

**URBANIZATION AND LAND CULTIVATION:
A TWO-WAY RELATIONSHIP WITH ROMANIZATION
IN NORTH AFRICA, 146 BC – AD 429**

by

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Above all, thanks to the Lord, my Saviour and Protector in whom I trust. I will say to the Lord, “My refuge and my fortress, my God, in whom I trust” (Ps 91:2).

Commitment to Avoid Plagiarism

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I hereby declare that this thesis, which is based on my research on *Urbanization and Land Cultivation: A Two-Way Relationship with Romanization in North Africa, 146 BC – AD 429*, is my own work and all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I have committed myself to avoid plagiarism on every level of my research and have fully cited, according to the Harvard Method, every source that I used, including books, articles, internet sources, and images.

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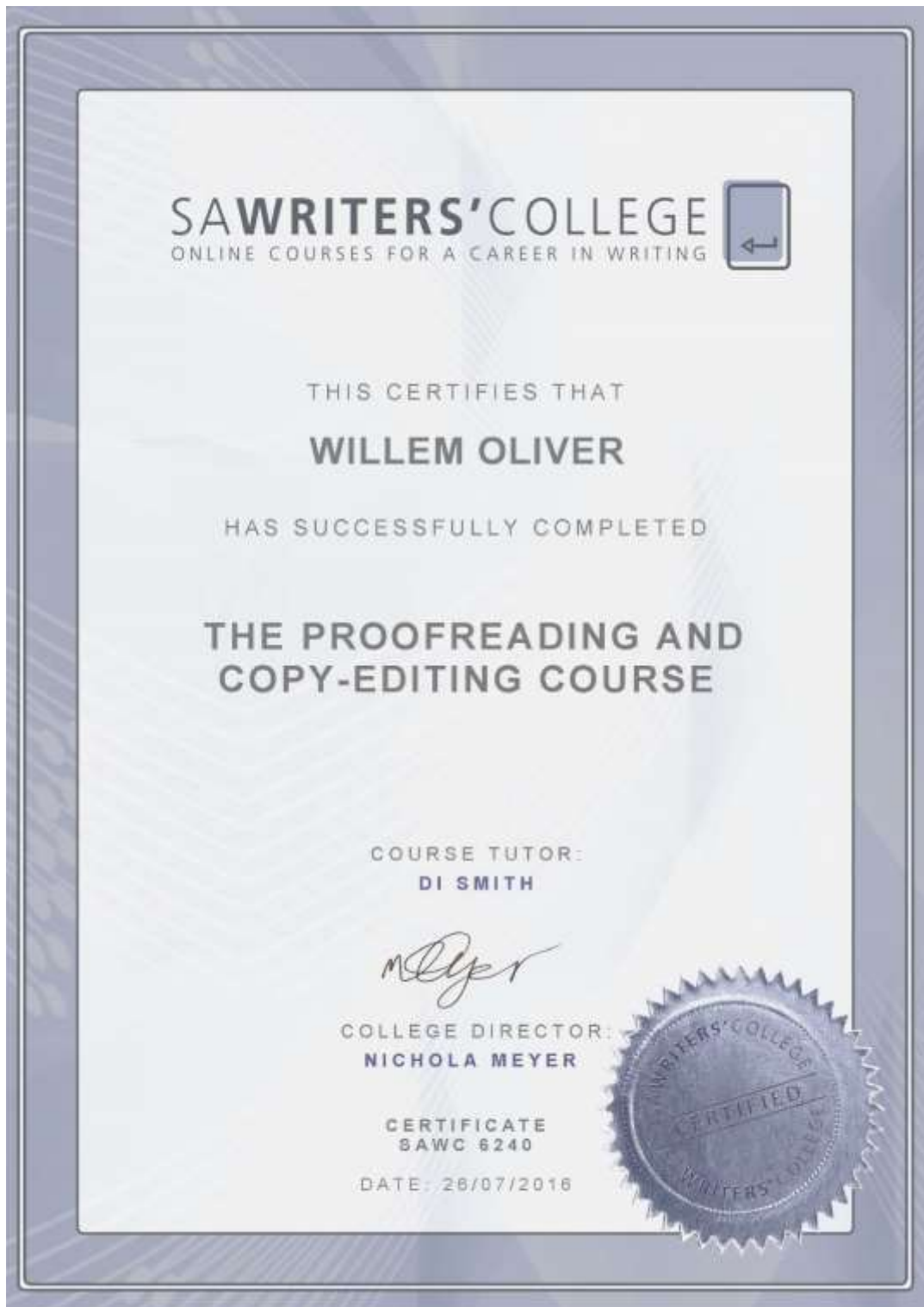
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Clarification of Key Concepts and Terms

Africa Proconsularis was a province of the Roman Empire which was formed when Augustus merged the two African provinces, Africa Vetus and Africa Nova, into one in 27 BC.

Amphorae were large vases with two handles and an oval body to store wine and olive oil.

Coloniae were mainly towns made up of Roman colonists, but this status was also at times granted to urban areas which were not founded by Romans. These towns were self-governing, and residents had Roman citizenship.

Dendrochronology is the use/study of dendrodata in connection with time periods.

Dendrodata refer to climatic data gathered from tree rings.

Eifel maars refers to volcanic deposits from which climatic data may be collected.

Groupthink is the psychological concept which refers to the tendency of a specific group to follow a certain type of mental construct.

Instrumental neutron activation analysis is used to determine the concentration of trace and major elements in a variety of matrices.

Land cultivation, in this case, refers to the formation of long-term farming interests in a specific area, e.g. the annual planting of seasonal crops on the same area of land, and the keeping of livestock in one area without seasonal migration.

Levies are groups of people enlisted to serve in the military.

Lex Manciana is a Roman law concerning the possession of property in North Africa, adopted under Vespasian during AD 69-96.

Limes were Roman fortified border areas.

Lingua franca is a language used to communicate between groups of people who speak different languages.

Municipia were non-Roman founded towns, although some residents had Roman citizenship. This status was usually granted by emperors for various political reasons. The holders of Roman citizenship in these towns consisted of ex-town governing officials.

Nundinae was a specific day on which a market was held.

R15 (Rhomboidal 15) is a global spectral atmospheric resolution ($\approx 4.5^\circ$ latitude by 7.5° longitude).

Retroductive reasoning is a form of inductive reasoning which uses observation to construct meaning.

Romanization is the adoption of Roman cultural aspects, such as laws, religion, economic and marital practices, language, and political structures and construction styles by non-Roman groups.

Speleothem are deposits formed in caves by minerals in water such as stalactites and stalagmites.

Stelae are pillars, rocks, or stones with inscriptions on and serve as markers or monuments.

Sulphate aerosols are sulphate particles present in the atmosphere.

Tephra is the particles and fragments of rock ejected by volcanic eruption.

Tephrochronology is the geochronological technique used in the dating of volcanic eruptions by looking at layers of tephra.

Abbreviated References

AD – Anno Domini

Ap – Apotheosis

BC – Before Christ

Geo – The Geography of Strabo

Hist – The Histories

Hist Nat – The Natural History

RCP – Roman Classical Period

List of Maps, Figures, and Tables

Note must be taken that I have received permission from the original authors to use all the figures and maps that are displayed in this dissertation. Proof of permission is available if and when requested.

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Summary

There is an extensive academic debate confirming the extent and nature of Romanization in relation to native North Africans. This refers specifically to the period during which this area was under Roman control (2nd century BC - 5th century AD). This study attempted to answer the following question: What was the exact nature of the relationship between Roman governance, urbanization, land cultivation, and Romanization? A number of secondary questions relating to pre-Roman groups and climate change, as well as the psychological concept of groupthink were also addressed. Use was made of primary and secondary sources, both archaeological and literary. Deductive and inductive reasoning was used in relation to a literary-historical analysis-based methodology. It was found that urbanization and land cultivation not only caused an increase in Romanization, but that a relationship existed between these factors leading to each causing the other's increase. It was found that Romanization was widespread.

Keywords (Indexing terms)

1. Romanization
2. Urbanization
3. Land Cultivation
4. Roman North Africa
5. Groupthink
6. Climate change
7. Ancient History
8. Classical Cultures
9. Punic North Africa
10. Greek North Africa

CHAPTER 1

INTRODUCTION

1.1 Introduction

North Africa, under the Roman rule, has been the focus of an extensive academic debate. Goodman (2007) holds the view that Romanization was quite widespread in North Africa, as is reflected in epigraphic evidence. Cilliers (2007b:45-46), on the other hand, relates the possibility that Romanization was merely a minor occurrence, and not at all widespread. These two authors represent two differing schools of thought on the topic of Romanization, and are supported in their respective views by authors such as Brown (1968:94), Millar (1968:133), Varner (1990:11), and Cordovana (2012:493-494) who all share the view of a largely Romanized North Africa, while Cherry (1998:76), Rives (2001:435), Quinn (2003:31), and Fentress (2006:31-33) hold the view that Romanization was not as extensive as these previously mentioned authors argue. It is clear that opinions differ between academics, making further research as well as debate imperative concerning this area of interest. One thing that all of these authors do have in common, is their view that urbanization and land cultivation were the catalysts of all the possible cultural changes concerning native North Africans. We will consider native groups like the Numidians, Mauri, Gaetulians, and Garamantes of central and western North Africa that will feature prominently in this study.

Romanization, in the context of this study, can be defined as the adoption of Roman social aspects such as family structures, political institutions, and economic as well as religious activities. My point of departure is that economic, military, and cultural developments are intimately connected with urbanization and land cultivation. In this instance, these developments can be viewed as falling under urbanization and land cultivation and will be discussed as sub-divisions in this research dissertation.

Urbanization refers to the movement of rural or nomadic populations into urban areas, and an increase and development of such areas (Hornby, Turnbull, Lea, Parkinson, Phillips, Francis, Webb, Bull, & Ashby 2010:1643). Land cultivation, in this context, is the planting and keeping of livestock in one area for an extended period of time (Hornby *et al.* 2010:832-833, 357). Urbanization and land cultivation were mainly the results of Roman control. However, Roman control does not equal Romanization. Thus, Roman control leading to an increase in

urbanization, does not alter the fact that urbanization and land cultivation could have been the cause of increased Romanization. Furthermore, there could have existed a two-way influence between urbanization and land cultivation, on the one hand, and Romanization on the other. Therefore, urbanization and land cultivation could have led to an increase in Romanization, but the reverse could also be true. It is possible, by using various primary as well as secondary sources, to reconstruct the negative and positive impacts and results of the Roman rule in North Africa in respect of the native populations that were present in this region. Moreover, this has already been attempted by academics such as Annandale (2001:1-95). Yet further attempts to reconstruct the effects of urbanization, land cultivation, and the Roman rule, as well as the incorporation of the available data from numerous sources into one research paper, is needed. When one takes a good look at previous studies conducted on this topic, it is quite easy to spot a growing trend towards viewing Romanization as having been less prevalent than it was previously thought.

Warmington (1954:39) states that “[t]he epigraphy of Roman North Africa is well known to be richer than that of any other western province.” He uses this as a basis for describing how large the extent of Romanization was. This view is mostly shared by Millar (1968:133) and Brown (1968:94) who argue that the widespread use of Latin indicates that Romanization was extensive. Kehoe (1984:242) also follows this track of thought on the subject, as does Varner (1990:11).

On the other hand, Woolf (1995:347) holds the view that Romanization was not widespread, and that it is through our own modern views of “westernization” that we have wrongly regarded Romanization as occurring, where it, in fact, has not. By this he means that in recent times, large parts of the world were colonized by European powers, and that native groups in these areas generally adopted western cultural practices. Thus, we may be at risk of viewing Romanization in North Africa as occurring in a similar way, whereas it could have been (much) different. Cherry (1998:76) points out that, although there is epigraphic and literary evidence in respect of Romanization among the urban elite, this evidence is lacking in regard to other social groups such as the rural poor.

Rives (2001:425-436) discusses how the native culture continued under the Roman rule, and even where Romanization did take place, this was merely superficial, for example, adopting a Latin style name to gain favours from bureaucrats. Quinn (2003:21) rejects the concept of

Romanization and argues that North African cultural changes took place because of Greek influences. It must be kept in mind that before the period of the Roman control, many Greeks traded in North Africa and colonized parts of this area. Furthermore, there was also contact between Greek elements, for example Greek merchants and mercenaries in Egypt, and native North Africans. Fentress (2006:27-31) rejects previous views on Romanization and suggests that native North Africans mainly adopted Roman economic practices, yet did not do so in respect of cultural practices.

With what I have indicated above, it seems that the debate concerning Romanization has changed over time. Although, as can be deduced from some more modern authors, for example Goodman (2007), a return to previous views still occurs. By this I mean that Goodman (2007) held a view similar to those shown above for older sources. Thus, this debate is clearly an active and ongoing one. As I have stated above, I view Romanization, as well as urbanization and land cultivation, as being connected in a relationship of mutual influence. Moreover, although Romanization may not always be the reason behind urbanization or land cultivation, the latter two may, in my view, possibly have led to the occurrence of the former. I will therefore progress from this point of view. I plan to use available data to form a more accurate view of the true situation for the period of the Roman rule in North Africa from the fall of Carthage to the Vandal invasions, thus 146 BC till AD 429. This is not really a new approach, as Goodman (2007) has also linked urbanization with Romanization, yet he did not go very far on this track of thought.

It also needs to be stated that a few authors, such as Garnsey and Saller (1987) hold the view that Romanization neither occurred, nor did native culture remain unchanged. They argue that a new culture was formed by the contact between the Roman and native North African cultures. A Romano-African culture, in this view, is not seen as a Romanized culture. Yet I hold the view that even if this so-called Romano-African culture was quite different from the original Roman and native cultures that it originated from, it still counts as Romanization, as aspects of the Roman culture were still adopted.

To a minor extent, I will also look at the incidence of climate change, as this may be related to urbanization, land cultivation, and Romanization. Furthermore, it could be relevant to the current debate on climate change. However, this will only form a minor secondary part of my research.

It must be kept in mind that the concept of urbanization, in the sense of the movement of nomadic or rural groups to urban areas, as well as agricultural practices leading to long-term land cultivation, such as seasonal planting, are factors which modern groups also encounter today. Along with this, the adoption of cultural practices that are not endemic to specific geographical areas or populations (Romanization may be regarded as an example thereof), is also a current topic of debate.

The main purpose of my research is to investigate the possibility that, on the one hand, urbanization and land cultivation in Roman North Africa occurred due to the influence of the Roman rule and Romanization, as well as an exposure to a more “civilized”¹ lifestyle and “modern”² amenities. On the other hand, it is also possible that, at the same time, urbanization and land cultivation acted as a catalyst for the increased Romanization in the region.

At this stage, I also wish to point out that my extensive literature search showed no sign of the investigation of any psychological concepts or the application of psychological approaches to the question of Romanization. I plan to make use of such an approach, to some extent. Groupthink, which is a concept referring to the tendency of a specific group to follow a certain type of mental construct (Greenberg 2011:376), is a concept that I plan to apply to the processes of urbanization, land cultivation, and Romanization. In this instance, I will attempt to show how a specific thought process could have led to an increase in urbanization merely by its presence at a sub-conscious level within a certain group.

1.2 Research Questions

In view of the premises discussed in the Introduction above, the following question will be addressed in my research: *What was the exact nature of the relationship between Roman governance, urbanization, land cultivation, and Romanization?* The secondary questions are:

- To what extent did Romanization take place?
- What changed in the daily lives of native group members as a result of the Roman rule?

¹ This is placed in inverted commas because teleological historicity is treated with some suspicion within various academic fields.

² This is placed in inverted commas to illustrate that I mean it is debatable whether technologically superior amenities can be seen as more modern.

- What methods did the Romans use to effectively colonize North Africa?
- How did Romans interact with the nomadic cultures of North Africa?
- Why did pre-Roman urban cultures – Greek and Punic, for example – not have such extensive effects on nomadic groups as the Romans did?

Although the evidence for pre-Roman cultures is limited, I will argue that there is enough evidence to draw the conclusion that native North Africans were not culturally as affected by these groups, as by the Romans. Raven (2003:1-31) and Pilkington (2013:359-365) provides evidence for this point of view.

Furthermore, I will attempt something quite new in this field. This will consist of applying the psychological concept of groupthink to this matter. Schaps (2011:351) states that there is an academic gap in the sense that psychology has not been extensively used in this field, and I wish to change this. To a lesser extent, I will also evaluate the possible role that climate change could have had in relation to an increase in land cultivation and urbanization.

1.3 Hypothesis

This study will argue that Romanization was the direct and indirect result of urbanization and land cultivation and also led to the increased occurrence of both in what may be called a two-way relationship. Moreover, it may also reveal in which native ways the North African culture was affected by the Roman culture. It further aims to provide evidence for the reasons why Romanization occurred. The extent of Romanization may also, as a result of this study, be more clearly noticeable.

