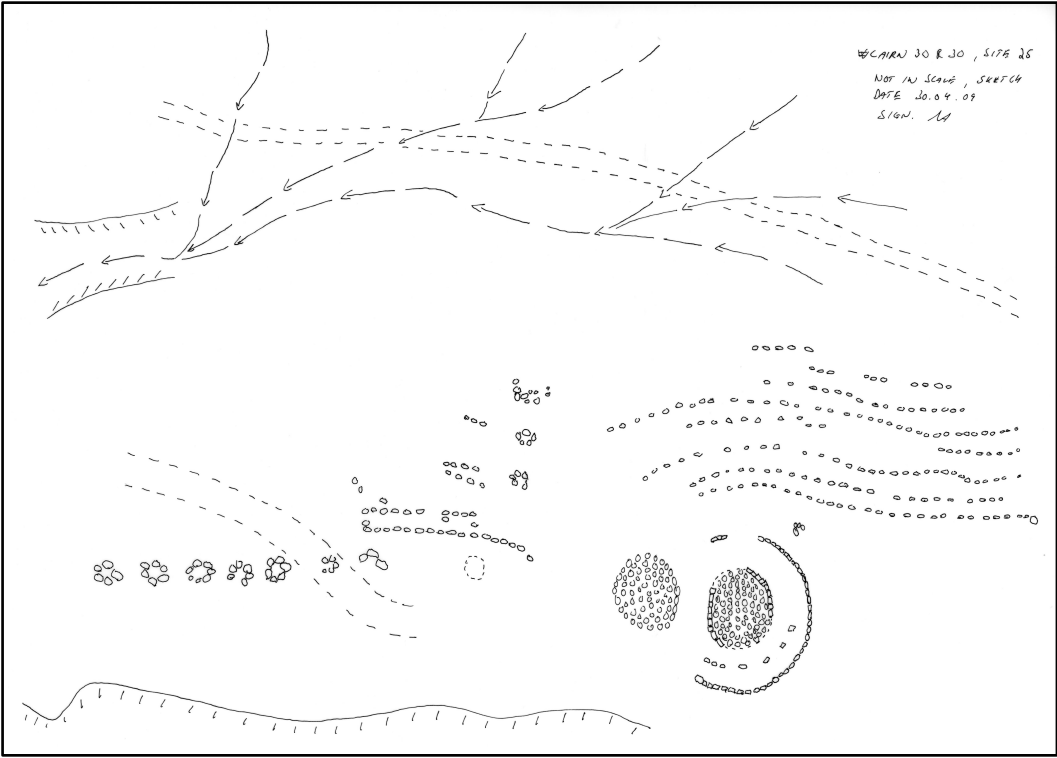


Figure 21. Cairn complex (nr.1 in chapter 5) from the research area, drawing of site 25 (cairn 30 and 31).

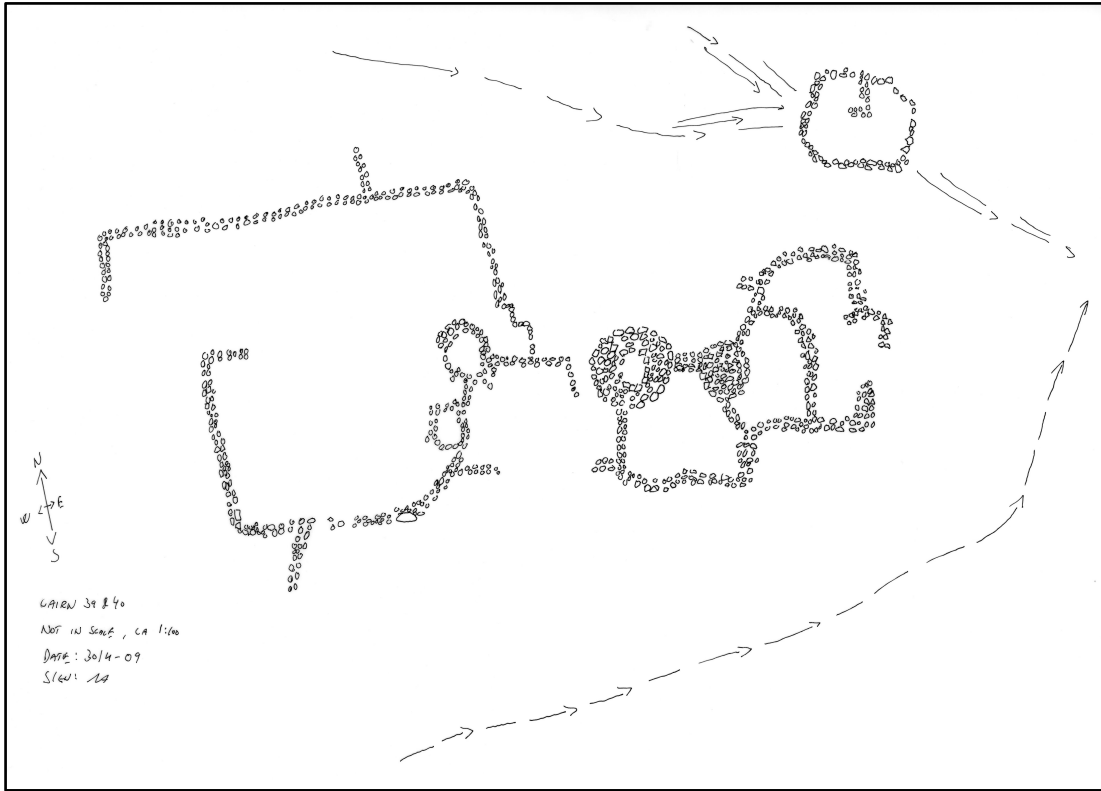


Figure 22. Cairn complex (nr.3 in chapter 5) from the research area, drawing of complex (cairn 39 and 40).



Figure 23. Picture of “pathway” from Nahal Mitnan, the Negev (Haiman, 1992:31).



Figure 24. Picture of “pathway” from the research area. Pathway leading towards cairn 30 and 31.

It is evident from the illustrations above, that the physical appearance between the cairns in our research area and the cairns in the Negev is very similar. Elements like rectangular platforms, strings and walls are present in both areas and the complexes are organised in a similar manner.

The cairns in the southern part of the Arabian peninsula can also be compared to the research area. The dating to the Safitic Period based on inscriptions seems uncertain, since the carvings could possibly be secondary. Examples of secondary inscriptions might also be represented in our research area as some of the blocks found close to a group of cairns had Arabic inscriptions on them. The continuity in the use of cairns is a well-known phenomenon that is also evident in our research area. In our research area this is evident through the variation in construction of the cairns, making it likely that the area has been utilised over time. The walls that Field suggested were retaining walls can be similar to the mentioned strings that are found attached to the cairns in our research area and in the Negev and Sinai.

The tumuli presented in the Italian report seem to bear resemblance to the structures that are surveyed in the research area of this thesis. The distribution of these tumuli also seem to follow a pattern not unlike the pattern in our research area, as the structures are distributed along “the saddle and at the base of the steep slopes of the Jebel Tadmoryieh el-Janoubiyeh” (Cremaschi et al., 2008). In the Italian report scrapers and scraper blanks are registered and as mentioned these are often connected to pastoral nomadic activity. Even though it is not

possible to conclude with certainty from the preliminary report, it is likely that an EBA IV, pastoral nomadic activity in the research area of the Italian team is possible.

When it comes to the material collected in the different areas it is difficult to conclude, as the material from our research area is yet to be studied systematically. Still, we know that in all areas described, large amounts of lithic material are found, including scraper blanks that are seen in connection with pastoral nomads. The continuity in use of the areas is also evident in the pottery that is collected (see table with pottery in appendix of this thesis). A comparison between Syria and Palestine in EBA IV has been done earlier, mostly with regard to pottery, metallurgy and chamber and shaft tombs (Dever, 1980:48). The previous chapter shows that it is also possible to compare the cairns of the Negev and Sinai with the cairns in the Syrian Steppe.

One cannot with certainty assume that the cairns in the research area can be dated to EBA IV. However, the empirical data and the theory might support such a theory. The custom of burial that is evident in the research area has parallels in other parts of the region and this has been exemplified in this thesis by the examples presented in chapter 6. In these areas the cairns have in some instances been dated to EBA IV by analysis of material from the cairns and also connection to EBA IV settlements. It is now established that there are great physical similarities in the construction of the cairns and cairn complexes, in addition to similarities in distribution of the cairns. The following section will further explore what this organisation of landscape and construction of burial monuments can reveal of political, religious and social character.

7.3. Political, religious and social landscapes – consolidating land ownership

It is a common phenomenon, not only in the Middle East, but also in Europe to distribute above-ground monuments as land markers along ridges and summits and in the lowland close to rivers (for a European example see Tilley, 1994: 120-123). This can be linked to land control in connection to transhumance and the control of water (Tilley, 1994:120). The way the landscape is connected through view between the monuments and the natural features makes it a field (Tilley, 1994:120-123). Since the rest of the immediate area surrounding the research area are more contourless, it seems likely to assume that this place is chosen because of its potential to be shaped; it becomes a natural point for phenomena like ancestor cults and social focal points for mobile groups. The building of visible monuments marking the landscape in this territorial manner is typical of non-sedentary societies as the consolidation of control over land and the need to create a place is highly prioritized. Below-ground burials

would not serve the same purpose (Porter, 2002:23). This indicates that the monuments can be subscribed to pastoral groups (Tilley, 1994:120, Porter, 2002:23).

It is common in non-sedentary societies, like pastoral nomadic societies, to use these burial sites as physical landmarks that link the group to space and place as much as time (Porter, 2002:23). The cairns in the research area are clearly landmarks and can well have served such a purpose. Still it is not likely that the only purpose of the construction of the cairns is of this character. It seems that the cairns have served both a political and territorial purpose in addition to a social and religious purpose and therefore the cairns can also to a certain degree reveal knowledge of social and political organisation and relations.

Territorial control

In a regional perspective it is relevant to see the cairns as components in a political landscape (Driscoll, 1988:228) where the cairns represent the need to control territory (Rosen, 2008:122). Thus it is possible that the cairns reveal the start of territorial behaviour and consolidation of power in the outskirts of the urbanised areas.

The Middle East was in the third millennium marked by strong, urban centres. In Syria the centres in the north were growing, and there were prominent tells and urban centres in Palestine and in southern Mesopotamia which were expanding rapidly. The need to control the land surrounding these centres, or the land between the centres must have been present. This can be because of the need to control routes of trade and exchange of commodities. This is especially evident in the areas in Jordan that is described in this thesis. From this example we know that trade in desert products between the pastoral nomadic population and the sedentary population took place. The role of trade in wool is evident from the Ebla texts, giving an example of the interdependency between pastoral and agricultural groups: in exchange of wool, pastoralists obtained products from the agricultural groups. It is therefore possible that the research area can be a catchment area, an area that is not under direct political control of urban centres, but rather an area included because it contained necessary resources.

An important aspect of territorial control would be controlling water. This aspect needs to be further examined by surveying and investigating the water sources in the research area systematically in order to know where the water is and the plausibility that it was there in EBA. Still, the control of the wadis that were probably routes of transportation during the dry season, would probably mean control of valuable water resources when the wadis were full. The mentioned portal in the research area, made from two cairns “overlooking” a wadi-

opening is evidence of the importance of controlling the water. It is also worth noticing that the complexes presented in chapter 5 are mostly situated in junctions where several wadis meet. It is evident in the other areas that are used for comparison that the control of water resources seems to have played a part in the distribution of cairns. Water collecting is often done in connection with wadis, as wadis collect rainwater. On the basis of this, one can say that the cairns in this area are not only found close to routes, but also close to water sources in the area.