1.4 Aims and Objectives

With this research, I want to use existing academic knowledge along with primary sources, such as Pliny (1942), Strabo (1967) and Herodotus (2003), to form a better picture of how native North Africans were affected by Roman colonization. Primarily, however, I wish to align the differing academic views into a more accurate assessment of the historical situation for the period, 146 BC to AD 429, when North Africa was under Roman control, specifically concerning the relationship between Romanization, land cultivation, and urbanization. Moreover, I want to demonstrate that a psychological method and a concept such as groupthink could be used successfully alongside other methods, for example source criticism, to add a new perspective to this field.

1.5 Significance of the Study

This research study aims to provide a clearer view of the nature of social interaction and its effects in respect of Roman “colonizers” and native groups in Roman North Africa. Furthermore, it attempts to bring the different views of academics, concerning the extent and nature of Romanization, together to form a truer consensus of the historical period, 146 BC to AD 429 and on the geographical area, namely North Africa, in question. Thus, this study should be able to serve as a more accurate foundation for further research concerning the geographical region in question during this time period. It will also focus on topics related to the spread of Latin and other aspects of Romanization. The study aims to reveal how urbanization and land cultivation caused changes in the daily lives of native North Africans, as well as how this occurred, and how widespread it was. Moreover, it may also reveal the reason why this took place. It may furthermore provide evidence for the ways in which Roman and native cultures interacted. This study focusses on the two-way influence existing between Romanization, on the one hand, and urbanization and land cultivation on the other, as well as how widespread it occurred.

1.6 Limitations

One of the main limitations in this study is the fact that I only have a basic knowledge of Latin and will thus, to a large extent, have to rely on the translations of others, in respect of most of the primary sources. This I overcome by using various translations of literary sources. Yet this is not an ideal approach and it can be seen as a limitation. Moreover, I am also limited in respect of internet access, and will have to request a large number of sources from other people and institutions, such as subject librarians and other libraries. In view of the extensive bibliography that I have managed to accumulate, this appears to be a lesser problem than one would suppose. A number of scholarly works are written in Italian, and as I do not have a grasp of this language, this is also a limitation.

Another limitation is, as in many historical studies, the lack of contemporary evidence. I plan to use as much existing evidence as possible. However, there is not much else that can be done to reduce this limitation, except attempting to reconstruct the period in question to the extent allowable by the available evidence. The period, 146 BC to AD 429, has its own particular difficulties in relation to the geographic area, which is Roman North Africa. There is clearly a lack of primary evidence, and even sources providing information about this

period were separated by a few generations from the events that they described. Furthermore, the main groups of interest – in this case, native North Africans – rarely produced historians, and of the few that existed, no work has been left intact, as these historians' work exist only through being mentioned by other authors. Most of the available primary sources do not concern themselves with the topic of this study. They only indirectly mention factors which can be relevant to my own research. These circumstantial utterances therefore must be found and interpreted. This is not only time-consuming and difficult but can also be inaccurate. Moreover, other types of non-literary evidence also need to be interpreted, which could lead to wrong assumptions being made. By this I mean that circumstantial utterances could appear to be supported by non-literary evidence when, in fact, this may be because the literary evidence is taken out of context. It should also be mentioned that because of the lack of literary evidence the role of non-literary evidence in this study could, perhaps, be seen as more extensive than that of the literary sources.

It should also be mentioned that evidence for the later part of the period in question, appears to be more widespread than that of the earlier part. Thus, a lopsided view may emerge, with data on perhaps, the 2nd to 5th centuries AD being overly represented. The topic itself, namely urbanization and land cultivation, and its impact and effects in relation to native North Africans, is not one that is addressed in a critical way by the literary sources referring to this period, as mentioned above. By this I mean that contemporary sources do not directly and intentionally address the topic of my study.

This leads to the use of critical historical reasoning, as well as the deductive method, which come with a host of limitations, for example misinterpretation, over-simplification, and confirmation bias. As said above, I argue for urbanization and land cultivation as catalysts for Romanization, as well as a two-way relationship existing between these factors. Therefore, I specifically plan to only touch on issues where there is a clear relation between urbanization, land cultivation, and Romanization. This will, of course, limit my study in many respects. One primary area may be the rejection of data from which inferences could have been drawn, because it is not related to urbanization and land cultivation, or its relationship in respect of Romanization.

1.7 Methodology

Based on my abovementioned arguments, it becomes clear that a literary-historical analysis would be best to implement in this dissertation. I will also make use of historical archaeology, iconography, and literary texts, especially historiography. I should also emphasize that the interpretation of iconography will be vital to this study. A number of other approaches will be used to a lesser extent, like source criticism and historical reasoning. Source criticism, as outlined by Garraghan and Delanglez (1946) consists of looking at when, where, and by whom the source was compiled. It further looks at the value of the source as evidence related to the topic in question, and from what previous sources it may have been produced. It also attempts to find out if it has been changed from its original form. Source criticism, as a method, is also supported by Schaps (2011). He gives the same explanation of source criticism as given above by Garraghan and Delanglez (1946). McCullagh (1984) lays down the principles for historical reasoning, and, quite frankly, these rely on simple deductive and inductive reasoning. Gotham and Staples (1996), in their work on narrative analyses, support the use of inductive reasoning. Iconography focusses on the analysis of visual sources by interpreting their contents. Of course, many of the same principles and techniques used in source criticism and historical reasoning are applied to iconography.

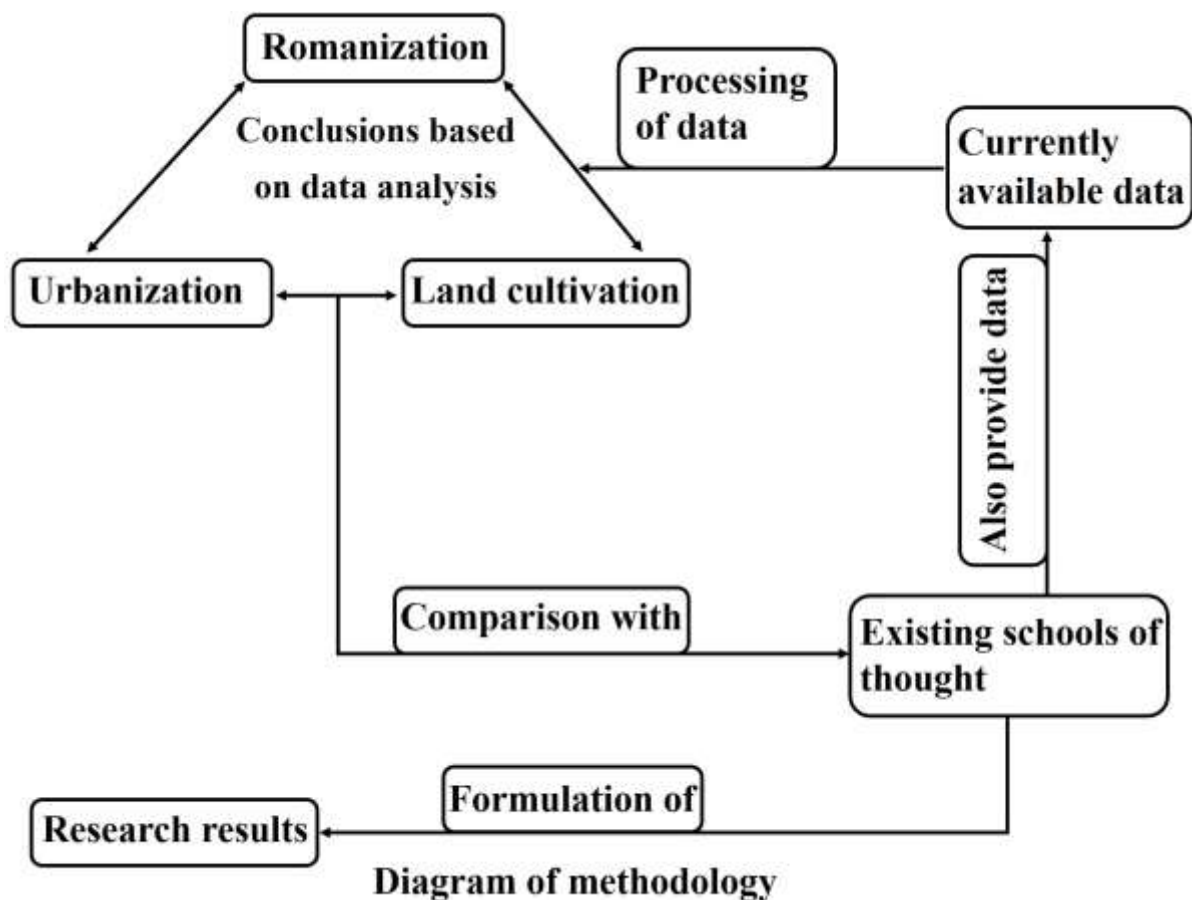
What I will therefore do, broadly speaking, is to critically analyse and evaluate the primary sources – both literary and non-literary evidence. I will collect as voluminous an amount of data as I can on my focus areas, and by using source criticism, I will decide on the value of each piece of information. I will then use the data that I view as factual, or likely, to draw my own conclusion on the matter. After that, I will again review the secondary sources, using source criticism, after which I will incorporate this data into my findings. I must add that during this whole process, I will also be making use of historical reasoning. I will then take these findings, as well as the evidence that they are drawn from, and subject them to inductive and deductive reasoning with a view to determine if groupthink did occur or not, in the context of relations between the Romans and native North Africans. Furthermore, if it did occur, I will describe the possible impact that it could have had on Romanization and its relationship with urbanization and land cultivation. Regarding the primary and secondary sources, I must add that although I will be using the primary sources, the use of secondary sources will contribute mostly to the main body of my research.

A brief description of deductive and inductive reasoning is needed at this stage. Mouton (2016:117) defines deductive reasoning as follows: “Deductive inferences or deduction involves drawing conclusions from premises (other statements) that necessarily follow from such premises.” He also states that inductive reasoning involves drawing conclusions from observations. Yet in this instance his explanation of the retroductive form of inductive reasoning would be appropriated: “Another form of inductive inference involves using inferences from observations or data in order to construct or ‘infer’ an explanation of such observations” (Mouton 2016:118). Craswell and Poore (2012:99) hold the view that “[s]olid evidence is a necessary but not a sufficient condition for strong argument. There also needs to be sound reasoning.” They also list various fallacies that occur when using deductive and inductive reasoning, which are too numerous to list here (cf. Craswell & Poore 2012:99). I will, of course, be using this list to ensure that I do not commit such errors in reasoning. From what is stated above, it should become clear that my approach is based on rationality and empiricism, thus a modernist approach. Brown (2005:6, 13) explains that modernism is the system developed during the later stages of the Enlightenment (late 18th century), and which dominated within historical fields of study till the middle of the 20th century. This methodological system makes use of empiricism and rationality which basically comes down to the use of induction in relation to provable facts that are found in sources.

For the structure of my study, I will also be using the works of Hofstee (2006), as well as Swales and Feak (2012). These works are focussed on academic research and writing and are authored by experts in this field. Equally useful in forming an academically acceptable document, is the short work by Le Roux (2019) which lays down various guidelines for academic writing.

Both Esser (1998:116-141) and Rose (2011:37-57) lay down various theoretical and methodological ideas and approaches surrounding the concept of groupthink. Some of these may prove useful for this study, although they are directed towards smaller groups. I believe that looking at the tendency of the social elite in native groups in North Africa towards adopting Roman cultural practices, may be one way of searching for the possible effects of groupthink, in the sense that this could point to the pro-Roman social elite’s partiality influencing the whole population. Furthermore, peer-pressure could also have played a role. Janis (1982; cf. also Rose 2011:38) puts forward various symptoms of groupthink. Searching for these, while evaluating their extent in native groups during the period, and in the area

under discussion, could lead to the development of accurate conclusions on the effects of groupthink. In searching for the extent of groupthink, I make use of exploratory data analysis to a minor extent, namely descriptive statistics. Carlucci and Wright (cited in Breakwell, Smith, & Wright 2012:163-191) give a description of these methods. These methods involve mathematical systems which I will apply to the available evidence in relation to groupthink. Moreover, as this evidence will be secondary in nature, I will keep in mind the guidelines given by Kumar (2014:196-197), in respect of using such data in relation to psychological research.



When it comes to inductive reasoning, it is difficult to define a conceptual framework, as the evidence leads to the conclusion. Yet even when it comes to other approaches, this is not an easy matter. The reader of a study, at times, has to search for the evidence of such a framework in the entire study. Green (2014:36) states that “many authors...have found that researchers often do not make the theoretical or conceptual frameworks of studies explicit in relation to how these guided their studies.” However, my aim is to form a basic conceptual framework.

1.8 Conceptual Framework

Romanization, during the period, 146 BC to AD 429, can be viewed in this specific study as the adoption of various Roman cultural practices, for example family structures, political institutions, and economic activities, as well as language. Moreover, this occurrence would have to be found among native groups in North Africa, such as the Numidians and Mauri. Urbanization can be regarded as the movement of rural populations into urban areas (Hornby *et al.* 2010:1643). In this case it would refer to the movement of nomadic (Gaetulians and Garamantes) and semi-nomadic groups (Numidians and Mauri) of native North Africans to urban centres. Land cultivation refers to the continuous planting of crops in a specific area, or the keeping of livestock in one area without seasonal migration. Moreover, in this study this practice has to be related to native North African groups such as those mentioned above.

The primary concern of my study is the extent to which Romanization took place, and how this was connected to urbanization and land cultivation. To research this, I will be using the methods described above. My premise is that Romanization has contributed to an increase in urbanization and land cultivation. Moreover, I argue that urbanization has also led to an increased adoption of Roman cultural aspects by native North Africans. Furthermore, land cultivation achieved a similar result in this respect as urbanization, according to my own views on this subject expressed in section 4.3.

By using the available data, I will be able to provide an academically acceptable proof for these views. From what is mentioned above, it becomes clear that my conceptual framework looks as follows:

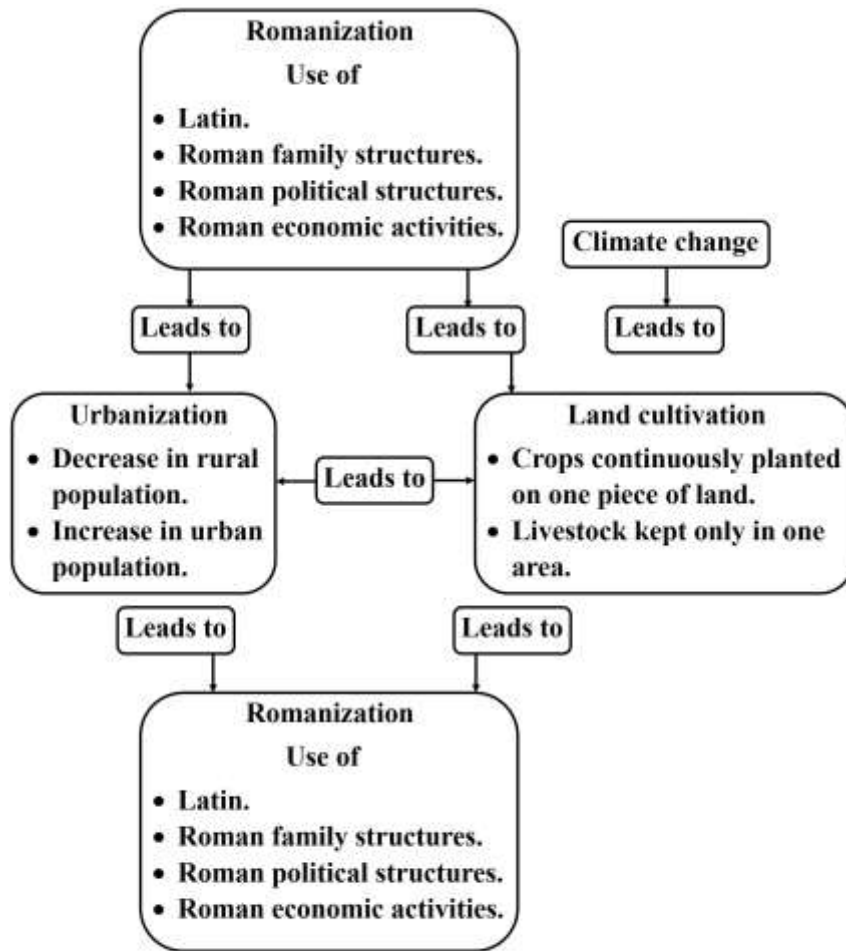


Diagram of conceptual framework

The role of groupthink is a secondary concept that I wish to explore. Basically, this means that in my own view, there was a generally prevalent idea or way of thinking, present among native North Africans, which caused an increase in Romanization. To prove this theory, I will be relying on the methods highlighted under the Methodology section to do so, using literary-historical analysis, source criticism, and historical reasoning.

From the basic conceptual framework given above, it is evident that the views guiding my study are mainly sociological and political in nature, although psychological and even agricultural perspectives are also present. Furthermore, from the Introduction and Literature Review sections, it can be deduced that there are mainly two schools of thought on this topic, and that their theories form the basis of this study. Thus, for example, one may regard the addition of certain aspects, such as the use of Latin, shown in the diagram above, in connection with Romanization, as an illustration of how I plan to use existing theories as a foundation to build my study on.

I have already mentioned how I am viewing the variables and concepts of this study in respect of their relationships to each other, but I have not yet mentioned the ways in which I aim to prove the existence of such relationships. This is because, in my view, the previous section has already addressed this matter fully. It should also be kept in mind that what I have discussed above is only a basic conceptual framework for the main topic of my study. As I have indicated above, the conceptual framework can often be found only in the study as a whole, with a special focus on the Introduction and Literature Review sections. By adopting this approach, I have provided a basic conceptual framework to assist in guiding my study, without an unnecessary repetition of information. This approach will hopefully also allow a reader to follow my train of thought, as well as understand the study itself with a greater degree of ease.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

It has been briefly discussed in Chapter 1 that there is a lot of debate around this topic. This debate represents two schools of thought: In the first place, the view that Romanization was widespread and second, the view that Romanization was a minor occurrence. Various reasons are provided by authors for their points of view, although a clear trend towards regarding Romanization as not having been a major social factor, is evident. As discussed under the Methodology section in Chapter 1, I have used historical reasoning to a large degree, while analysing the works below. Yet this will be indicated clearly in Chapter 4, as the current chapter concerns itself more with showing what knowledge already exists in this field, not so much how I have used it. I have broadly stated of what use the various authors are in relation to the study. I have also grouped the authors into categories according to their value in relation to this study, although these are not exclusive categories. Hence, the listing of an author under one heading does not mean that I did not make use of his/her work in relation to other categories.

2.2 Literature Review

2.2.1 Primary Sources

Pliny the Elder's work *The Natural History* (Pliny 1942) mainly covers the natural history, as he calls it, yet he is relevant when looking at the climatic conditions in Roman North Africa. Sallust, in his work *The Jugurthine War* (Sallust 2010), provides a description of the Jugurthine war of the late 2nd century BC, of which he was a near contemporary. Unfortunately, this history does not relate much about urbanization or Romanization. We can, however, use it to some extent when looking at un-Romanized native groups, and then search for differences which may point towards a Roman influence. Moreover, it can highlight the nature of the cultural interactions between Romans and non-Romans. Yet it should be kept in mind that Sallust could be biased because of cultural pride and this may have led to him incorrectly interpreting and relating aspects of native culture and Roman interaction with natives. Augustine's *Confessions* (Augustine 1955), although written for religious reasons, can be used in some ways to form a picture of certain aspects of North African life, for example native cultural practices. Augustine's other works, namely *Epistula ad Romanos*

inchoata exposition, *De Magistro*, and *Enarrationes in Psalmos* (Brown 1968) are relevant as they are cited by later authors. Appian's *Libyca* (Ilevbare 1974) and Polybius' *The Histories* (Martin 2011) are also used by modern scholars and exact references to them appear in my study where they were used in this connection. The same applies for Callimachus' *Apotheosis* (Rovik 2002). I mention Appian and Polybius together because they both provide data for modern authors in connection with pre-Roman Punic relations with natives. It should also be mentioned that Polybius may have been one of Appian's sources. Thus Appian's work could perhaps not be seen as a separate source corroborating that of Polybius. Strabo's *Geography* (Strabo 1967) relates various aspects concerning social habits of pre-Roman groups and is thus relevant to the relation of pre- to post-Roman conquest cultural practices. Corippus, who wrote an account in poetic verse (Corippus 1998) on the Eastern Roman Empire's attempted re-conquest of North Africa in the 6th century AD, is used to some extent, as he relates to the post-Roman native culture. This applies to illustrating the effects, or lack thereof, of Romanization. Herodotus' *Histories* (Herodotus 2003) is of little use, yet his description of pre-Roman native North Africans can be of some general use, although it should be viewed very critically. Moreover, Herodotus also predates the period in question by two centuries. Tacitus' *Annals* (Tacitus 2004) provides quite a good historical description of the activities of Tacfarinas in North Africa, although this is focussed on the war between Tacfarinas and Rome. Tacfarinas was a Numidian chief who revolted against Rome in AD 17 to 24. Apuleius' *The Defense* (Apuleius 2015), who was born in North Africa, is a fairly accurate source for this period, especially in respect of social aspects surrounding women. I will mainly use this work of his and avoid his fictional works to a large extent. I have chosen to also list as part of my primary sources, a few modern authors, and in each case, I will explain why, in my view, it is warranted. Bruun and Edmondson (2014) in *The Oxford handbook of Roman Epigraphy*, gives various pictures of epigraphic works, and these works, because of their contemporary nature, are listed here. The Heidelberg Academy of Sciences and Humanities has a large database consisting of photographs of Roman inscriptions. They provide access to these photos on EDH (Epigraphic Database Heidelberg), which can be found online. Saastamoinen (2010) also provides a large number of inscriptions in his doctoral thesis.

2.2.2 Secondary Sources

2.2.2.1 Land cultivation

Graham (1902) not only views Romanization as widespread but goes further by stating that this was state policy. He does this in his book on the Roman occupation of North Africa, and although he uses archaeological sources, his interpretation of these is clearly biased by his own views on this matter. Yet he also provides evidence for land cultivation. In relation to Graham's predispositions I should briefly mention that he held an inflexible view of British imperialism and colonization as the natural result of a superior culture, and he transferred these views onto the Romans when he wrote his historical works. Murphey (1951) discusses the decline of North Africa and mentions various aspects of land cultivation and urbanization during the Roman period. I agree with his interpretations which are academically based and to a large extent unbiased, although slightly influenced by the prevailing view on colonization during this period, as discussed later.

Smith (1998) discusses the use of alternatives to wood fuel in late Roman North Africa, and relates this to the agricultural system, which thus makes him a useful source in respect of land cultivation. The fact that he mainly provides evidence for his own study and does not draw major conclusions directly relevant to my study, removes the risk of bias on his part. The same is true of Gibbins (2001) who uses the archaeological evidence provided by a 3rd-century shipwreck to bring Roman North African exports in relation to the larger economic and political environment of the Roman Empire. Some of the evidence that he provides may be useful regarding land cultivation.

Stone (2014) illustrates the degree of port structures in North Africa during the Roman period. This serves as an indication of the extent of land cultivation, as these structures were built mainly for the storage and export of agricultural produce. Sycamore and Buchanan (2016) discuss the landscape surrounding Carthage during different time periods, with specific reference to archaeological research done in this area. This is relevant to my study because it relates information on land cultivation, as well as various urban aspects. Once again, the three authors mentioned in this paragraph are relevant, mainly in respect of data, although the conclusions of Stone (2014) are also referred to later.

2.2.2.2 Urbanization

Mattingly and Hitchner (1995) summarise the major finds and theories related to Roman North Africa, covering research from 1970 to 1995. They not only provide descriptions, but also discussions of methodology. They are useful in allowing one to easily follow the evaluation of the debate surrounding Romanization, as well as providing insights into various methods used by previous authors. Moreover, they are useful, specifically in respect of urbanization.

2.2.2.3 Romanization

Millar (1968) deals with the use of language in Roman North Africa, with a focus on Libyan, Punic, and Latin. Although he is more critical than the previously mentioned authors, he still concludes that the use of Latin, and therefore Romanization, was widespread and dominant in North Africa. Mattingly (1987) clearly states that he does not agree with the theories on Romanization and does not view it to have occurred widely – a conclusion which, in my view, is not supported by the evidence. Meyer (1990) discusses the nature of epigraphic evidence in connection with Romanization, which she views as having been fairly widespread in North Africa. The large amount of epigraphic evidence, as shown in this study, could point to an accurate deduction. Cherry (1998) continues this clear move away from previously held theories on Romanization. In his book, he also points to the lack of evidence for Romanization and argues that it was not widespread in North Africa. He bases his opinion on the lack of the direct mentioning of Romanization. Moreover, the numerous sources mentioned throughout my study which indicate Romanization appear to confound Cherry's views (Cherry 1998).

Norman (2002, 2003) uses archaeological evidence in the form of excavated burial sites to look at the nature of Roman views on children. She focusses mainly on North African burials, and relates how these clearly reflect, in her view, the non-Roman native cultures. This suggests that she also does not share the view that widespread Romanization occurred. Although her research is of an academically respectable nature, it is limited in extent and therefore I cannot completely agree with her conclusions. However, her delicate treatment of the subject may have distorted my interpretation of her work. In her book, *Roman Africa?*, Quinn (2003) discusses the concept of Romanization in respect of North Africa. She criticizes the theories of previous authors, and shows that she does not view Romanization to have been widespread. She uses primary evidence available on this area and discusses what she calls

“traditional approaches on acculturation.” I would agree with her that authors are/were influenced by their social environments. Yet one’s own social environment does not necessarily discard classical evidence. If such evidence points towards Romanization, an author’s unbiased conclusions based on scientific research and methodology, can be accepted.

Lagaard (2008) has written a study in which he takes a look at the Romanization of Carthage and Lepcis Magna. His approach is not so much one of looking for signs of Romanization, but rather to find Libyan-Phoenician elements within the available epigraphic sources. He states, as most of modern authors do, that Romanization took place mainly among the urban elite, and was not widespread. As his study clearly has an urban focus, he is very relevant to the topic of my own study. However, this extreme focus on urban areas may have caused him to underestimate the general extent of Romanization. Straughn (2013) is of use in connection with evidence for Romanization, specifically mosaics. McLaughlin (2015) mainly studies the social and cultural changes occurring over time among Roman auxiliary soldiers. Although he does not only focus on North Africa, this region is included in the scope of his doctoral thesis. It is quite clear that many of these auxiliary soldiers, especially those present in North Africa, were native North Africans. Therefore, how they were Romanized, and the role that they have played in further Romanization, do pertain to this study.

2.2.2.4 Connection between Romanization, land cultivation, and urbanization

Warmington (1954) discusses the nature of municipal patronage in Roman North Africa, and how this changed over time. It is, once again, quite clear that he also takes Romanization as being logically widespread in North Africa, and views his task, academically, as one of illustrating points within his framework, rather than debating or challenging it. His research is still useful in respect of the connection between urbanization, land cultivation, and Romanization. Garnsey (1970) provides evidence for marriages between Roman soldiers and native North Africans, which he views as widespread, thus contributing to the spread of Romanization. Moreover, he also provides evidence in respect of the connection between Romanization, urbanization, and land cultivation. I agree with his conclusions based on the evidence, although he may have been influenced by the prevailing academic schools of thought on this matter, as mentioned in my introduction. The article that Garnsey wrote in 1971 (Garnsey 1971) is of use concerning the connection between Romanization and urbanization/land cultivation. Brunt (1975) discusses the extent of land ownership by Roman

elites in North Africa. His research is useful in relation to the connection between urbanization, land cultivation, and Romanization.

Cordovana (2012) mainly deals with the social effects of the “*limes*” in North Africa, as well as the *nundinae*. She holds the view that Romanization was a far more complex, and less general phenomenon than previous authors argued, and is useful as a source for Romanization, land cultivation, and urbanization. However, in my view, the evidence appears to contradict her views, although I completely agree that Romanization was an extremely complex phenomenon. Shaw (1981) mainly deals with the rural market and political economy of Roman North Africa. He also covers the *nundinae* and the role that it played within a colonized Roman North Africa. It is useful to this study as a source of information on the interaction of urban and rural population in North Africa.

Rubin (1991) discusses the nature of land cultivation and settlement in desert areas and includes North Africa. His article is valuable to this study because of his description of agricultural practices in the area of focus, but also in respect of the connection between land cultivation, urbanization, and Romanization. Tidemann (2009) covers the appearance of birds in North African mosaics, drawing the conclusion that native North Africans were mainly responsible for creating mosaics in Roman North Africa. She further, through the description and analysis of these mosaics, casts light on various areas of the local North African daily life. This description can be used to search for signs of Romanization or a lack thereof, as well as its connection with land cultivation/urbanization.

2.2.2.5 Works of multiple or other importance

Canter (1940) highlights various Roman achievements in North Africa, such as road construction, urbanization, and various other “civilising” factors, as he refers to it. It is quite clear that he takes widespread Romanization as the norm and does not even appear to contemplate an alternative for this view. In line with most scholars of his time, Hammond (1959) argues that Romanization was widespread. Duncan-Jones (1963) provides figures for the urban population of Roman North Africa, while Brown (1968) draws a comparison between the spread of Christianity and the native North African culture. He states that the rapid spread of Christianity was the result of the widespread Romanization of North Africa. Moreover, he holds the view that this was possible because of the use of Latin throughout North Africa. Varner (1990) discusses the assimilation of the Roman culture by native North

Africans in the light of portrait stelae. He also shares the view mentioned by previous authors, namely that Romanization was quite widespread in North Africa.

Brett and Fentress (1997) wrote a book on the subject of Berber history, and clearly state that they view Romanization as having been prolific among native North Africans, based on the available evidence. I agree with their view. Mattingly (1996) criticises past theories on Romanization and highlights academic developments regarding this topic. His views on Romanization are that it did not occur generally. I differ from his views concerning the evolution of this debate. His argument consists of three parts, namely colonial, post-colonial, and new perspectives. He claims that older studies – pre-1970 – were mainly negatively affected by views on colonialism occurring during that period. With this I do agree. He also considers studies from around 1970 to the early 1980's as being influenced by post-colonial views. I do not completely agree with that because, as can be seen from my literature review, only a limited number of studies argues for this view, while the majority does not. As I have already highlighted in my introduction, his views on new perspectives are much the same as, for example, the views of Garnsey and Saller (1987) or Rives (2001).

Cherry (1997) uses epitaphs to show the frequency of marriages that took place between Romans and native North Africans, indicating how widespread Romanization was. He, however, concludes that such marriages did not occur much, and that Romanization was not as widespread as some authors argue. He also refers to the difficulty that is faced by historians who attempt to find proof of Romanization by using epitaphs. It is evident from my use of his figures below that I reason that he may have misinterpreted the evidence to some degree. In his discussion of the imperial cult and native tradition, Rives (2001) argues that Romanization was less of an occurrence in North Africa than previously thought.

Annandale (2001) discusses the impact that the modern post-colonial theory had on historians' views concerning Romanization in North Africa. He also does not agree with previous views of widespread Romanization. This once more serves as an example of a changing thought around this matter. Raven (2003) claims that Romanization did take place to a major extent. Moreover, she also covers pre-Roman cultures, which may be of value to this study. Her focus on urban development may also prove useful.

Cilliers (2006) gives various possible reasons for the disappearance of the Roman culture from North Africa after the Arab conquests which took place in the 7th century. She mainly discusses the period between the 2nd and 4th centuries. Under the section *Romanisation merely a fragile superstructure?* she makes it clear that she also views Romanization as taking place mainly at an urban-upper-class level, therefore not being as widespread as believed by other scholars. Moreover, she also relates that various other authors have the same conviction, including Frensdorff (1952), Courtois (1955), Shaw (1979), and Lepelley (1980). This may be true, although these authors do not reflect a general scholarly view on this matter. I maintain that general views on this matter can be regarded, when one looks at the various authors indicated above, to have changed slowly over time. It can be stated that Romanization was viewed by modern authors, writing before 1990, as being widespread. The reverse is clearly true from then up until the present, as can be seen in the works of several authors referred to above, and those whom I will review below.

Fentress (2006) discusses the Romanization of native North Africans, specifically the Berbers. It is quite clear that she also holds the view that Romanization was not widespread in North Africa. Cilliers (2007b) is also of the opinion that it was not widespread. Heather (2007) gives a brief history of the Roman rule in North Africa and highlights its economic importance in the Roman Empire. He also deals briefly with its climate. Furthermore, he claims that Romanization was not a planned Roman governmental policy, but rather the result of conquests. Moreover, he points out that it was mainly the people belonging to the rich social class who could afford a proper Roman education. Thus, he also appears to view Romanization as more of an upper-class phenomenon.

Sears (2011) views that Romanization was widespread, mainly based on the number of Roman civic buildings and monuments. This is one instance of a fairly recent author holding this view, and clearly goes to show that although many scholars now support the view that Romanization was not widespread, the debate is still ongoing. Sears is of use in this study, as his work is relevant to the topic of urbanization. Hobson (2012) discusses the economic growth in Roman North Africa. He discusses the inequality between social groups present in North Africa and views the possibility and benefits of Romanization as mainly open to the urban elite, and not widespread among the lower classes.

Vanacker (2014) rejects previous theories on an interaction between nomadic groups and the Romans in North Africa. He makes use of literary, epigraphic, and archaeological sources, as well as techniques derived from anthropology, to explain how complex and dynamic the integration of native North African groups into the Roman political and economic system were. Furthermore, he rejects the view that urbanization was the driving force behind Romanization. I do not agree with his view, as the available evidence suggests that his conclusion is not supported by historical facts. Yet it is still clear that he views Romanization as less widespread than what previous authors held. It must be kept in mind that the aim of this study is to determine whether urbanization and land cultivation were the driving forces behind Romanization and that a two-way relationship existed between these concepts. The aim is to provide such an in-depth study, although with a different purpose in mind. Wester-Ebbinghaus (2016), while writing about native North African groups, contends that very little Romanization took place among such groups. Warmington (2017) views Romanization as being more general in North Africa among native groups.