It is possible to assume that the building of these visible monuments can be an indicator of increasing population and pressure in an area, as it is a result of the need to control territories (Steadman, 2005:296). If one wishes to draw some lines to the later development in the research area, this phenomenon of tying bonds to a place can in turn lead to sedentary populations. By institutionalising the ancestor cult the need of people to stay in that place to maintain the structures develops (Porter, 2002:27). To have control over genealogies is in this case to have control over territory (Porter, 2002:26). To construct above-ground burial monuments as symbols for the control over genealogies will in turn lead to a socio-economic change in the society, where the formation of an elite becomes reality (Porter, 2002:26).

Social organisation

The cairns in themselves bear witness to a group with strong connections to an area. It is likely that this group has applied myths, stories and feelings to topographical features of the landscape (for ethnographic examples see Steadman, 2002:293-294). This is one important aspect of the starting point in the creation of focal points in the landscape. As mentioned, it is common practise among pastoral nomadic peoples to create focal points in a landscape, both in ancient times and today. To create a focal point to which they return, contributes to creating an identity and to creating ties to ancestors and therefore also to each other. In this way, according to Porter (2002), the identity of the group is upheld, as well as the connection to the area they utilise.

It is worth noticing that some of the burial sites are more elaborate than others, being part of a complex, having two chambers and other structures linked to them, like strings, large foot chains and platforms. Elaborate complexes like this can indicate a hierarchical society. On the other hand, taking into consideration that we at this point know to little of the time span of utilisation and the variation this can cause on the constructions of the cairns, the cairns can also be seen as very similar in construction, thus pointing towards an egalitarian

social structure. Taking into consideration the practice of creating ancestors this is a point worth considering. A possible pastoral nomadic society would have a more egalitarian structure where the individual would become part of an ancestor group, creating a burial field where different fragments of a confederation or family could return on a seasonal basis to an area that was a focal point and a common ground based on kinship and ancestors. Similar burial sites with what can seem a lack of grave goods can be an indicator an ideology where group identity and the collective memory is more important than the individual (Porter, 2002:23).

At the same time the assumed egalitarian organisation of the pastoral groups is challenged by the phenomena the cairns in the research area represent. Engaging in the construction of monuments like the cairns, requires a surplus of work force, which occur when a surplus of resources is a fact. Thus, the surplus the construction of these cairns is evidence of will most likely have led to an increasing complexity of the society that built them (Porter, 2002:26).

What the cairns and their placement in the landscape reflect is that they can be connected to a strong and well administered society. From the analysis of the cairns it is likely to believe that this area has been a focal point for a large population. Administering an area in this manner requires some form of leadership within a group, pointing towards an organisation that is not completely egalitarian. The continuity that is gained from creating a focal point is evident in the number of cairns in the area. Without attempting an accurate estimation, which would require a study in itself, it is evident that the cairn field must have been utilised through many centuries.

It is not unlikely to think that there may have been campsites in the area in EBA; from both the areas in Jordan and at the Arabian Peninsula that is described in this thesis, we know that there are indications of ancient camps close to the cairns. The following section of this chapter, will further explore the similarities between our research area and the surrounding area and what these areas can reveal on the socio-economic and political frameworks of the EBA.

7.4. Frameworks for pastoral nomadic activity - collapse or cycle?

The information of social and economic character embodied in the cairns and their placement in the landscape has been explored in the previous sections. This section will further discuss what the cairns in the research area can reveal concerning the socio-economic changes in the third millennium and how pastoral nomadic societies fit into these changes.

First there is the question of whether the urbanisation that takes place in Syria from the mid-third millennium BCE encounters a collapse at the end of the third millennium BCE. Then there is the question of whether the pastoral nomadic activity that is evident in the research area can be ascribed to one of these events; the urban revolution that is evident in the mid-third millennium BCE or the alleged collapse that takes place at the end of the third millennium? As mentioned earlier it is not necessarily one or the other, as we do not yet know the time span of utilisation of the area.

The decline of urbanisation that is evident at the end of the third millennium BCE, not only in Syria but also in the extended region of the Near East, has been explained by applying many different theories. Climate and climatic changes have been emphasised to a large extent. It has been established previously in the thesis that there was a degradation of the landscape in the Near East during the third millennium BCE. This can be due to the pressure on grazing and cultivation that in turn has led to a steppe landscape that is treeless and dry (Wilkinson, 2003:18). In the research area there has only been a sedentary population for shorter periods of time and therefore the cultivation has been limited. It is therefore likely to believe that extensive pastoral activity has taken place leading to pressure on grazing and need of fuel that in turn has contributed to the degradation of the landscape.

To ascribe all change to climate might be incorrect and one must also look at the consequences of the political activity of the EBA II and EBA III. If climate was the main reason for the socio-economic change, it is difficult to explain how some prominent centres could remain as they did. Conflict and warfare between pastoral groups and sedentary populations has also been applied as an explanatory model. Before considering an explanation of the general decline it is necessary to consider the exceptions. There were thriving urban centres in this period (Akkermanns and Schwartz, 2003:284), and this makes the explanation more complex; dramatic climatic changes would have affected the whole region, and an invasion and intrusion by pastoral groups would most likely not spare certain centres. The growth and decline of urban centres during the third millennium BCE and the obvious pastoral nomadic presence in between these phases, point towards a cyclic development. It is not necessarily so that the two economic systems only thrive at the expense of the other, most probably the two economies were highly dependent on each other. Still, during these fluctuations the power relations between the economies would go back and forth and environmental conditions could affect the power relations between agricultural groups and pastoral groups.

As mentioned there has been assumptions among archaeological researchers that pastoral nomadism occurs as a result of necessity in times of crisis; when there are no resources to support an urban economy people resort to pastoral nomadic economy. This would indicate that the increased pastoral nomadic society in the research area, as well as in the marginal areas elsewhere in the region, indicates collapse of urban economy. Another interpretation has been that the declining urban centres that occurs at the same time as increased population in the marginal areas, indicates a violent invasion by pastoral nomads. Both these assumptions are based on prejudices against pastoral nomadic groups and even though events of the character described above might have occurred, this is not a course of events that should be accepted without further critique. A possible, alternative interpretation is that a pastoral nomadic economy occurs in times of stable political control, when pastoral nomadism becomes one of several economies that is necessary for conducting trade and providing sufficient resources to support large urban centres.