The abovementioned authors deal directly with the topic of this study and illustrate the way in which academic thought has developed over the years. The works cited below provide evidence for this study, even where they are not directly concerned with urbanization and land cultivation, or the Romanizing effects of these. In each case, I will explain how these works are useful for my study.

Johannesen (1954) discusses the North African textile industry during the Roman rule. As he also relates evidence on urbanization and even Romanization during his discussion, parts of these can be used as evidence in this study. Eddy (1979) has written a research article on climate, which includes Roman North Africa. It is relevant concerning climatic conditions in North Africa during this period and it is specifically useful in respect of land cultivation. Shaw (1980) discusses various points on archaeological methodology and technique. I did not include this work among those that discuss Romanization, as the latter is not really its focus. Shaw's article is useful because of the interpretation of existing archaeological evidence on Roman North Africa. Kehoe (1984) discusses the management of Roman estates, both private and imperial, in North Africa with particular reference to the "Lex Manciana." This is of course relevant to the issue of land cultivation. Kehoe (1989) has also written a short article in which he discusses approaches to social history. He does this mainly in respect of Egypt, but also North Africa (in the Roman classical sense, excluding Egypt, which is usually viewed as

part of the Near-East). His work is relevant to this study, in that his discussion pertaining to approaches to social history can help to direct my own methods.

Woolf (1995) discusses Romanization in general, specifically with a focus on Gaul. His work is only useful in as far as his views of Romanization in general go, and for this reason I have decided to rather mention him here than among authors who deal directly with Romanization in North Africa. Brett (1997) uses archaeological evidence to describe the pre-Roman Punic culture, which is useful to the topic of this study, as it allows a comparison between cultural practices which were evident in the times during pre- and post-Roman occupation.

De Marre (2005) takes a look at the marital situation of women in Roman North Africa and does this in the context of Romanization, thereby providing useful information in this regard. Temin (2006) is of little direct use, although indirectly he contributes to this topic through pointing out the role played by North Africa in the Roman economy as a whole. Geraghty (2007) mentions the contribution that North African grain and wine made to the Roman economy. This can be regarded as useful in highlighting the extent of land cultivation in North Africa. Cilliers (2007a) discusses the role of Roman North Africa in the transmission of medical knowledge, and also makes reference to the nature of schooling in Roman North Africa, as well as discussing several contemporary personalities. These topics make her useful in respect of Romanization and in providing further evidence for its spread.

Summer (2007) discusses the history of Roman military clothing for the period, 100 BC to AD 200, and touches on what Roman soldiers in North Africa might have worn. His work is relevant concerning the adoption by natives of Roman clothing, and *vice versa*. Simkins (2008), in his history of the Roman army, discusses Legio III Augusta at Ammaedara in Roman North Africa and is thus relevant to the possible Romanization in this area. Penrose (2008) gives a brief history of Roman military activities in North Africa, as well as the nature of the enemies that they faced there. This can provide some information in respect of the native culture before the Romans conquered North Africa. Whitby (2008) centres around military aspects and shows that Roman North Africa became an even more important part of the Roman Empire after the Germanic invasions of the early 5th century AD, as it was untouched by these invasions, until the Vandal invasion. This goes to illustrate the importance of this area and may corroborate earlier authors' views of the Roman government, taking a deliberate hand in Romanization. It must, however, be stated that evidence for this is limited,

but it is proper to mention it nonetheless. MacDowall (2008) mainly deals with the way of life of Roman infantrymen between AD 236 to 565, yet indirectly gives an idea of what these men's lives might have been like in North Africa, as well as the nature of their relations with native groups, and is thus relevant to this study.

Campbell (2008), although writing a book on siege warfare, is relevant to the topic of urbanization. Martin (2011) is useful in connection with the relationship between Punic and native North African cultures. Leone (2012) looks at the water management in Roman North Africa, with specific reference to agricultural irrigation, and relates many cultural aspects in relation to this, and it is therefore relevant to this study.

Fenwick (2012) gives a brief history of archaeological studies conducted in North Africa. This is useful in the sense that it reminds one of the possible biases present in works conducted during certain periods. This will help me while interpreting the views of other authors on certain primary sources. Quinn (2013) highlights the fact that North Africa was an isolated part of the Roman world, while also indicating that, at certain times, it served as a hub for international connections. She relates some aspects of native and Roman interaction in this area, which makes her useful for this study.

Pilkington (2013) has written a book on Carthage in which he uses archaeological evidence for deductive purposes. This book is very important to form a picture of the pre-Roman non-native North African groups and their relations with the indigenous groups, for example the Numidians. Hoyer (2013) holds the view that the spendings of the so-called elite social class led to North Africa's prosperity and provided a market force as well as increased monetization. Moreover, he links this to the ways in which urban and rural areas functioned together, and this does fall within the scope of my study. Butcher (2013) uses methods, such as archaeological deduction, which can be useful to this study. However, the fact that he focusses on the Lebanese culture, means that he is not directly useful in respect of North African native groups.

Stephenson (2014), in discussing the sacred nature of curtains, gives a few details on North African cultural practices. He should thus not be rejected. Cilliers (2014) discusses the history of several North African cities and makes use of archaeological evidence in the form of mosaics to depict various areas of urban life. This is, of course, relevant to the topic of

urbanization. Mitchell (2015) covers the movement of parasites across the Roman world, and not only connects this with Romanization in general, but also provides information about Roman North Africa in this respect. He used archaeological methodology to conduct his study.

Land (2015) provides a short description of the importance of North Africa to the Roman economy. McGill (2017) presents a brief overview of the Punic wars, which is relevant in respect of establishing a historical context for this study. Daniel-Hughes (2017) uses an analysis of Tertullian's writings, primarily his *Apology*, to draw conclusions concerning certain aspects of Christianity. Indirectly she also relates some aspects of North African Romanization and can thus be used for this research project. Maddy-Weitzman (2017) focusses on the later native North African history, and also briefly covers native North Africans' relations with, and under the Romans. His work can be used to form a basic concept of Roman and native relations. Hingley (2017) compares Roman frontiers, including North Africa and Euro-pean borders. Furthermore, he mentions various effects and affects that such borders have in respect of native groups and is thus relevant to this study.

The following works provide a general view on Roman North Africa and are useful for this reason: The *Encyclopedia of African History*, edited by Shillington (2005) provides a brief history of Roman occupation of North Africa; Warmington, Abun-Nasr, and Brett (2008) wrote a fairly detailed history of North Africa for *Encyclopaedia Britannica* and briefly includes its period under Roman control; *The American Library of Congress* (2011, 2013, 2016) has published several basic articles on Roman North Africa; Law (2008), in *The Cambridge History of Africa*, provides important information about North Africa during the Roman period; and the History Files (n.d.) is a website which also includes a very brief list of important events in Roman North Africa.

The works indicated below are useful in connection with groupthink. Tetlock (1979) has written an article which assists in tracking groupthink via political decisions. Schafer and Crichlow (1996) have done an article which includes findings of other authors in respect of criteria for groupthink. The book written by Gladwell (2000) is useful in showing how groupthink occurs. Goldman (2004) has done an article indicating, *inter alia*, the reasons behind social decisions in connection with groupthink. Solomon's article provides evidence for the spreading of groupthink within social groups (Solomon 2006). Greenberg (2011)

provides evidence for groupthink as a concept. Grieve, Van Deventer, and Mojapelo-Batka (2006) also provide criteria for groupthink. Mynhardt (2011) is useful in showing how groupthink relates to people outside a specific group. The article of Pautz and Forrer (2013) is valuable because of the role that social elites play with relation to groupthink, while the article of Sims and Sauser (2013) highlights the self-expanding nature of groupthink. Harel, Mossel, Strack, and Tamuz (2019) explains the role that learning has with reference to groupthink.

The authors mentioned in this paragraph relate to climate change. Berndtsson (1987) is suitable regarding the climate of modern Tunisia. Reale and Dirmeyer (2000) deal with the Mediterranean climate during the Roman classical period. Fagan (2010) is particularly of aid as he connects climate change with urbanization and land cultivation. Büntgen, Tegel, Nicolussi, McCormick, Frank, Trouet, Kaplan, Herzig, Heussner, Wanner, Luterbacher, and Esper (2011) discuss climate change during the classical period in relation to deforestation. Hassini, Abderrahmani, and Dobbi (2011) highlight weather conditions in modern Algeria. Cheddadi, Nourelbait, Bouaissa, Tabel, Rhoujjati, Lopez-Sáez, Alba-Sanchez, Khater, Ballouche, Dezileau, and Lamb (2015) discuss the human impact on the Moroccan climate during the Roman period of control. Abagandura and Park (2016) can be used because of their reference to agricultural data. Elliott (2016) refers to the Antonine plague. This article contains useful data on volcanic eruptions and its connection with climate change. Ait Brahim, Saidi, Khaoula, Sifeddine, and Bouchaou (2017) relate about the climate of the area now called Morocco.

The following works are related to evidence for pre-Roman Greek relations with native North Africans: White (1961), Cabanes (2000), Rovik (2002), Couvenhes (2012), and Bouffier (2016).

The works listed in this paragraph are related to Punic-native relations prior to the Roman rule in North Africa. Albright (1941) provides details in respect of Punic inscriptions. Carpenter (1958) provides evidence for dates with reference to the Punic occupation of African areas. Ilevbare (1974) uses contemporary literary sources which makes him quite valuable for this study. Spagnoli (2004) refers to structural evidence on this topic. Bridoux (2014), Papi (2014), Telmini, Docter, Bechtold, Chelbi, and Van de Put (2014), Van Dommelen (2014), as well as Younès and Younès (2014) have written articles relating to this subject. Their works provide a large amount of evidence related to this topic as well as various interpretations of

evidence which I have highlighted in the relevant chapter. Nisan (2015) has also done an article which relates to this matter. Although I do not agree with him and have the conviction that a pro-Hebrew bias may have influenced his findings, he is valuable in providing a different point of view to other authors. Aubet (2016) has dated the Punic activities in North Africa, but I reason that her conclusions are not generally supported by the current evidence.

2.3 Conclusion

From what has been indicated above, it becomes clear that there are mainly two viewpoints on this topic, namely that Romanization was widespread, and the view that it was not. It is also clear that most of the works mentioned above, make use of archaeological evidence to base their views on. It must be stated that this can lead to a large amount of bias when studying an author's work. A case can even be made for certain authors bending such evidence to fit their own preconceived ideas, rather than being led by evidence itself. Thus, care should be taken when using these sources, while the evidence which they provide must be regarded in the correct light, not necessarily in the way that they would wish for such evidence to be interpreted.

CHAPTER 3

HISTORICAL OVERVIEW

3.1 Introduction

What follows is a brief discussion of historical events of major importance, with reference to the North African history. I will state what we know about pre-Greek and Phoenician North African groups which, it must be stated, is quite little, because only a few primary sources exist about these groups. I will then briefly deal with the pre-Roman, Greek, and Phoenician history in North Africa, with a focus on how Rome became involved in the North African history. I will also describe the major events occurring during the period that forms the focus of this study. This is clearly not a comprehensive history, and I will only focus on events that warrant inclusion in such a general background. Consequently, one may well find it lacking in detail, but its function is merely to serve as background for the specific time period in question.

3.2 Brief Review of North African History

Prior to the Greek and Phoenician colonization, the area which would later become known as Roman North Africa, was populated mainly by nomadic tribes. Little is known about these tribes, and what is known, mainly stems from later sources, most of which are not accurate historical works in the modern sense. Herodotus (*Hist IV:167-205*) refers to various native groups who inhabited North Africa after Greek cities were founded there, for example Cyrene, Plataea, and Euhesperides. Although one may assume that native North Africans had not changed much prior to this period, there can be no certainty about this. Moreover, Herodotus' work (*Hist*) must be read with caution and compared to more reliable sources, keeping in mind that he is well known for including fables and legends within his texts. Works of other authors, such as Strabo (*Geo*) and Pliny the Elder (*Hist Nat*) can also be used in a similar way as Herodotus' *Historiai*, but again do not provide a critical view concerning pre-Greek and Phoenician native groups. Thus, it may be best to assume that before the arrival of Greek and Phoenician settlers, native groups were most likely nomadic. Although those groups closest to Phoenician and Greek cities adopted some of their cultural practices, the majority of native groups did not change much in respect of cultural practices (cf. Law 2008:116-140; Raven 2003:7-12).

Law (2008:118) relates that the earliest Phoenician articles found at Carthage date to *ca* 750 BC. Thus, although we cannot argue with accuracy when the Phoenician occupation occurred, we can well claim that it took place sometime during the 8th century BC. Law (2008:108) further recounts that the most likely date for the founding of Cyrene by Greek settlers was during the late 7th century BC. Carthage quickly became the leading western Phoenician city, and various Phoenician cities founded in North Africa can be regarded as under the overlordship of Carthage. Through expansion into Greek territories in Sicily, Carthage came into conflict with Rome in 264 BC. Prior to this, friendly relations between the two expanding nations were maintained. Although the Phoenician impact on the native North African culture appears to be limited, various areas of North Africa, especially those surrounding Phoenician cities, were occupied by them, and the native groups in these areas were subjugated. Carthage centred its empire on maritime trading and hence had a fairly strong navy, but when it came to land-based forces, Penrose (2008:55) argues that Carthage relied on mercenary forces and levies. These levies consisted to a large extent of native North Africans enlisted to wage war when necessary. Therefore, we wonder how much cross-cultural influences occurred while these natives served in the Carthaginian armies. This is, however, not a question for which an answer is readily available.

The first Punic war between Carthage and Rome lasted from 264 to 241 BC, and mainly occurred because of the Carthaginian expansion in Sicily. Sicily, being fairly close to Italy, which the Romans had by this time under their sole control, could not be left in the hands of such a powerful potential rival. Thus, when the Mamertini of eastern Sicily asked for Roman aid, the Romans were quite happy to have an excuse for opening hostilities with the Phoenicians. After a lengthy campaign, and various naval victories, Rome finally forced Hamilcar Barca, a prominent Carthaginian general, to negotiate a peace treaty. The most noteworthy occurrence during this war was a failed invasion of North Africa by the Romans, and the fact that, as part of the peace treaty, Carthage had to completely abandon Sicily.

This last detail is of special importance when one considers that it was one of the main causes of the second Punic war, which lasted from 218 BC until 201 BC. Other causes included a Carthaginian discomfort with Roman expansion, and the possible wish of Hannibal Barca, a son of Hamilcar, to avenge his father's defeat at Roman hands. This war was conducted mainly in Spain and Italy, yet during the final phase, Africa was once again invaded by Roman forces. Unlike the previous war, this invasion was successful, and the Carthaginians

once again had to agree to a peace treaty. It was during this second invasion that Rome allied itself with a native North African Numidian leader, named Massinissa.

In the conditions, it was stipulating that, in the peace treaty with Carthage, Massinissa would be granted all lands held by his ancestors, and that Carthage could not offer military intervention against his encroachment on their territories, which led to the third and final Punic war. This was a fairly short war, lasting from 149 to 146 BC. Carthage, after receiving no relief from Rome concerning Massinissa's expansions into Phoenician areas, went to war with him in 150 BC. The Romans viewed this as a breach of the previous peace treaty, and promptly declared war. By 146 BC, after a lengthy siege, Carthage was defeated, and the city itself destroyed. An interesting point is that, although Rome had native African allies, most natives sided with Carthage itself, and Phoenician political, religious, and lingual aspects remained prominent within the native groups previously under Phoenician influence. According to Law (2008:175), this lasted for a few centuries. Raven (2003:82-83) narrates that although large areas of Carthaginian territory were sold to Roman citizens, only a few Romans actually settled in Africa. Most of these Romans simply made use of existing native labour and managed their holdings from Italy. Some natives who fought for Carthage and surrendered to Rome, were also given land which formerly belonged to Carthage. Moreover, seven Phoenician cities in North Africa were granted land which had belonged to Carthage, as a reward for siding with Rome. This may go some way towards explaining why Phoenician influences still occurred in respect of native North Africans.