What is evident in the material from the research area is the territorial behaviour. Control of land, routes and water is clearly one of the aspects embodied in the cairns and their placement; they are land marks that indicate control. The building of the stone cairns as part of a system of boundary markers is evidence of a society in interaction with others (Porter, 2002). This implies external motivation for the construction of the cairns, but there are also more internal motivation evident in the construction of the cairns. The other obvious aspect of the cairns and their placement is the creation of ancestors; by creating a field to which they can return on a seasonal basis, the pastoral nomadic population creates an identity in the group, probably at different levels, both family level and tribe level. This activity points towards a society of a certain hierarchal organisation, as it would require much resources and administration. Similar large-scale building activity is evident in the surrounding areas that have been presented in this thesis. This development can help elucidate the socio-economic changes in the Near East during the EBA.

As mentioned there is a pulsating pattern of settlement and utilisation in the steppe region that is evident in the Negev and Sinai as well as west of the Euphrates. This shows continuity through the Hellenistic, Roman and Byzantine periods. The pottery assemblages in our research area show that also our research area has been utilised through all these periods, and one cannot discard the possibility of a similar pulsating pattern in this area even though a conclusion concerning this would require further studies. This pulsating or cyclical development can be ascribed to a framework of stable political and economic environment and population growth (Castel and Peltenburg, 2007), which would mean that theories of

tension and warfare between sedentary and nomadic populations leading to collapse and power shift is not likely. In the Negev the increasing population of the steppe areas is traditionally seen in connection with the collapse of the urban centres (Castel and Peltenburg, 2007). At the same time, it is also worth noticing that it is not only during declining urbanisation that the Negev and Sinai has witnessed an increase in activity by pastoral nomads. Also in times of incursion into the steppe by urban centres, pastoral nomadic activity has flourished on the fringes of the settlement (Rosen, 2008:128). It can therefore seem as pastoral activity in the marginal areas does not only occur during certain frameworks, but through many of the shifts the region witnesses.

The socio-economic changes did not only occur at the end of the third millennium BCE, but there seem to have been development back and forth. The influence of the Uruk dynasty seems to decline in northern Mesopotamia, around the Euphrates at the beginning of the third millennium BCE, leading to less densely populated centres (Porter, 2002:25). The mentioned second urban revolution then occurred from ca. 2400 BCE. At the end of the third millennium however, a decline in urbanisation is again evident. It is relevant to mention that some large centres prevailed and that during the MBA, the region again flourished in large centres and networks. From Syria large centres like Qatna and Al-Rawda are clearly dependent on pastoral economy and has a strong position both in the third and second millennium BCE. In times of decline in urbanisation, like at the beginning of the third millennium BCE, the implications on the pastoral communities in the region would be that the market for their produce was diminishing and the produce from agriculture, which earlier was provided from the sedentary population diminished. This development might have led to the pastoral societies relocating to areas where limited agriculture could be conducted (Porter, 2002:25). It is also possible that pastoral societies at this point engaged in trading opportunities that were available after the withdrawal from certain areas by the Uruk dynasty. Considering the possibility of the cairns in the research area being ascribed to the last half of the third millennium BCE, a possible scenario would be that different groups, tribes or confederations of pastoral nomads utilised the same area or that a route of communication went through the area making it necessary to mark territory. The urban development in the last half of the third millennium BCE, suggests a pressured situation in the steppe areas.

With the example of Al-Rawda it is evident that the pastoral economy held an important position in the development of the urban centres. As the area traditionally has been utilised by nomads on a seasonal basis it is likely to believe that the pastoral nomads in EBA IV were involved with the long distance contact that is traceable in the archaeological

material at the site (Castel and Peltenburg, 2007). It is often assumed that pastoral nomadism thrives under a central power that demands their services to conduct long distance trade, as one of Sadr's four categories implies (see chapter two of this thesis). It is also possible that this can be rearranged so that the long distance trade conducted by pastoral nomads led to one group parting from the pastoral economy and dedicating themselves to administering the trade. Instead of pastoral nomadism occurring on a demand from a central power, the central power has its out spring in the pastoral system. From the Mari text we know how for example Zimri – Lim that was king of Mari in the Middel Bronze Age was of pastoral nomadic origin (Porter, 2002:6). It is evident that pastoral nomads played a part in the development that took place in MBA, also in the urban segments of the society. The start of this control could well have been consolidated through the EBA.

In times of insecurity, the creation of focal points and ancestors, connecting a group is crucial (Porter, 2002:25). In modern times we know that pastoral nomads usually become sedentary under a stable political state, and not under uncertain and chaotic times (Szuchman, 2008:404). The assumed collapse in EBA IV, a theory that is based on the expansion into the marginal areas in the Near East, is therefore not the only possible explanation of the socio-economic changes in EBA IV.

This section has discussed two different scenarios: that the cairns and activity in the research area can be the result of increased political authority and prosperity in trade between pastoral nomadic groups and sedentary urban groups, or the opposite: an adaption from urban life to pastoral nomadic organisation as a response to decreasing resources to support the urban economy. As will become clear in the concluding chapter that, it is not necessarily one or the other.

8. Conclusion

This chapter will attempt to answer the research questions presented in the introduction of this thesis. The research questions of this thesis are:

- **Can the cairns in the research area be connected to a pastoral nomadic population in the area in EBA?**
- Alleged socio-economic shifts occurred in the third millennium BCE. **What do the cairns reflect concerning the position of pastoral nomads in the Syrian steppe economically and socially?**
- The above-mentioned shifts are studied to a much larger degree in the areas surrounding our research area. **Can the research area reflect a development in the Syrian steppe similar to the development in the Southern Levant in EBA?**
- Socio-economic shifts are often ascribed to dramatic circumstances and collapse, and this has also been the case for third millennium BCE in the Near East. **Can the research area and the comparative areas contribute to exploring new perspectives on the nature of the development in the third millennium BCE?**

Underlying analytic terms have been a micro-meso-macro perspective, that has been applied to give a wide perspective on the research area.

Considering the material in the research area it is likely to assume that there has been large pastoral nomadic activity in the area in EBA. This theory is supported by the comparison of the burial cairns in the area to burial cairns in surrounding areas presented in this thesis. Both the physical construction of the cairns and the placement in the landscape is similar over the whole region, as shown in the previous chapter. Extensive research conducted in Jordan, the Negev and Sinai and the Arabian Peninsula can support a theory of ascribing these cairn fields to pastoral nomads in EBA and it is safe to assume that also the cairns of the research area can be ascribed to EBA and pastoral nomadic groups. The research area has probably been a focal point for a pastoral nomadic population, serving a social, religious and economic purpose. The social purpose can be creation of an identity by creating a place in the landscape to which the group returns on a seasonal basis through generations. Closely connected to this is the religious purpose of creating ancestors. The placement of the cairns indicates that they also mark territory and a possible route of trade or at least transportation.

By further studies this activity can be put in connection to the later, sedentary population in Jebel Chaar, as we know that the creation of a focal point in this manner can

lead to a process of sedentarisation as the administration of the cult requires more and more attention. The alternatives to the interpretation that the cairns belong to pastoral nomadic societies in EBA, should be explored more thoroughly, but at this point it is not easy to see the cairns connected to any of the other structures in the landscape and therefore it is not likely that they can be ascribed to the Roman Era or to sedentary populations.

The economy of the pastoral nomads in question was probably based on trade and in some cases seasonal agriculture, in addition to pastoralism. It is too soon to know if agriculture has been part of the economy of the nomads in the research area. That the nomads were concerned with trade seems more obvious and this will be discussed further later in this section.

It is likely to assume that socio-economic shifts did occur through the third millennium BCE. The decline in urbanisation through the first half of the third millennium BCE owing to the decrease in Mesopotamian influence, the “second urban revolution” that took place in the middle of the third millennium BCE and the decline of this process towards the end of the third millennium BCE are all evidence of a cyclical pattern in socio-economic relations.

The analysis in the previous chapter leaves us with two different scenarios: that the pastoral nomadic activity in the marginal areas in the Near East can be ascribed to environmental recession and decreasing urbanisation, or the opposite, that it can be ascribed to a thriving development of trade networks and communication across large distances. Based on the material in the research area of this thesis, the latter seems more applicable. The large building activity and the administration and surplus of workforce this building activity would require does not support a theory of a society in crisis. As discussed in the preceding chapter, it is evidence of an economy in growth and it is most likely that this pastoral nomadic economy was dependent on and thrived because of trade and communication with urban, sedentary populations. The creation of cairn fields claiming control of territory is evidence of a population that is in close contact with other societies. Such activity also contributes to creating a group identity at a family and tribe level within a pastoral nomadic society and to create more hierarchical structure of social organisation. The material in the research area exemplifies the strong position pastoral nomadic societies must have had in the region in EBA.

It is likely that the research area has been utilised through the second half of the third millennium BCE, with especially much activity in EBA IV, assumptions based on the comparison to the other areas in the region. This makes it possible to use the material from

the research area to comment on the alleged collapse of urban centres in EBA IV. Applying the term collapse implies dramatic and abrupt end of the urban economies often ascribed to environmental conditions. As it is already established that the society in the research area in EBA IV was not a society in crisis, a theory of cyclical development is more applicable. The pulsating pattern in the marginal areas of the Near East is evident not only in the research area, but in the extended region. The utilisation of these areas could be a defence mechanism against climatic changes and environmental challenges, and also a reaction to political control. In this way, networks of exchange and communication could exist in the interval between two urban phases.

This scenario makes it possible to revise the view of pastoral nomadic groups in the Near East in EBA as violent and intrusive groups; it becomes more likely to see the pastoral societies as a stable system that contributes to the developments in the more central areas and that thrives under political control from urban centres, not necessarily under direct control, but as part of a system. Large urban centres like Ebla, Qatna and Al-Rawda that flourish further into MBA were clearly dependent on pastoral nomadic groups and might have occurred as a result of fractions of pastoral societies becoming sedentary to meet the needs of increased land control connected to trade. This shows that to fully understand the development in the much researched centres one must look to the space in between these centres as the hinterland often plays a big part in the development of centres.

It is evident from the analysis of the material presented in this thesis that one cannot ascribe the pastoral nomadic activity to limited frameworks of a certain political and social character. Pastoral nomads seem to be part of the networks of the Near East through the whole of the third millennium BCE and probably also before and after. It is therefore possible that the research area has been utilised through the whole of the third millennium BCE as a focal point to which pastoral nomadic societies of different character returned for religious, economic, political and social reasons.

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Appendix

Table of pottery found in close vicinity to cairns

Cairn 6 and 7	Brittle ware	Fragment	1	Islamic	Small
	Local coarse ware	Fragment	1	Islamic	Small
Cairn 33	Brittle ware or imported coarse ware. Uncertain.	Handle	1	Roman-byzantine	
Cairn 34-38	Brittle ware	Complete	1	Islamic	
	Brittle ware	Handle	1	Islamic	
	Brittle ware	Fragments	8	Islamic	
	Brittle ware	Fragments	3	Islamic	
	Dark red coarse ware	Rim	3	Islamic	
	Brittle ware	Fragments	6	Islamic	
	Britel ware	Handle	1	Islamic	
	Local coarse ware	Fragments	12	Islamic	
	Local coarse ware	Fragments	2	Roman-byzantine	
	Brittle ware	Fragments	4	Roman-byzantine	One of the fragments is a rim.
Cairn 39-40	Brittle ware	Fragments	5	Islamic	
	Brittle ware	Fragments	9	Islamic	
	Brittle ware	Fragments	1	Islamic	
	Brittle ware	Rim	2	Islamic	
	Imported coarse ware	Base	1	Roman-byzantine	
	Imported coarse ware	Fragments	5	Roman-byzantine	