It was during this period, directly after 146 BC, that we may view North Africa as divided into four main parts: First, there were areas under direct Roman control; second, there were areas under the control of free cities; third, there were the two African Kingdoms of Numidia and Mauretania; and lastly, there were a number of smaller native groups around the borders of Numidia and Mauretania. These groups remained nomadic, while the tribes forming the Numidians and Mauri became less nomadic to a certain degree. This may have been because of the Phoenician influence, especially in the case of the Numidians who often served in Carthaginian armies. According to Raven (2003:51), "[t]he Romans themselves were dragged against their will into dynastic squabbles." This also refers to the Jugurthine war. Massinissa, Rome's Numidian ally, died during the siege at Carthage, whereupon his son Micipsa, with his two brothers by his side, became kings of Numidia. The two brothers quickly died, leaving Micipsa as sole ruler. Yet when Micipsa died, the kingdom was divided between his two sons,

Hiempsal and Adherbal, and their cousin Jugurtha. Jugurtha eventually killed Hiempsal, while Adherbal fled to Rome. The Romans did not appear to have been concerned about this. Yet when Jugurtha sacked a city called Cirta and had the male population killed, some of which were Romans, Rome had no choice but to act. The Jugurthan war lasted from 111 to 105 BC when Jugurtha, who had fled to his father-in-law, the Mauri king Bocchus, was surrendered by his protector. Even though Jugurtha was defeated, the Romans gave half of Numidia to his half-brother, Gauda. The other half was given to Bocchus, seemingly as a reward for surrendering Jugurtha. It is clear from this settlement that the Romans did not have a wish to expand further into North Africa at that time. Yet as a result of this war, many Roman veterans were settled in Africa, and a permanent garrison remained in Lepcis Magna.

At this stage, as stated above, Rome did not wish to expand its small African province. During the civil war between Marius and Sulla, the co-rulers of Numidia, Hiempsal and Hierbas took opposing sides as allies of Sulla and Marius respectively. Hierbas was a Numidian king, about whom little is known. After Sulla's victory, Hierbas was executed and Hiempsal became sole ruler of Numidia. Once again one may note that the Roman concern was clearly not focussed on expansion in Africa. It is during the next phase of Roman involvement in North Africa, that we first note that expansionist tendencies are appearing.

After Julius Caesar's invasion of Italy, his opponents, led by Pompey, fled to Africa. They did this for several reasons, among which was the rapid movement of Caesar's forces, while the popularity of Pompey in Africa as well as his many allies there, may be viewed as primary causes. During this war, Numidia sided with Pompey and Mauretania with Caesar. After Caesar attained victory over his rivals, Numidia was annexed as a Roman province. The king of Mauretania received a large part of Numidia as a reward for siding with Caesar. Caesar also sent the son of the Numidian king Juba to Rome, specifically to his own household. It should further be noted that we now observe, for the first time, a decision on the part of the Romans to expand into Africa. Caesar founded a colony on the site of Carthage and also settled large numbers of Italian farmers in Africa, as well as many of his veteran soldiers. An interesting point to note is that the founding of a colony on the former site of Punic Carthage occurred in spite of this area being allegedly cursed after it was destroyed in 146 BC. In 33 BC, when the Mauretanian king died, Rome took over rulership of this kingdom, finally giving its kingship in 25 BC to Juba the Second, who was the son of Juba the Numidian king. Juba the Second would later marry Cleopatra Selene, Mark Antony and Cleopatra's daughter,

who was raised in a Roman household by Octavia, the sister of Augustus and widow of Mark Antony. Together, Juba the Second and Cleopatra Selene would turn the capital of Mauretania into a thoroughly civilised city, with all the amenities expected of a Roman or Greek city.

Under the rule of Augustus, numerous colonies were founded in Africa and even in Mauretania. Large numbers of veterans from the recent civil war were settled there. It should be remembered that Mauretania was a vassal state, yet the settling of Roman citizens within its borders can still be regarded as surprising. Many Italian traders and peasants would also travel to and settle in North Africa during this period. It was also during the rule of Augustus that the third legion (*Legio III Augusta*) was sent to North Africa. Raven (2003:59) relates: “A succession of triumphs awarded to his generals from campaigns in Africa, otherwise unrecorded, in 34, 33, 28 and 21 BC testify to constant disturbances during the early part of Augustus’s reign.” It becomes clear that fighting in Numidia, Mauretania, and the rest of North Africa was mainly related to native nomadic tribes living around the borders of these areas and the edge of the Sahara during this period.

The next major rebellion in North Africa occurred under the leadership of Tacfarinas in AD 14 to 24. This appears to have been in response to the building of a Roman road across what may have been the migration route of a tribe called the Musulami. This revolt would prove quite difficult to put down and included many tribes in both Numidia and Mauretania. The instability of Mauretania can be judged not only from the above, but also from the fact that when Juba the Second died in AD 23, a general revolt took place, which his heir Ptolemy eventually managed to suppress. Ptolemy was the last king of Mauretania and was executed by his cousin Caligula, who happened to be the Roman emperor. Why this execution took place, is not clear, but Raven (2003:61) postulates that “he made the mistake of appearing at an imperial function in Rome in a style even more ostentatiously luxurious than that of Caligula.” Whatever the case may be, in AD 40, Mauretania was annexed by the Romans. This, along with the killing of Ptolemy, led to a severe revolt. Caligula died before it could be suppressed, while Claudius, who succeeded him, took several years to finally bring Mauretania to order. He then divided it into two Roman provinces and founded a few new colonies, for example Oppidum Novum, which Raven (2003:91) states, was populated by Roman veterans. He also raised the status of certain towns, which had aided the Romans. It should be briefly explained here that under Roman law, cities fell into various categories, and by uplifting their status, inhabitants of cities gained tax exemption or even Roman citizenship.

Another major factor was that the children of intermarriage between Roman citizens and locals could then also be granted Roman citizenship.

Under Emperor Nero (54-68 AD), the amount of imperially owned land increased through execution of, and confiscation from Roman landowners. This was, however, limited to a few individuals who owned large estates in Africa. Some minor unrest occurred after Nero's death, but order was mostly maintained. North Africa was not immune to the power struggles following Nero's death, and it is interesting to note that three of the emperors during the year of the four emperors, 68-69 AD, held posts in North Africa, namely Galba, Vitellius, and Vespasian. However, the assassination of opponents and supporters of rivals, was what mainly occurred in North Africa, and not large-scale revolts. The next major upheaval occurred in AD 86 under Domitian, when a tribe called the Nasamones revolted. This revolt was quickly suppressed. The Nasamones were killed, and their land given to Roman settlers. Law (2008:200-201) recounts:

It was apparently only in Numidia that Romans established a permanent military occupation of extensive areas in the interior. Under Emperor Trajan (AD 98-117), a line of Roman forts was constructed in the plain to the south of the Aures Mountains, from Ad Maiores (Besseriani) in the east to Vescera (Biskra) in the west.

He further states that in Tripolitania such "limes" were only constructed during the reign of Septimius Severus in the late 2nd and early 3rd centuries AD. What is also of interest, is that Septimius Severus was born in North Africa. During this period, North Africa was the major supplier of food to Rome, and olive oil was a major export item.

Law (2008:205) states: "The most flourishing period of Roman urban civilization in North Africa was that of the rule of the Severi (AD 193-235)." He adds that their African origin caused them to make major investments in North Africa. He also notes that a major decline occurred after AD 238. This may perhaps be related to the rapid change of emperors in Rome and instability caused by this issue. However this may be, a general revolt took place in North Africa from AD 260, where military action caused severe destruction, and North Africa never fully recovered from this. During the middle and late 3rd century AD, major wars against

native tribes also led to much damage in North Africa. Furthermore, “[t]rouble of a different character, but equally ruinous to the prosperity of North-West Africa, was represented by a revolt of the Roman governor of Africa in AD 305, in suppressing which the imperial forces sacked the towns of Carthage and Cirta” (Law 2008:206-207). This governor was Alexander. It should be added at this stage that under Diocletian, who ruled from AD 284-305, Rome gave up large areas of land in North Africa, as these could not be properly defended against nomadic tribes that were living beyond the borders of the various African provinces. Under Emperor Constantine the Great, who ruled from AD 313-337, Cirta was renamed Constantina, and Christians became quite numerous in North Africa because of his pro-Christian views. It was during the rule of Constantine that a split occurred within the church in North Africa. This came about because of the fact that Caecilian, the bishop of Carthage, was not recognized by certain members of the church. These members then elected their own bishop, who quickly died and was replaced by Donatus, from whom they took the name Donatists. Although some minor instability was caused within North Africa because of this group’s views, it was not until they apparently had a hand in the revolt of Firmus in the middle 70’s of the 3rd century AD that steps started to be effectively taken against them. They would continue to cause a slight instability into the early 5th century AD. Firmus’ brother, Gildo, while holding a high military post in North Africa, led a revolt in AD 397. This barely lasted a year before it was suppressed. After this event, the history of Roman North Africa remains void of major events until the uprising of Bonifacius, the governor of Africa in AD 427. He was defeated by the Vandals a year after they invaded North Africa in AD 429.

3.3 Conclusion

From the general background given above, it is clear that the Roman involvement in North Africa was quite extensive. This was especially true along the coast and in urban areas. It can further be gathered that in Mauretania, Roman involvement was far less than in other areas. I have chosen not to deal here with the interrelationship between different cultural groups, as this falls within the scope of the next chapter. Moreover, I have not in depth described the nature of privileges granted to various cities under the Roman law, because Chapter 4 contains ample information concerning this topic. North Africa was an important part of the Roman world. Not only did it supply large amounts of food to Rome, but many leading members of Roman society, as shown above, came from North Africa. The role played by the Roman military, especially *Legio III Augusta*, in relation to the culture of native groups, will be covered in the next chapter.

CHAPTER 4

URBANIZATION AND LAND CULTIVATION IN RELATION TO ROMANIZATION

4.1 The Extent of Urbanization and Land Cultivation

4.1.1 Introduction

Although it is difficult to state exactly what proportion of the North African population became urbanized, and exactly how much land was cultivated, it is possible to show that both land cultivation and urbanization were extensive in Roman North Africa. Below, I will argue that land cultivation was extensive, and that urbanization increased dramatically after the middle 2nd century AD.

4.1.2 Land Cultivation

Graham (1902:55) claims that, under Emperor Trajan, Africa was a major supplier of food to Rome. This points to a large extent of land cultivation. Although Graham is a dated source, I have decided to include him as a starting point for this study. Murphey (1951:120-121) agrees with this view of extensive cultivation. Kehoe (1984:241) appears to also regard land cultivation as having been extensive in North Africa and views the *Lex Manciana* as evidence of a decision on the part of the Roman government, to exploit African land. Smith (1998:192-194), using ash deposits found at Leptiminus, relates that large-scale cultivation of crops, such as olives, took place around this area. This may be indicative of a larger pattern of agricultural practices around other Roman urban areas, such as Lepcis Magna, Hippo, and Neapolis (see Map 1 below). When linked to the evidence from sources such as those mentioned above, we could well conclude that large-scale land cultivation was common in Roman North Africa, especially from the 2nd to the 4th centuries AD. Gibbins (2001:311) reveals that during the rule of Septimius Severus (AD 193-211), North Africa became the primary source of olive oil for the Roman Empire. He reaches this conclusion from *amphorae* found in a Roman shipwreck at Plemmirio, with Instrumental Neutron Activation Analysis used on these *amphorae*, to support his views. This once again points to large-scale agricultural practices taking place in North Africa, and therefore to an extensive land cultivation. Thus, the fact that these *amphorae* held olive oil from North Africa shows that land cultivation of this nature took place in that region. Such a view is also supported by Hobson (2012:84-142, 220-223) who made extensive use of archaeological methods to form his conclusions. For example, by

examining the sizes of counterweights, he also showed how extensive the olive oil production in North Africa was during the Roman period. I have included some of his figures to illustrate this point. Figure one gives the number and size of counterweights, therefore highlighting that they were extensively used. Figure two is an educated guess of the seasonal yields based on the size of olive presses. In consequence of this data the view of widespread land cultivation could be accurate.

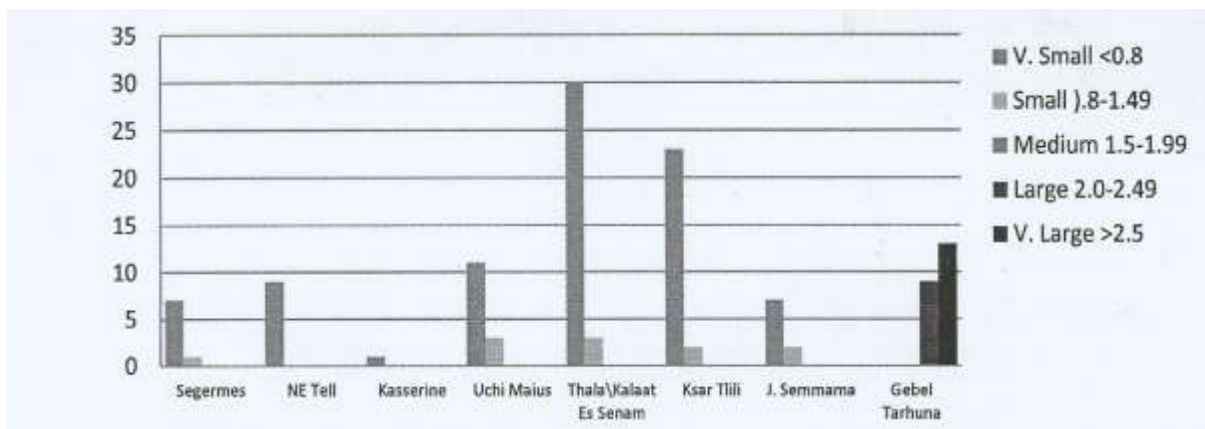


Figure 1: A comparison of 121 counterweight volumes from different regions of Tunisia and Libya (values in m³) (Hobson 2012:106).

Load size(kg Olives)	Daily Yield in Oil	60 Days Yield	90 Days Yield
250 (small press)	50 kg (54l)	3,000 kg (3,260l)	4,500 kg (4,891l)
600 (medium press)	120 kg (130l)	7,200 kg (7,826l)	10,800 kg (11,739l)
1,000 (large press)	200 kg (217l)	12,000 kg (13,043l)	18,000 kg (19,565l)

Table 1: Estimated seasonal yields from single presses of varying size (Hobson 2012:108).

Leone (2012:119-133) uses archaeological evidence, mainly irrigation systems built throughout the Roman period, to show the extent of these systems in North Africa during the Roman period. From her work we understand that irrigation systems were extensive and well developed in North Africa. This also supports the view of large-scale land cultivation. Hoyer (2013:580) points out that land cultivation is noticeable in the archaeological evidence from Roman North Africa, especially irrigation systems which were built throughout the Roman period.

Stone (2014:565-600) mentions the large amounts of agricultural produce which were exported from North Africa during the Roman rule. He also provides data on port structures, illustrating how extensive exports must have been. I provide some of his data here to support this assertion. Both table two and figure two show that the size of harbours were quite large. This suggests that, if these were constructed because they were necessary to accommodate large amounts of ships transporting agricultural produce, the view of extensive land cultivation could be accurate.

Region	No. of Harbours	Wharf Length (m)	Coastline Length (km)
Byzacena	7	5,900	100
Gulf of Tunis	3	5,030	80
Tripolitania	4	1,984	175
Iol Caesarea-Tipasa	4	1,800	30
Cyrenaica	4	1,380	140
Jerba-Bou Grara	3	910,000	40

Table 2: Regional clusters of harbours, including number of harbours with definite artificial port structures, wharf lengths, and coastline lengths (Stone 2014:584).

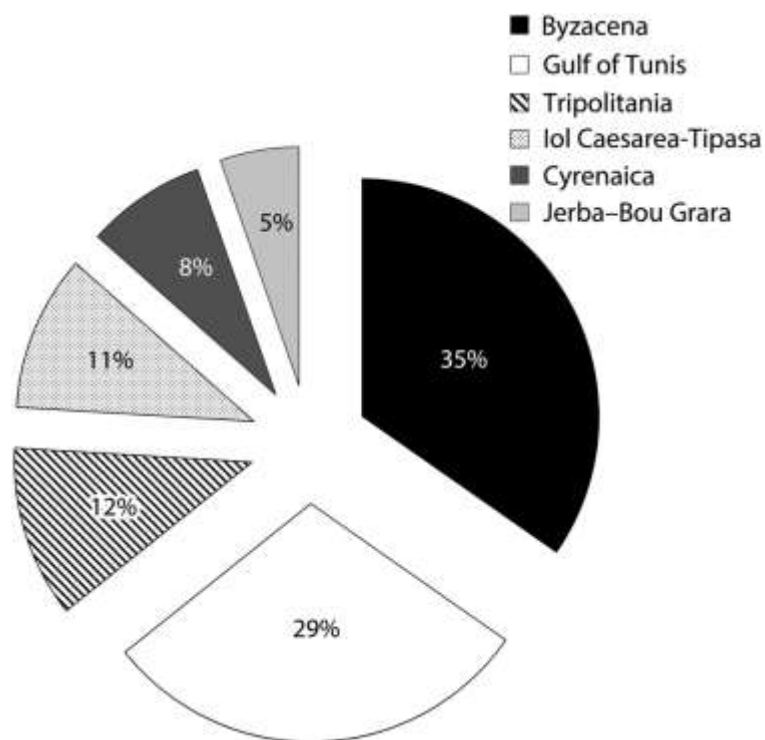


Figure 2: Percentages of the total wharf length in North Africa by region (Stone 2014:584).