	Brittle ware	Rim	1	Islamic	
	Dark ware	Fragments	1	Unknown	With decoration.
	Glazed ware	Fragments	1	Parthian. Uncertain.	With green paint, traces on the interior
	Plain simple ware? Uncertain.	Fragments	1	EBA IV. Uncertain.	With red paint.
Cairn 50	Plain simple ware? Imported coarse ware? Uncertain.	Fragments	12	EBA IV or roman-byzantine	
Cairn 54-57	Plain simple ware? Imported coarse ware? Uncertain.	Fragments	11	EBA IV or roman-byzantine	
	Dark red coarse ware	Fragments	1	Roman-byzantine	
Cairn 70-72	Plain simple ware? Uncertain.	Fragment	1	EBA IV. Uncertain.	
Cairn 130	Local coarse ware	Fragment	1	Roman-byzantine	
Cairn 131	Brittle ware? Uncertain.	Fragment	1		Difficult to identify.
Cairn 135	Brittle ware	Fragment	2	Islamic	
	Local coarse ware	Fragment	1	Islamic	
Cairn 136	Local coarse	Fragment	1	Islamic.	

	ware			Uncertain.	
Cairn 151	Brittle ware	Fragment	2	Islamic	
Cairn 154	Plain simple ware? Uncertain.	Rim	1	EBA IV. Uncertain.	
	Plain simple ware? Uncertain.	Fragment	5	EBA IV. Uncertain.	

Table with information concerning the selection of cairns

<p>12</p> <p>Group: 12,13,14,15,16</p> <p>Complex: other cairns and wall</p> <p>Locality: Ridge</p> <p>Chamber: yes</p> <p>Foot chain: yes</p> <p>Inner/outer circle: inner</p> <p>Platform: possible</p> <p>Strings: no</p> <p>Other: 12 and 13 might have been connected by platform. Close to moderen beduin village and Bedouin grave</p>	<p>13</p> <p>Group: 12,13,14,15,16</p> <p>Complex: other cairns and wall</p> <p>Locality: Ridge</p> <p>Chamber: two</p> <p>Foot chain: yes</p> <p>Inner/outer circle: no</p> <p>Platform:</p> <p>Strings: no</p> <p>Other: 12 and 13 might have been connected by platform. Close to moderen beduin village and Bedouin grave</p>
<p>14</p> <p>Group: 12,13,14,15,16</p> <p>Complex: other cairns and wall</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain: yes</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings: no</p> <p>Other: very close to moderen beduin village, close to Bedouin grave</p>	<p>15</p> <p>Group: 12,13,14,15,16</p> <p>Complex: other cairns and wall, 15 connected to a small wall or terrace</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings: no</p> <p>Other: very close to moderen beduin village, close to Bedouin grave</p>
<p>16</p> <p>Group: 12,13,14,15,16</p> <p>Complex: other cairns and wall</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle: no</p>	<p>17</p> <p>Group: 17,18,19,20,21,22,23,24</p> <p>Complex: other cairns and two small walls or terraces facing south, interconnected with 18</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p>

<p>Platform:</p> <p>Strings: no</p> <p>Other: very close to modern beduin village, close to Bedouin grave</p>	<p>Platform:</p> <p>Strings:</p> <p>Other: Recent Bedouin grave in the centre</p>
<p>18</p> <p>Group: 17,18,19,20,21,22,23,24</p> <p>Complex: other cairns and two small walls or terraces facing south, interconnected with 17</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings:</p> <p>Other:</p>	<p>19</p> <p>Group: 17,18,19,20,21,22,23,24</p> <p>Complex: other cairns and two small walls or terraces facing south</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner circle:</p> <p>Platform:</p> <p>Strings:</p> <p>Other:</p>
<p>20</p> <p>Group: 17,18,19,20,21,22,23,24</p> <p>Complex: other cairns and two small walls or terraces facing south</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings:</p> <p>Other:</p>	<p>21</p> <p>Group: 17,18,19,20,21,22,23,24</p> <p>Complex: other cairns and two small walls or terraces facing south</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain: yes</p> <p>Inner/outer circle:</p> <p>Platform: yes, in western part</p> <p>Strings:</p> <p>Other:</p>
<p>22</p> <p>Group: 17,18,19,20,21,22,23,24</p> <p>Complex: other cairns and two small walls or terraces facing south</p> <p>Locality: Ridge</p> <p>Chamber:</p>	<p>23</p> <p>Group: 17,18,19,20,21,22,23,24</p> <p>Complex: other cairns and two small walls or terraces facing south</p> <p>Locality: Ridge</p> <p>Chamber:</p>

<p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings:</p> <p>Other: Oval, recent B grave in the NW</p>	<p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings:</p> <p>Other:</p>
<p>24</p> <p>Group: 17,18,19,20,21,22,23,24</p> <p>Complex: other cairns and two small walls or terraces facing south</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings:</p> <p>Other:</p>	<p>25</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain: yes</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings:</p> <p>Other:</p>
<p>26</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings:</p> <p>Other: In N part is a modern shade</p>	<p>27</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain: yes</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings:</p> <p>Other:</p>
<p>28</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Ridge</p>	<p>29</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Ridge</p>