With a reassessment of a countryside survey, Sycamore and Buchanan (2016:117-127) have indirectly generated data with reference to land which was cultivation around Carthage during

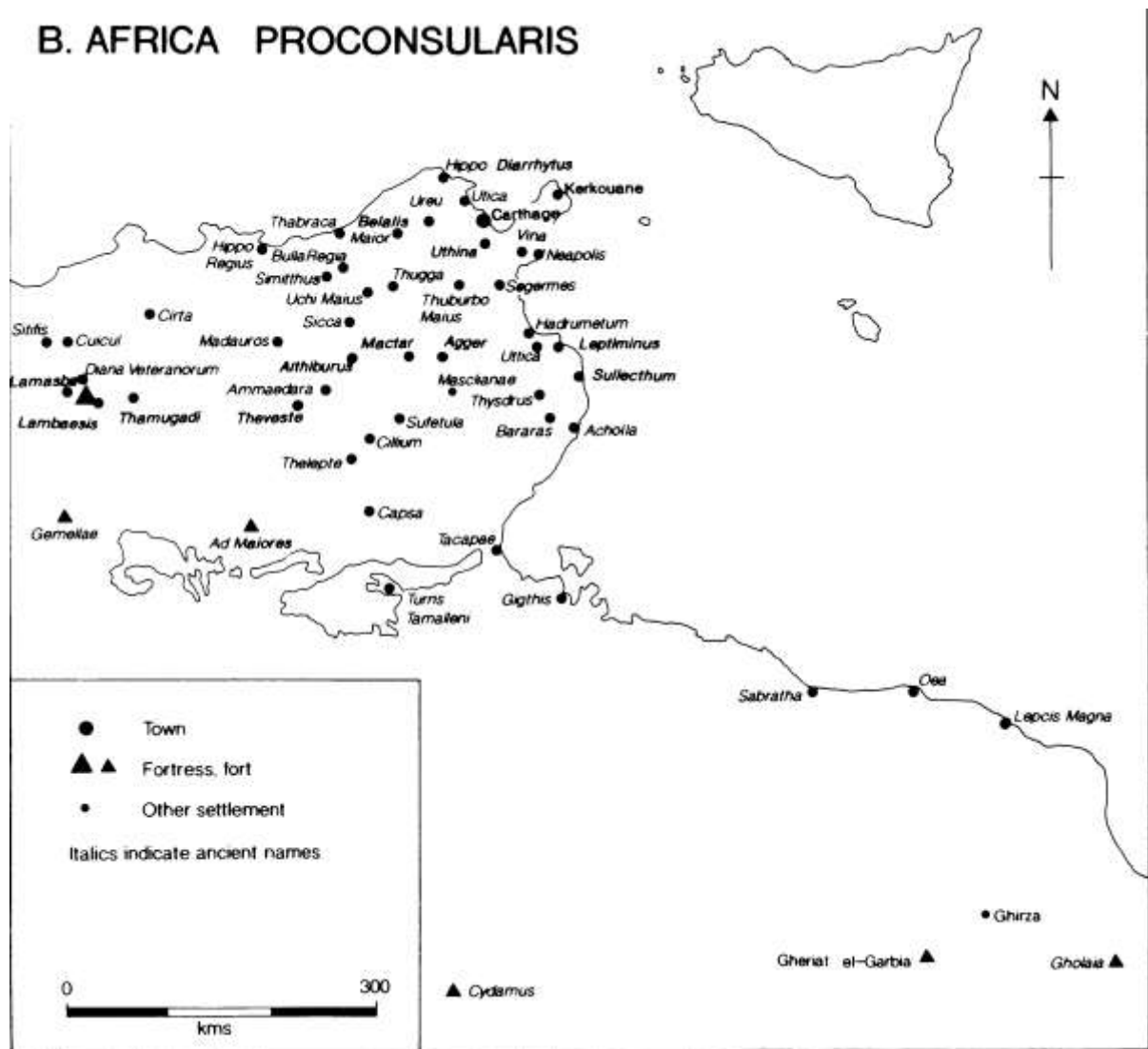
the Roman period. From this data it can be concluded that land cultivation could have been extensive in this area. On its own this data may be debatable, but when used along with the evidence shown above, the conclusion becomes possible. Raven (2003:79-96) also holds the view that land cultivation was extensive. She has used archaeological data as well as primary sources (mainly Pliny the Elder's *The Natural Histories*. Although she does not state it explicitly, it looks as if she has used *Hist Nat XVIII.22* to prove this.). According to Raven (2003:79), "Pliny the Elder reported that the country was so fertile that one grain would produce a stalk bearing a hundred and fifty new grains (and three times that figure had been known, it was claimed)." She does not only mention the irrigation systems described above, but even goes so far as to provide rainfall data for the areas concerned and uses this to show that it was possible for North Africa to provide the large quantity/number of crops as indicated. Raven (2003:88) adds: "Regular winter rains, mild springs without frost, long ripening summers unthreatened by sudden storms: Africa was blessed in its climate, and its harvests were reliable." It becomes clear that the evidence for olive oil production that was provided by Hobson (2012:84-142), as well as the data on port structures provided by Stone (2014: 565-600), when linked to the data of Raven (2003:79-96) on irrigation systems, can only point in one possible direction. This would be that land cultivation in North Africa was extensive during the Roman period of governance.

4.1.3 Urbanization

Raven (2003:100-103) refers to the large amount of archaeological evidence for extensive urbanization in North Africa. According to her, this evidence shows that by the 3rd century AD there were around 500 cities in Roman North Africa. However, she does not state the size of these cities. She also points out that some of the extensive water systems that have been found, could have supported large urban populations. At Caesarea, she states, a population of about 40,000 people could have been supplied with water by the city's main aqueduct. She also discusses possible population figures for several other cities which she views as larger than average and states that these numbered more than ten which had populations ranging from 20,000 to 40,000. However, she argues that the majority of North African cities would have had populations of 10,000 to 15,000 people. This information, being based on archaeological sources, clearly points to quite extensive urbanization, especially prior to the 4th century AD.

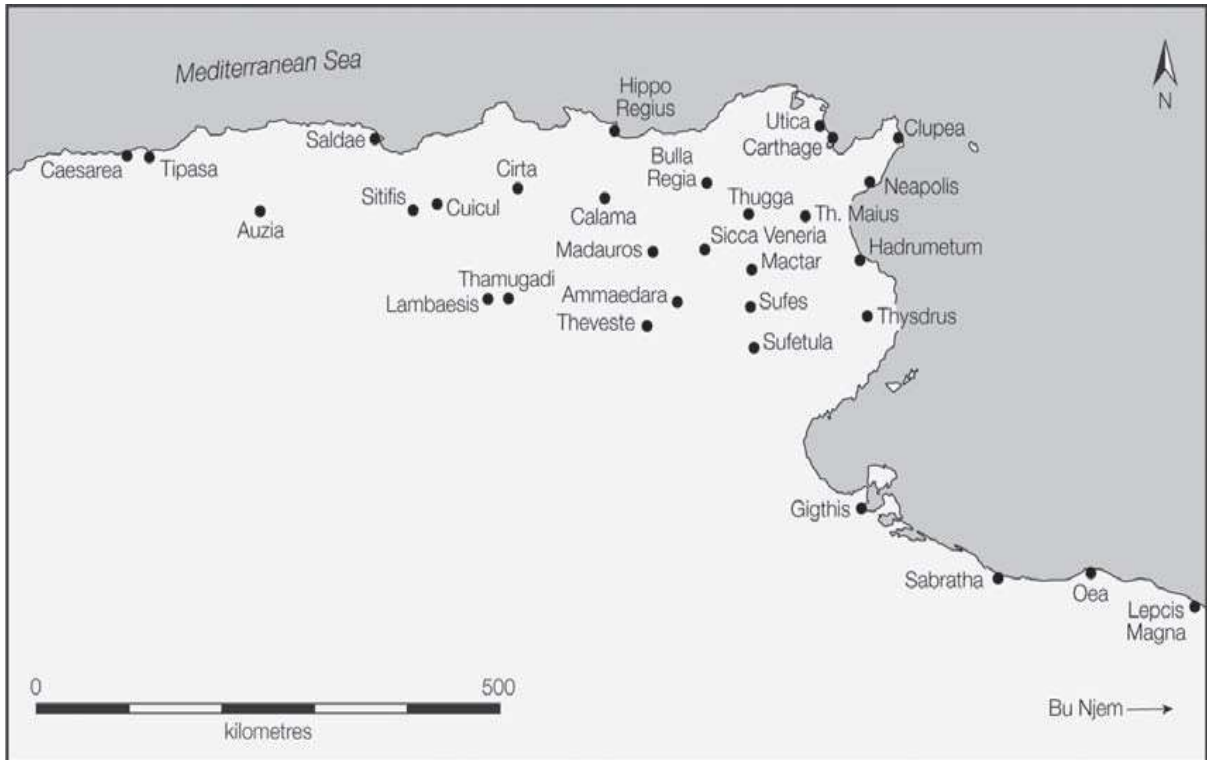
Pliny (*Hist Nat* V.2-3) provides us with a lengthy list of urban sites, which appears to support a view of increasing expansion. Yet it must be kept in mind that he was writing in the early 1st century AD. Furthermore, Strabo (*Geo* XVII.3.15) also describes limited urbanization as starting to take place under Roman influence in the late 1st century BC. In contrast to this, Herodotus (*Hist* IV:167-205), writing in the 5th century BC, views the groups under discussion as nomadic or semi-nomadic. Although this date falls outside the scope of this study, it provides evidence that these tribes were nomadic/semi-nomadic before the period under discussion. Once again, it should be stated that Herodotus (*Hist*) must be used with caution, as he cannot be regarded as an extremely accurate source.

Mattingly and Hitchner (1995:165-213) discuss archaeological work done in North Africa, which includes a map of notable urban sites in *Africa Proconsularis*. I have included this map here to illustrate the extent of urbanization. One may well note the large number of towns/cities, as well as their distribution patterns.



Map 1: Principal sites of *Africa Proconsularis* and Numidia referred to in the text (Mattingly & Hitchner 1995:178).

Cilliers (2014:80-81) maintains that the middle 2nd century AD can be regarded as the start of an extensive construction of cities in North Africa by the Romans. She asserts that this continued till the middle of the 4th century AD. She also points out the fact that Strabo (*Geo* XVII.3.15) mentions 300 towns, although she still views the main period of urbanization as occurring from the middle 2nd century and not earlier than this period. Sears (2011:31-51) also views the main period of urbanization as taking place during the middle of the 2nd century AD. The map below, which he includes in his discussion of urbanization prior to the 1st century AD, can be compared to the map provided above. From this map it is clear that urbanization does appear less extensive than during later periods.



Map 2: Roman Africa Proconsularis, Numidia, and Eastern Mauretania, AD post 98 (Sears 2011:32).

Sears (2011:65-97) highlights the increase in construction at existing urban sites, as well as the founding of new cities during the 2nd century AD. He also states that existing towns expanded and developed on a formal basis compared to the haphazard structures present before this period, indicating a Roman influence. He also views urbanization as extensive under the Roman rule. In order to demonstrate the structured nature of the Roman construction, I have included a plan of Lepcis Magna found in Sears (2011:37) (Fig. 3).



Figure 3: Leptis Magna (Sears 2011:37).

Duncan-Jones (1963:85-90) used an inscription about a financial donation in Siagu, a medium-size North African city, to demonstrate the population size of such a city. He claims that most cities of this type had a population of nearly 20,000 people. Using the data provided above, I argue that a total urban population of up to five million is quite possible, while seven million could be more likely. Of course, not knowing the percentage of the total of the North African population which this constituted, it at least shows that there

was a large urban population, especially during the 2nd and early 3rd centuries AD.

Hobson (2012:63-83) also gives a good explanation of how the urbanization has increased. Below are two of his maps to show the early Roman settlement and upliftment of status in respect of urban settlements, which most likely occurred because of expansion, even though an increased Romanization may also have been a factor in such an upliftment.

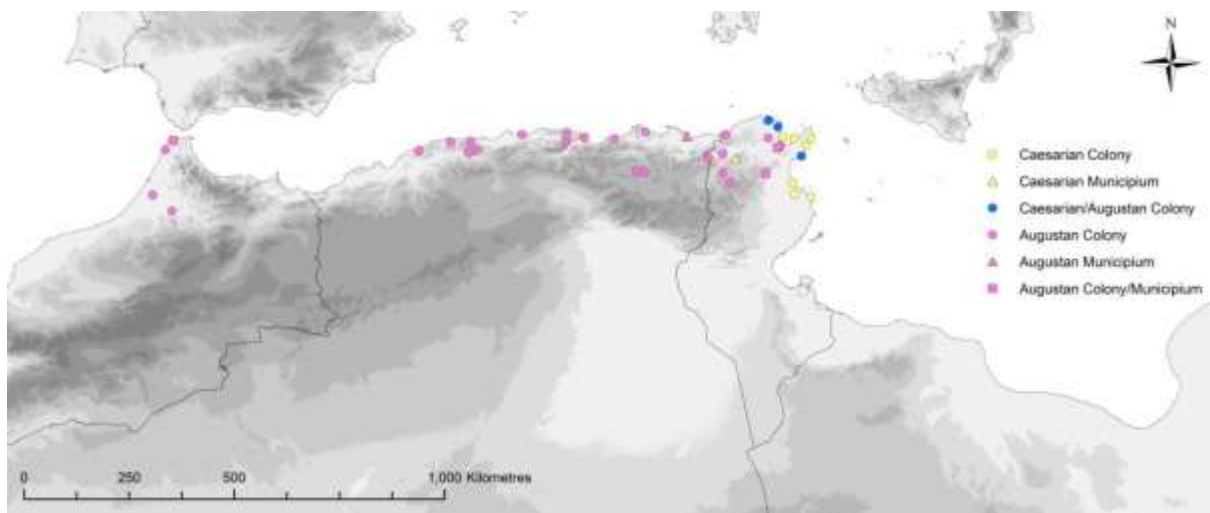


Figure 4: Colonies and municipia established under Caesar and Augustus (Hobson 2012:64).

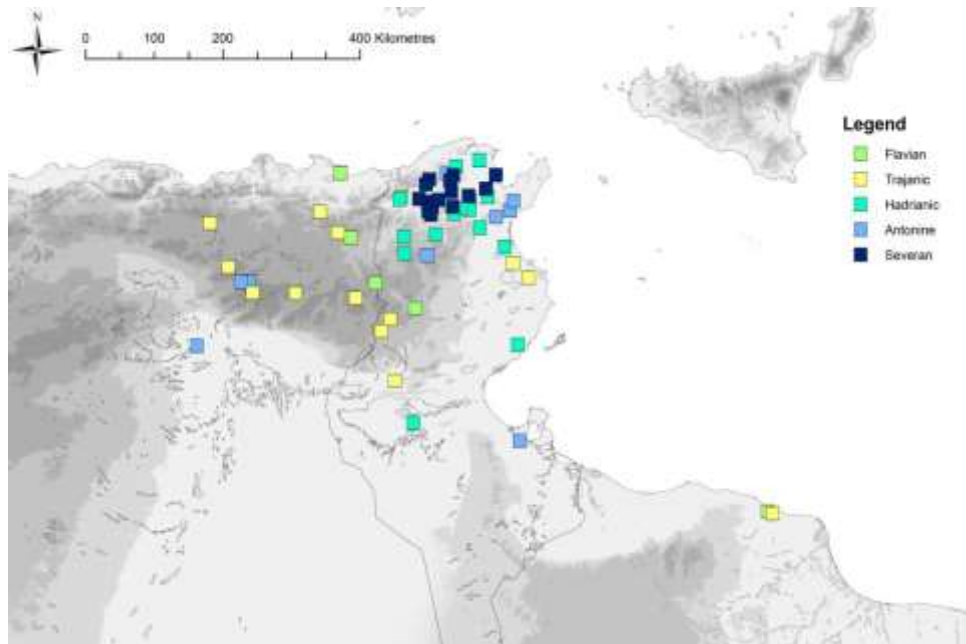


Figure 5: Civic promotions from the Flavian to the Severan dynasties (after Gasco 1972) (Hobson 2012:68).

The following figure illustrates the relationship between Rome and cities in the rest of its empire. It is useful in understanding how civic promotions functioned (cf. also Chapter 3).



Figure 6: Figure illustrating the relationship between Rome and cities in the rest of its empire (Department of Classics and World Languages 2010:32).

4.1.4 Deduction

From what is stated above and from the evidence provided, it is apparent that both land cultivation and urbanization were extensive. Moreover, this became true after the middle of the 2nd century AD till the late 3rd or early 4th centuries. This view is, of course, based on both the primary sources provided above, and even more so on the secondary sources who were written by well-respected academics who based their research on primary evidence and scientific methods.

4.2 The Evidence for Romanization

4.2.1 Introduction

To my mind, Romanization constituted the adoption of Roman cultural aspects, such as laws, religion, economy, language, and marital practices, as well as political structures and construction styles by non-Roman groups. In this research I have applied various authors' works to determine whether Romanization was widespread or not. I have given equal attention to both the pros and the cons. Many of these authors have provided/used primary sources in forming their opinions. In some instances, I have agreed with their interpretations of such evidence, and in other cases I have not. Where I have differed from certain scholars, I have indicated it with the appropriate reasons.

4.2.2 Evidence for and against Romanization

Canter (1940:203) states that the large number of buildings donated by private people points to a pride in Roman citizenship, especially when connected to the Roman nature of these constructions. I reason that this could well be the case, although only wealthy individuals could have made such donations. However, this is only a small indication of the general population of North Africa. Although Canter (1940) is a dated source, the value of his evidence merits his inclusion in this study. Millar (1968:126-134) relates, through the use of archaeological data for example inscriptions, that Latin was in widespread use in North Africa, but that Punic was also extensively used, as well as a separate native language, which he calls "Libyan" for convenience sake. He views Romanization as being general, although it existed alongside older native cultural practices. This could be possible, and even quite likely. Brown (1968:86-88) supports this view and argues that both Latin and Punic were widely spoken. Yet he also relates that certain members of the North African society could not speak Punic, mostly those belonging to the wealthy or upper classes. This leads him to conclude that although Punic was widespread, Latin can be regarded as the *lingua franca* in North Africa.

He bases his conclusions on historical sources such as Augustine – he specifically mentions 21 passages in Augustine’s works, *Epistula ad Romanos inchoata expositio*, *De Magistro*, and *Enarrationes in Psalmos*. After reading translations of these passages, I agree that these conclusions appear valid. For example he shows that two passages in *Epistula ad Romanos inchoata expositio* (13) and *Psalmos* (128:8) refer to Semitic words. Augustine in *De Magistro* (xiii:44) was unable to judge the meaning of a specific word. In relation to passages in *Epistula ad Romanos inchoata expositio* (13; 66,2; 108,14; 209,3) he states that Augustine came into contact with a non-Latin language through interpreters, and that the poorer persons living around Hippo could switch between this language and Latin with ease. *Epistula ad Romanos inchoate expositio* (13) is also used by Brown to show that both Augustine and his bishop at the time he was still a priest in Hippo, Valerius, did not know a specific local word. This word was *salus*, which Brown believes has Semitic origins because of its similarity in form and meaning to *shalosh* a Hebrew word. I believe expanding on all 21 passages here is unnecessary and the few examples I have given along with a referral of the reader to Brown (1968:86-88) along with his precise referencing of the original passages is appropriate.

Mattingly (1987:71-94) discusses the native culture and society in Tripolitania. He views Punic as having been widely spoken, especially by the urban elite. He uses epigraphic evidence from funeral dedications, as well as building donations to form his argument. He holds the view that Punic was also generally spoken by non-Punic “Libyans,” and that the Punic culture was dominant, even in rural areas. Although the evidence does suggest that in this geographical area, Punic was extensively used by wealthy urban individuals, I do not agree that the evidence shows an extensive use among the rural population. Of 18 funeral dedications from a specific rural area, only three are indicating a Punic influence. To my mind, this does not appear to be extensive. Moreover, the same evidence points to Latin also being in widespread use. If language is an indicator of culture, as he argues, then it seems as if Punic was the language of the wealthy members of the social order in Tripolitania, but more so in urban areas, that “Libyan” was spoken among the rural groups, and that Latin was spoken widely by both these social classes, especially concerning formal topics.

Thus, the upper class in this area may have retained a Punic character and the lower class a Libyan one, while both were showing Roman cultural influences. Meyer (1990:74-96) relates

that the practice of funeral donations/epitaphs on grave monuments in North Africa can be regarded as providing evidence for extensive Romanization. She argues that native North Africans took up this Roman practice both to show their level of Romanization, but also unconsciously as a result of adopting Roman habits/culture. She further explains that after an exposure to Roman cultural practices, this practice has increased among native North Africans. As an example of this, she refers to the cities of Theveste and Maktar. Both these cities showed an increase in the use of funeral monuments with Latin inscriptions after contact with Roman military units. She also relates that this practice increased dramatically during the late 2nd century AD, a time when many North African cities were granted *coloniae* or *municipia* status, where the inhabitants of these cities gained Roman citizenship. Legally speaking, such grants allowed greater protection to citizens of these towns and increased the number of rights that they had under the Roman law. She further argues that these grants were likely the result of inhabitants displaying a clear Roman culture. Moreover, she claims that the sudden drop in funeral monuments during the 3rd century can directly be traced to the universal grant of citizenship by Caracalla in AD 212. Thus, many natives no longer needed to exhibit their Romanized cultural practices to be viewed as citizens. A further note of interest is that she mentions that the funeral monuments found in Maktar indicate some Punic elements, and this may reflect a mixture of Punic and Roman cultural aspects. She also provides data in the form of a figure which I give below. This figure shows that a dramatic drop in the amount of funeral monuments does, in fact, appear to have occur shortly after Caracalla's grant of universal citizenship.

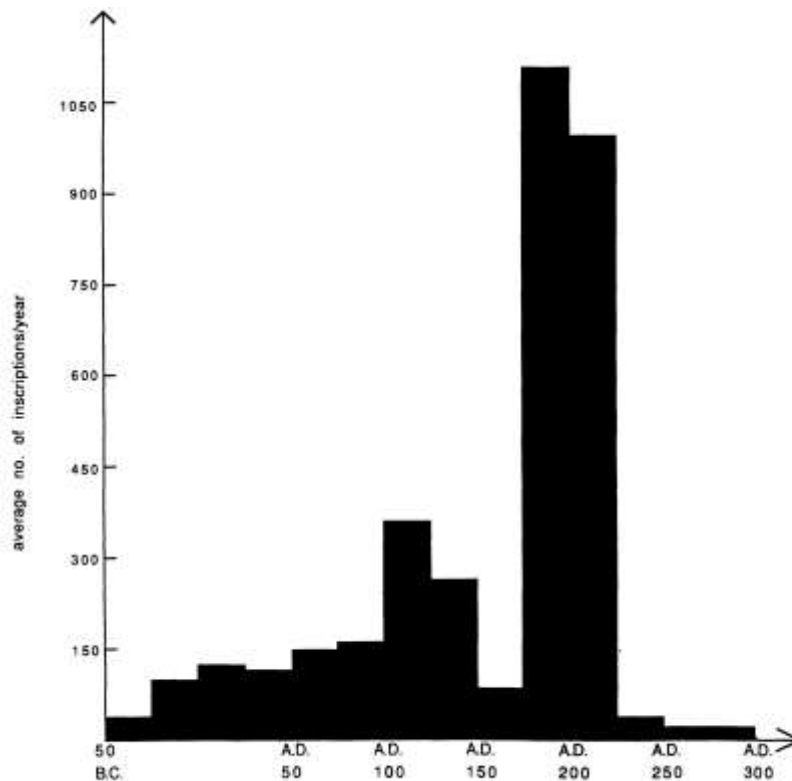


Figure 7: Graph showing an epigraphic curve of 3611 epitaphs from North Africa (Meyer 1990:82).

I do agree with her argument, as the data that she provides is of great value in establishing a view of the trend towards adopting Roman cultural practices by native North Africans. However, it should be kept in mind that the total number of 3,611 inscriptions on grave monuments could reflect but a small amount of the total deaths during the mentioned period, and archaeologically speaking, would be far easier to uncover than a poor rural peasant's unmark-ed grave. Thus, although I feel confident stating that there appears to be a general move towards Romanization during the 2nd century AD in urban areas, I can neither state for sure that this is generally true for the entire geographical area that this study covers, nor for the time after the early 3rd century AD.

Varner (1990:10-19) supports the view mentioned above, but goes a step further by pointing out the Roman clothing portrayed on funeral and other monuments in North Africa. Specifically he says that the depiction of Roman clothing was a sign of a wish by the commissioners of these monuments to appear Roman. However, this argument still faces the criticism voiced above, and I could well add that this may have been an artistic convention, not necessarily a reflection on what was worn by native North Africans. Cherry (1997:71-83)

has used 526 inscriptions (epitaphs) concerning marriage in the towns of Lambaesis and Thubursicu Numidarum to determine the extent of intermarriages between what he calls Roman(ized) and un-Roman individuals. He claims that this is an accurate way of recording Romanization, broadly speaking, in North Africa. He does mention the fact that this method may not be completely accurate, but he also states that the lack of evidence can be regarded as equally inaccurate, concerning different groups. He makes this claim on page 80, and refers to the fact that many marriages may not have been recorded, but that this would, in his view, have been true of all marriages regardless of the cultural identity of the bride and groom. He argues that this makes his sample representative of a larger pattern. I agree to a large extent that there is no reason to doubt that the lack of evidence is universal, rather than only being among one cultural group. Yet it should be stated that certain cultures are more prone to leaving evidence, such as monuments, than others – the Romans being a good example of a group who may well have left more archaeologically traceable evidence. By this I mean that many natives may not have left recordings on stones or other objects that can be recovered in modern times. I still view Cherry’s figures as fairly accurate in depicting the general nature of cross-cultural marriages, and by extension Romanizing factors within the North African society. I have therefore included Cherry’s figures below – exact percentages can be found in his work (Cherry 1997:71-83).

		Wives			
		Roman(ized)	Un-Romanized	Total	
Husbands	Military	Roman(ized)	139	1	140
		Un-Romanized	0	0	0
	Civilian	Roman(ized)	225	0	225
		Un-Romanized	2	0	2
Total		366	1	367	

Table 3: Husbands and wives at Lambaesis (Cherry 1997:77).

			Wives		Total
			Roman(ized)	Un-Romanized	
Husbands	Military	Roman(ized)	3	0	3
		Un-Romanized	0	0	0
	Civilian	Roman(ized)	133	12	145
		Un-Romanized	9	2	11
Total		145	14	159	

Table 4: Husbands and wives at Thubursicu Numidarum (Cherry 1997:79).

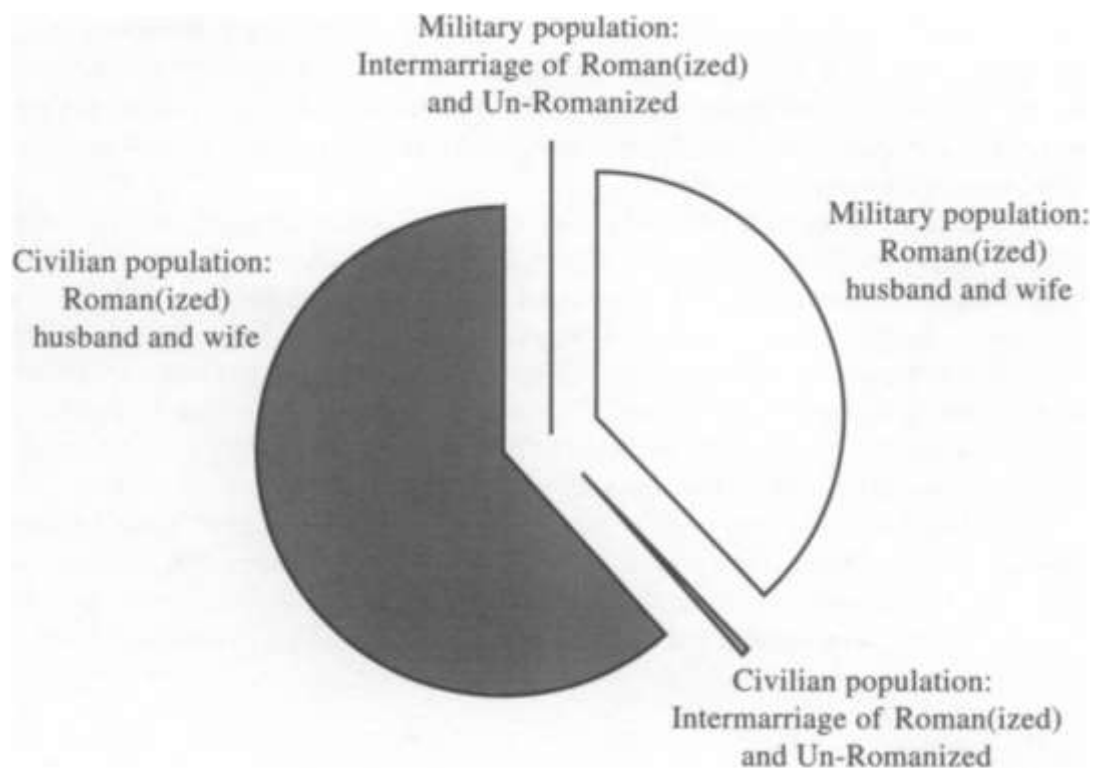


Figure 8: Intermarriages at Lambaesis (Cherry 1997:77).

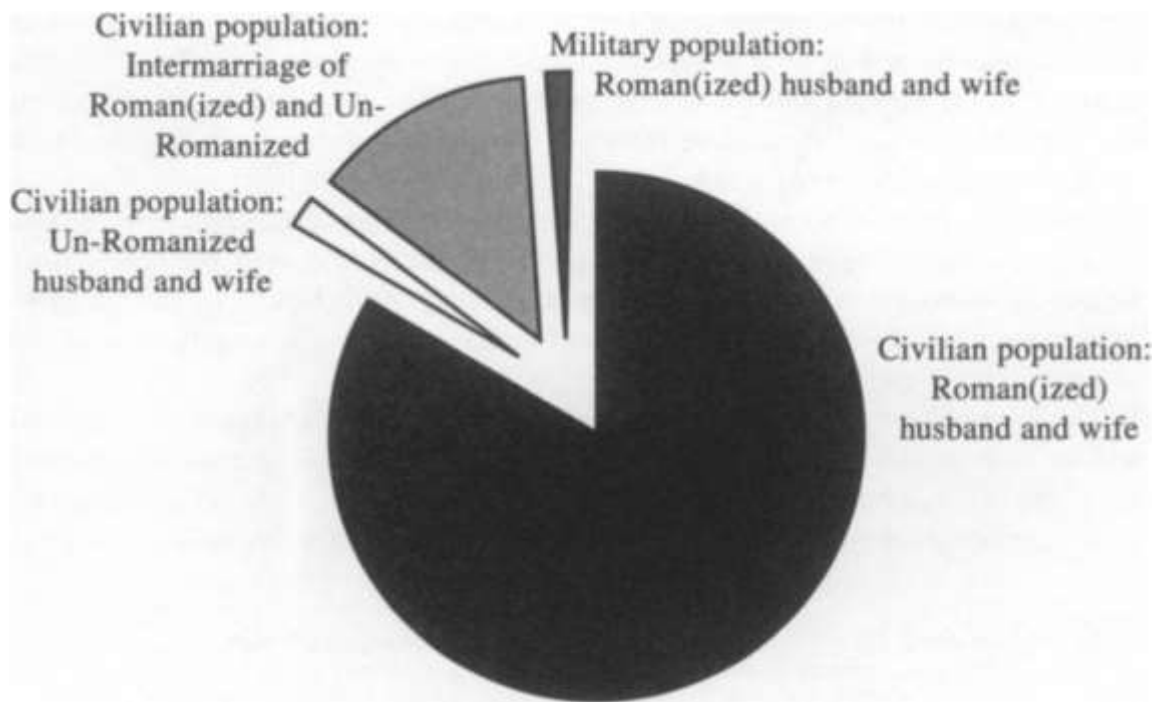


Figure 9: Intermarriages at Thubursicu Numidarum (Cherry 1997:79).

From these tables and figures it appears that Cherry (1997) may be correct in his view that Romanization was widespread, and that regional differences with regard to the extent of Romanization did occur. This is a view, in the light of the evidence provided above, that I tentatively agree with. Brett and Fentress (1997:50-55) hold the view that Romanization was a desirable social conversion undertaken by the social elite in North Africa for political reasons. In support of this, they point to epigraphic evidence which shows local tribal chiefs gaining Roman citizen-ship and using Roman style names. As evidence of this they provide inscriptions from tomb-stones found near Sicca, a dedication from Gigthis, and a bronze tablet from Banasa. This evidence, though small in nature, does come from three different geographical regions, and indicates that this practice was widespread among the upper classes throughout North Africa. In my view Cherry's (1997:72) opinion that administrators adopting conventions that increase the chances of promotion within the Roman administration does not necessarily imply acculturation is a reflection of his views on what constitutes Romanization. In this specific study the parameters of what is viewed as Romanization are clearly defined as any adoption of various Roman cultural practices as defined under *Clarification of Key Concepts and Terms* above.

With reference to the lower classes, they point to the lack of a large Roman military presence in the form of only one legion, as evidence of the extensive use of auxiliary units. They claim that such auxiliary units would have become exposed to Romanizing influences and that individuals would thus have been Romanized to some extent by serving in these units. This could well have been the case, as McLaughlin (2015) mentions in more detail below. Cherry (1998:117), on the other hand, points out that the effect of the military in respect of Romanization was limited. He refers to the lack of evidence for extensive intermarriages between native women and Roman legionaries in forming his argument. This is true, although these are not the Romanizing factors referred to above, and it should be borne in mind that Cherry is focussing on evidence for legal marriages, not extra-marital relationships, which could have been far more extensive, but for which little archaeological evidence would have survived.