<p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings:</p> <p>Other: Two recent shades in the cairn</p>	<p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings:</p> <p>Other: Stone with cup-marks found close to the cairn</p>
<p>30</p> <p>Group: Duo (31)</p> <p>Complex: large complex with pathways and circular structures</p> <p>Locality: Bank</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings:</p> <p>Other: Also defined as site 25</p>	<p>31</p> <p>Group: Duo (30)</p> <p>Complex: large complex with pathways and circular structures</p> <p>Locality: Bank</p> <p>Chamber:</p> <p>Foot chain: yes</p> <p>Inner/outer circle: two outer</p> <p>Platform:</p> <p>Strings:</p> <p>Other: Also defined as site 25, two foot chains</p>
<p>32</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Bank</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings:</p> <p>Other:</p>	<p>33</p> <p>Group: Single</p> <p>Complex: rectangular building close</p> <p>Locality: Bank</p> <p>Chamber: yes</p> <p>Foot chain: yes</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings:</p> <p>Other: Recent Bedouin grave to NW and E</p>
<p>34</p>	<p>35</p>

<p>Group: 34,35,36,37,38</p> <p>Complex: With two structures A and B</p> <p>Locality: Bank</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform: yes, in complex</p> <p>Strings:</p> <p>Other: Signs of recent Bedouin tents with gravel, in reality two, interconnected cairns (a and b)</p>	<p>Group: 34,35,36,37,38</p> <p>Complex: With two structures A and B</p> <p>Locality: Bank</p> <p>Chamber:</p> <p>Foot chain: yes</p> <p>Inner/outer circle:</p> <p>Platform: yes, in complex</p> <p>Strings:</p> <p>Other: Signs of recent Bedouin tents with gravel</p>
<p>36</p> <p>Group: 34,35,36,37,38</p> <p>Complex: With two structures A and B</p> <p>Locality: Bank</p> <p>Chamber:</p> <p>Foot chain: yes</p> <p>Inner/outer circle:</p> <p>Platform: yes, in complex</p> <p>Strings: yes</p> <p>Other: Signs of recent Bedouin tents with gravel</p>	<p>37</p> <p>Group: 34,35,36,37,38</p> <p>Complex: With two structures A and B</p> <p>Locality: Bank</p> <p>Chamber: yes</p> <p>Foot chain: yes</p> <p>Inner/outer circle: inner</p> <p>Platform: yes, in complex</p> <p>Strings:</p> <p>Other: Signs of recent Bedouin tents with gravel</p>
<p>38</p> <p>Group: 34,35,36,37,38</p> <p>Complex: With two structures A and B</p> <p>Locality: Bank</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform: yes, in complex</p>	<p>39</p> <p>Group: Duo (40)</p> <p>Complex: Large complex with corrals, paths and platforms</p> <p>Locality: Bank</p> <p>Chamber: yes</p> <p>Foot chain: yes</p> <p>Inner/outer circle:</p>

<p>Strings:</p> <p>Other: Signs of recent Bedouin tents with gravel</p>	<p>Platform: yes, connecting them</p> <p>Strings:</p> <p>Other:</p>
<p>40</p> <p>Group: Duo (39)</p> <p>Complex: Large complex with corrals, paths and platforms</p> <p>Locality: Bank</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform: yes, connecting them</p> <p>Strings:</p> <p>Other:</p>	<p>41</p> <p>Group: 41,42,43,44</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Platform:</p> <p>Strings: yes</p> <p>Other: wall leading form cairn in SW down the slope</p>
<p>42</p> <p>Group: 41,42,43,44</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings: yes</p> <p>Other: wall leading form cairn in SW down the slope</p>	<p>43</p> <p>Group: 41,42,43,44</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other:</p>
<p>44</p> <p>Group: 41,42,43,44</p> <p>Complex: Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p>	

Strings: Other:	
46 Group: Single Complex: Locality: Ridge Chamber: Foot chain: Inner/outer circle: Strings: Other: possibly connected by view with 47	47 Group: Single Complex: Locality: Ridge Chamber: Foot chain: Inner/outer circle: Strings: Other: possibly connected by view with 46
48 Group: Single Complex: Walls/strings Locality: Bank Chamber: yes Foot chain: yes Inner/outer circle: Strings: yes (towards the wadi) Other: Might be a more recent Bedouin grave	49 Group: Single Complex: Locality: Ridge Chamber: yes Foot chain: Inner/outer circle: Strings: Other: part of dressed walls visible, foot chain? Complex? Outer circle? Has visible soil in the chamber
50 Group: Duo (51) Complex: Locality: Ridge Chamber: Foot chain: Inner/outer circle: Soil: Strings: Other: Recent Bedouin grave in the middle	51 Group: Duo (50) Complex: Locality: Ridge Chamber: Foot chain: Inner/outer circle: Strings: Other:
52	53

<p>Group: Duo (53)</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: Stones from cairn reused in recent Bedouin graves and shelters</p>	<p>Group: Duo (52)</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: Stones from cairn reused in recent Bedouin graves and shelters</p>
<p>88</p> <p>Group: Duo (89)</p> <p>Complex:</p> <p>Locality: Bank</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle: outer</p> <p>Strings:</p> <p>Other: Corrals attached at a later stage, close to Tweihina</p>	<p>89</p> <p>Group: Duo (88)</p> <p>Complex:</p> <p>Locality: Bank</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: Corrals attached at a later stage, close to Tweihina</p>
<p>90</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Bank</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: Recent burials around, corrals, pottery not collected</p>	<p>91</p> <p>Group: Duo (92)</p> <p>Complex: Interconnected with 92</p> <p>Locality: Bank</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: Surrounded by later corrals</p>

<p>92</p> <p>Group: Duo (91)</p> <p>Complex: Interconnected with 91</p> <p>Locality: Bank</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Soil:</p> <p>Strings:</p> <p>Other: Surrounded by later corrals</p>	<p>94</p> <p>Group: 94,95,96,97</p> <p>Complex: Abutted with 95</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other:</p>
<p>95</p> <p>Group: 94,95,96,97</p> <p>Complex: Abutted with 94</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other:</p>	<p>96</p> <p>Group: 94,95,96,97</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other:</p>
<p>97</p> <p>Group: 94,95,96,97</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other:</p>	<p>100</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: Different character than the other cairns, on ridge with other cairns (101)</p>

<p>101</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: Recent burial inside, on ridge with other cairns (100)</p>	<p>102</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber: possibly two</p> <p>Foot chain: yes</p> <p>Inner/outer circle: outer (with possible opening)</p> <p>Strings:</p> <p>Other: Seems to have been an entrance in the outer circle</p>
<p>120</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other:</p>	<p>121</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other:</p>
<p>122</p> <p>Group: Duo (123)</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain: yes</p> <p>Inner/outer circle: outer</p>	<p>123</p> <p>Group: Duo (122)</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p>

<p>Strings: yes (from outer circle)</p> <p>Other: outer circle Same ridge as 124</p>	<p>Strings:</p> <p>Other: Same ridge as 124</p>
<p>124</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: Same ridge as 122, 123, reused as shelter</p>	<p>125</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Bank (watershed)</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: Two large cisterns with catch arms close to it</p>
<p>126</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Bank (watershed)</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: Track/pathway on opposite side of the wadi</p>	<p>127</p> <p>Group: Single</p> <p>Complex:</p> <p>Locality: Bank (watershed)</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: Track/pathway on opposite side of the wadi</p>
<p>128</p> <p>Group: 128,129,130,131,132,133,134</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p>	<p>129</p> <p>Group: 128,129,130,131,132,133,134</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p>

<p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: N of 130, 131 several rectangular blocks nicely dressed, in S some with inscriptions. Tracks visible in E and W towards Jazal</p>	<p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: N of 130, 131 several rectangular blocks nicely dressed, in S some with inscriptions. Tracks visible in E and W towards Jazal</p>
<p>130</p> <p>Group: 128,129,130,131,132,133,134</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: N of 130, 131 several rectangular blocks nicely dressed, in S some with inscriptions. Tracks visible in E and W towards Jazal</p>	<p>131</p> <p>Group: 128,129,130,131,132,133,134</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: N of 130, 131 several rectangular blocks nicely dressed, in S some with inscriptions. Tracks visible in E and W towards Jazal</p>
<p>132</p> <p>Group: 128,129,130,131,132,133,134</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: N of 130, 131 several rectangular blocks nicely dressed, in S some with</p>	<p>133</p> <p>Group: 128,129,130,131,132,133,134</p> <p>Complex:</p> <p>Locality: Ridge</p> <p>Chamber:</p> <p>Foot chain:</p> <p>Inner/outer circle:</p> <p>Strings:</p> <p>Other: N of 130, 131 several rectangular blocks nicely dressed, in S some with</p>

<p>inscriptions. Tracks visible in E and W towards Jazal</p>	<p>inscriptions. Tracks visible in E and W towards Jazal</p>
<p>134 Group: 128,129,130,131,132,133,134 Complex: Locality: Ridge Chamber: Foot chain: Inner/outer circle: Strings: Other: N of 130, 131 several rectangular blocks nicely dressed, in S some with inscriptions. Tracks visible in E and W towards Jazal</p>	<p>153 (see Christians report, Bir al-Arfa) Group: Single Complex: Locality: Slope/bank Chamber: Foot chain: Inner/outer circle: Strings: Other: In Bir al-Arfa</p>
<p>443 Group: Duo (444) Complex: Locality: Bank Chamber: Foot chain: Inner/outer circle: Strings: Other:</p>	<p>444 Group: Duo (443) Complex: Locality: Bank Chamber: Foot chain: Inner/outer circle: Strings: Other:</p>

Sammendrag på norsk

I det tredje millennium BCE skjedde det store sosioøkonomiske forandringer i Midtøsten. Millenniumet var vitne til både urbaniseringsprosesser og tilbakegang av disse prosessene. En tydelig overgang fra urban økonomi til mer spredt, blandet økonomi tok sted. Levanten har blitt studert med henblikk til denne perioden over mange tiår, mens den Syriske Steppen som grenser til Levanten ikke har blitt studert i like stor grad.

Denne masteroppgaven tar for seg et området utenfor Palmyra i Syria, et forskningsområdet under prosjektet ”Palmyrena – City, Hinterland and Caravan Trade between Occident and Orient”. I dette området har det blitt registrert over 150 gravrøysler langs landskapets wadier og fjellområder. Disse gravrøysene blir presentert i denne oppgaven. Videre forsøker denne oppgaven å plassere disse røysene i et kronologisk rammeverk ved å sette dem i kontekst med nærliggende områder og materiale. Rammeverket for studiet er tidlig bronsealder, nærmere bestemt det tredje millennium f.Kr. Ved å belyse gravrøysene og lignende materiale i den utvidede regionen fra tidlig bronsealder, vil oppgaven også kommentere den sosioøkonomiske utviklingen i området og rollen pastoral nomadiske grupper har hatt i denne utviklingen. Gravrøysene er territorielle markører i et økende politisk landskap og fra gravrøysene og deres plassering i landskapet kan det også dras slutninger om den sosiale og politiske organiseringen av de pastoral nomadiske samfunn, som framstår som en sterk og godt administrert gruppe.

I de analytiske og konkluderende kapitlene av oppgaven blir det tegnet et bilde av en region i stadig forandring og utvikling, der pastorale nomader innehar en rolle innenfor alle tidsepoker. Det pekes på at nedgang av urbanisering og økning av pastoral nomadisk aktivitet ikke nødvendigvis indikerer at de to ulike økonomiske og sosiale systemer kun vokser på bekostning av hverandre. Både teori og empiri viser et gjensidig avhengighet mellom gruppene i området. Det legges også vekt på at den pastoral nomadiske aktiviteten vi ser i forskningsområdet ikke kan indikere et svakt samfunn i krise, men heller en voksende økonomi.

De teoretiske perspektivene oppgaven bygger på er et variert grunnlag av teori rundt mobile grupper, tidlig konsolidering av makt over landskap og teorier rundt kollaps og sykluser. Det metodiske grunnlaget er fire ukers overflaterregistrering i området i 2009 der GPS ble brukt for å registrere nøyaktig distribusjon. Analogi til nærliggende områder har vært et viktig metodisk verktøy for å kunne sette gravrøysene inn i en større sammenheng.