Rives (2001:425-434) uses an inscription from Lepcis Magna to point out the extent to which the Roman imperial cult was adopted in North Africa, as well as structural inscriptions in the form of dedications on temples, found in Avitina and Zita. He also refers to Tertullian and Minucius Felix (two Christian apologists) mentioning the ruler cult in Mauretania. (He does not give specific quotes from their works, although he may be referring to Tertullian's *Apology* XXX111.1-4 and Minucius Felix's *Octavius* XX.4-XX11.5.) His conclusion based on this evidence, which he admits is limited, appears to be that Romanization can be regarded as having been promoted by religion and that the widespread adoption of the Roman imperial cult and Roman-like ruler cult can be a sign of extensive Romanization. I agree with his view, notwithstanding the limited evidence. Yet the shortage of evidence does detract from the worth of this theory, and I will not use it on its own, but instead add it here as further evidence based on what is provided above, for my growing view that Romanization may well have been extensive. Norman (2002:302; 2003:45) highlights the fact that children that were buried near Roman Carthage from the 1st to early 5th centuries AD, were buried according to Roman cultural practices, namely in placement and inscription form on gravestones. However, she adds that Punic elements are also present in these burials. This evidence from 60 graves also indicates that Romanization was widespread in this area, although a certain amount of Punic influence remained throughout the Roman period.

When taken along with all the evidence provided above, specifically Millar (1968:126-134), Brown (1968:86-88), and Meyer (1990:74-96), this once again supports the view of a mix of

both Roman and non-Roman cultural elements within the population of Roman North Africa. It is also important to note the development of views from authors such as Millar (1968) and Brown (1968) to Rives (2001), Norman (2002), and Quinn (2003). The latter three appear to view Romanization as less extensive than the former two. This, in my view, could rather be an error on the part of the latter authors, as the evidence in general reflects a tendency to support the view of, at the very least, semi-prevalent Romanization, even if such Romanization may not have been as complete or simple a process in respect of individual North Africans, as formerly supposed by authors such as Millar (1968) and Brown (1968).

Quinn (2003:7-32) argues that the extensive use of Latin and the Roman nature of numerous buildings in Roman North Africa during the period of the Republic (she specifically discusses the period between 146 and 46 BC) does not point to Romanization, but to the immigration of Romans. I provide this as a counterpoint to the evidence provided above, which mainly appears to be in favour of the view that Romanization was widespread. However, it could well be pointed out that the period that she deals with is not the period within which most of the scholars above view Romanization as having occurred extensively. Thus, I hold the view, supported by the evidence above, that the 2nd century AD could well be regarded as the period during which Romanization spread at a vast and rapid rate among the native population. Raven (2003:144) states: "Every sizeable city had a capitol for the worship of Jupiter, Juno and Minerva." Once again, this points to the extensive adoption of Roman religion, and by extension, Romanization. Fentress (2006:3-33) argues that the increasing Roman nature of urban areas, namely in building types and city lay-outs, also points towards Romanization. She holds the view that the system of market towns would have increased the level of Romanization among the rural population of North Africa, as this has led them away from their traditional forms of trade within small social groups. This may be true, although there is a lack of evidence in this regard and I mention it only as a possibility, even a likelihood, but caution that this may well not be the case.

Lagaard (2008:87-100) has conducted a study of quite some length, comparing Roman Carthage with Lepcis Magna. He mainly discusses three factors, namely religion, language, and institutions (political, social, legal, and economic), and searches for traces of Romanization. He finds that Roman Carthage used Latin almost exclusively, and its institutions were based on those of the Romans. Furthermore, the religion of its population was clearly Roman in nature. In contrast to this, he argues that Lepcis Magna has adopted

Roman institutions, but little adoption of religion and language took place until the 2nd and 3rd centuries AD. Even after this, native religion and language still played a large role. His conclusions on this matter appear to reflect what the evidence above suggests, namely that Romanization primarily took place during the 2nd and 3rd centuries AD, and that this was a partial change in culture, with a mixture of native and Roman aspects, and also that this varied among different geographical areas.

It is important to note here that Carthage was a Roman settlement from its Roman re-founding in 19 BC (cf. Unisa 2010:163) and that, although the inhabitants were mainly natives, its character was extensively Roman. Straughn (2013) reminds us that the depictions (mosaics) found in estates outside of urban areas, show a clearly Roman way of life. This appears to argue in favour of extensive Romanization throughout the imperial period. Still, one could well argue that these mosaics were a mere cultural convention, and thus do not depict the true nature of the North African culture. I do not think that this is the case, but it is quite difficult to prove. Hence, this evidence should be regarded along with what is provided above in order to form a holistic picture.

Vanacker (2014:102-103) states: “It is conventional to state that Rome’s empire was built on cities. This study has shown that it could also have been built without them.” Vanacker’s views can be best related in the following words:

It was the specific constellation of various variables that gave rise to discrepant integration trajectories: Roman political and economic ambitions in the region, Roman military capacities, ecological conditions, intratribal and intertribal socio-political relations, opportunities of adaptation or reconversion for the nomadic economy, and pre-Roman external influences of urbanization, commercial integration and political centralization. Since the collective nature of these features differed from tribe to tribe, from context to context, dogmatic interpretations resulting from the rigid adherence to antagonism or symbiosis perspectives will always fall short of explaining the complex heterogeneity of integration (Vanacker 2014:103).

He uses a critical reading, as well as modern anthropological and ethnographic methods and techniques to draw his conclusion that Romanization was an extremely complex process and not as extensive, or reliant on urbanization as some authors would argue. He could be correct, although based on the extensive evidence provided above, he seemingly over-complicates the matter. He views the literary sources as biased, which they were, but incorrectly rejects their views based on this. Instead, one should critically use such sources, as many authors have done above. Moreover, although sources for Romanization, such as archaeological evidence, are limited, this does not necessarily mean that his view is correct. It merely means that the evidence is limited for both his view of Romanization taking place to a lesser extent and the views of other authors that it was more widespread.

By using various archaeological and literary sources, McLaughlin (2015:11-16, 31-47) highlights that auxiliary soldiers were exposed to numerous Romanizing factors and may well, to some extent have become Romanized by these. This resulted in the spread of the Roman culture to their local communities. However, he does state that this is not a simple matter and such views may only be partly correct. This view does support those mentioned above. To my mind, although we may not be able to prove how much of an impact the North African auxiliaries had on the spread of Romanization, they certainly did contribute to its spread based on the evidence provided above.

Saastamoinen (2010:405-538) provides a list of 1,002 Latin inscriptions from Roman North Africa which consist of a large number of dedications of buildings and other structures. The fact that these inscriptions were made in Latin without another language being present, serves as an indication that the dedicator expected most people to be able to read Latin, and this reinforces the view that Latin was widely known. If language can be regarded as an indicator of cultural spread, then this may reflect a large distribution of Roman cultural practices. However, the number of literate people may have been quite a few during this period, negating this argument.

4.2.3 Deduction

From what is shown above, it becomes clear that although forming an accurate picture of the spread of Romanization is difficult, if not impossible, the bulk of the primary evidence does appear to indicate that Romanization occurred widely in North Africa. Yet sources also seem to show that this was not a straightforward process of replacing one culture with another, but

rather a mixture of both, and at times several different cultures. However, as the Roman cultural practices were adopted, we can call this process Romanization, and state that it was, with regional differences indicated by the evidence, a common occurrence.

4.3 The Connection between Romanization, Urbanization, and Land Cultivation

4.3.1 Introduction

This section provides evidence in support of my theory concerning the two-way relationship between urbanization and land cultivation, on the one hand, and Romanization on the other. I will argue that this evidence answers the question concerning the nature of the relationship between Roman governance, urbanization, land cultivation, and Romanization.

4.3.2 Urbanization, Land Cultivation, and Romanization: Connected or Not?

Canter (1940:199) asserts that “there came with accelerating momentum vigorous municipal life and rural prosperity to a large population, who enjoyed not only the comforts and luxuries of life but expensive public amusements as well.” He is referring here to the period after Emperor Augustus took sole power (30 BC). This is in line with the view expressed later by Brett and Fentress (1997), discussed above, that Romanization was a desirable social conversion, although they appear to view it in a political light, while it could just as easily have been desirable in order to gain access to the abovementioned comforts and luxuries of life. We know that Roman citizens had better access to comforts and luxuries, as well as public amusement. It would not take a large leap of the imagination to conjure up the following scenario: A group of Roman/ized individuals living in an African town, may desire a Roman form of public amusement or comfort, such as a theatre or bath-house. After this is constructed, non-Roman/ized people could well note that Roman citizens had better seats in the theatre, and their bath-house was also, most likely, better. Thus, it would be only natural for the non-Roman/ized people to require the same type of treatment, and they would then attempt to gain this by becoming Romanized with the hope of either gaining individual citizenship, or citizenship as a group with a change in status of their town or city. Of course, this is only conjecture, although based on solid evidence, as shown throughout this document. It is also worth mentioning that value as ascribed by cultures and even sub-groups within specific cultures differs which could have an impact on my inferences.

Warmington (1954:39-55) explains the nature of municipal patronage, and one may deduce that this was important in connection with the protection of a city or town against abuse by other urban areas or large-scale landowners. It is fairly clear that such patrons were either Roman or Romanized natives. Thus, it would appear that such a status, namely of being a Roman citizen, allowed one to function more effectively when approaching public officials or arguing in court. Surely this would not have gone unnoticed by native North Africans. In fact, the fact that these cities and towns took such men as described above as patrons, points to them being aware of a bias in favour of Roman citizens. This situation, clearly connected with urbanization and the expansion of land cultivation, should also have added to the attractive culture of the Romans in the eyes of the native North Africans.

Duncan-Jones (1963:86) mentions a private donation by an unknown donor, in Siagu, specifically for the holding of Roman style games on a regular yearly basis. This was a former Punic town, and the holding of Roman games points towards some kind of Romanization. Yet I would argue that what is related above, in respect of natives noting the better treatment given to Roman citizens, also applies in this instance. Thus, these games would have led to an increase in Romanization, resulting in an increase in urban construction in the Roman style, especially amenities, and these, in turn would have resulted in an increase in aspects of Romanization. From this I would argue that a clear relationship existed between these factors contributing towards the expansion of each other.

Brown (1968:89) claims: "I would suggest that there was only one 'language of culture' in Late Roman Africa – that was Latin." As he uses this to explain the rapid spread of Christianity, I want to add that, without large-scale urbanization, this rapid spread could not have been possible. Therefore, if this was the case, it would point to urban centres being conduits for the spread of religion, specifically the Christian religion, as practised in the western Roman Empire, emanating in Romanization. Thus, urbanization once more appears to contribute towards Romanization. Moreover, those who adopted this faith would have contributed to building urban structures such as churches, which would have continued the spread of such a Romanizing religion, hence creating an interplay between these factors.

Garnsey (1970:47) states: "By the end of the second century most new recruits were the offspring of the unions of soldiers with women of the *canabae*, the civilian settlement which grew up near the camps." These urban settlements often became towns or even cities. Their

creation came about for various reasons – trade between soldiers and natives being one such factor. This mixing of parental origin would, most likely, have added to Romanization, and as these cities/towns increased in size, a greater number of natives would have been exposed to Romanization. It is quite clear that these urban areas came about through the effects of Romanization, but also added to its spread. Garnsey (1971:116) points out that

[n]umerous inscriptions from different parts of the Empire, and particularly from North Africa, testify to the munificence of the urban aristocracy. By munificence I mean the spending of wealthy individuals on, for example, monuments or projects of construction of one sort or another for their cities, or handouts of money, food or other commodities to their fellow-citizens.

I would argue that a non-Romanized native North African, who witnessed the wealth and power of such Romanized individuals, could well, and most probably did, desire such a social position for themselves and/or their children. This may well have led to an increase in Romanization. Thus, the spending of members of the social elite on urban constructions and doles could have added to Romanization, which in turn would have led to more expenditure on handouts and urban constructions. It could also be stated that this contributed to land cultivation, as many of the social elite had large rural estates, and some gained their wealth from land cultivation. Therefore, there is an argument to be made for land cultivation, allowing the social elite to gain the needed funds for urban constructions, which in turn would cause a repetition of this cycle. In support of this theory, Brunt (1975:619-635) notes the large-scale land ownership by Roman elites, as does Kehoe (1984:241-263). Shaw (1980:39) highlights the fact that aqueducts were not needed for urban development: “Hence an apparent contradiction: urban development did not depend on water supply by aqueduct which seems to have been destined for public consumption of water in modes peculiar to the ideological concept of a ‘Roman city’.” He also points out that at Carthage, aqueducts were only built after urban growth had already taken place. This would appear to support the view which I have expressed above, namely that the increase of urbanization did not occur in isolation but in connection with land cultivation and Romanization. Added to this, Shaw (1980:41) points out the use of mosaics by the Romanized urban elite, which is relevant when one considers that this is a typically Roman/ized use of wealth.

Varner (1990:10-19), as discussed above, holds the view that the Roman clothing depicted on portrait *stelae* appears to indicate Romanization. One may add that these *stelae* in itself point towards Romanization because of the fact that it was mainly a Roman cultural practice to put up *stelae*. In connection with this, the fact that this occurred almost exclusively in urban areas, also seems to support the view that inhabitants of cities and towns also adopted Romanized cultural habits. Rubin (1991:201-202) states:

In the desert and sub-desert regions of Tripolitania, Mauritania, and Numidia, archaeological surveys have uncovered hundreds of olive presses in areas where no olive trees are known to have existed in modern times...The vast number of oil presses found on the desert fringes of North Africa...strongly imply that the introduction of the olive tree into the area was a significant part of its Romanization.

I agree with Rubin and I am also reminded of wheat and wine production, which he mentions as Romanizing factors. My view is based on the fact that these crops required a non-nomadic form of agriculture in order to be productive. Hence, one may see it as a Romanizing factor in the following way: The introduction of a settled form of land cultivation near urban centres – which we already know were a Romanizing influence – exposed native North Africans to a greater number of Romanizing factors. Moreover, as mentioned above, these farming practices provided the Romanized urban elite with the necessary funds for the construction of amenities as discussed above, and in this way contributed towards Romanization.

Furthermore, the relationship between these Romanizing factors, namely urbanization and land cultivation, can be clearly observed. I deduce that the evidence provided above indicates that these factors did not only contribute singularly to cultural change, but the complex interplay and influence that they had on each other seems to have been self-replicating, with each one increasing the occurrence of the other. Cherry (1997:72) states that

in almost every case we cannot discern the motives of the Romanized. Roman-style names and clothes, and/or at least a rudimentary knowledge of Latin – these were among the prerequisites of promotion, in army life or in the bureaucracy. I wonder whether those who

embraced Roman custom merely because it was expedient to do so can really be said to have been acculturated.

I would argue that the reasons for adopting certain Roman cultural aspects did not change the fact that such an adoption was a form of Romanization. However, this is not what I would like to point out; instead, it is my point of view that most bureaucracies existed mainly because of urbanization. Moreover, if Romanization resulted from a wish to advance in such bureaucracies, which would not have existed without an increased urbanization and land cultivation, then this supports my views which are expressed above. Brett and Fentress (1997:53) relate how, under the Roman rule, large areas of tribal land came to be owned privately by leading tribesmen who then sold their crops in cities. As time went by, these landowners became more urbanized, and eventually Romanized. Thus, we could well constitute a connection between land cultivation, urbanization, and Romanization. Furthermore, I have mostly argued above how urbanization and Romanization led to land cultivation, which formed an interrelationship leading to a united increase in these three factors. Furthermore, what Brett and Fentress (1997) have argued above, can be seen as an example of how land cultivation initiated this process.

Rives (2001:426) has the following to say about the Roman imperial cult: “First, it is attested at a fairly early date even in the small towns of Africa, suggesting that it spread quite rapidly. Secondly, it seems to have been closely linked with the spread of Roman culture.” I agree with this view and would like to point out that the existence of urban centres appears to have supported this rapid spread. Therefore, this could act as evidence, supporting the view that urbanization increased Romanization. Raven (2003:82) states: “Only one in six North Africans – perhaps as few as one in ten – lived in the towns; directly or indirectly, and usually directly, the town-dwellers’ wealth was founded on the labour of the remaining population, the rural poor.” This appears to contradict the theory of urbanization leading to Romanization. However, even in respect of these so-called rural poor people, increased urbanization and land cultivation would have exposed them to Romanization and in turn added to its increase.

It should again be emphasized that a lack of evidence exists in respect of the rural population of Roman North Africa although, to my mind, the evidence provided in section 4.2 appears to support my theory concerning the relationship between urbanization, land cultivation, and Romanization. Fentress (2006:22-27) agrees with this point, by indicating that the rural

population could have been exposed to many of the Romanizing factors found in urban areas and in fact, could not have avoided contact with urban areas and therefore Romanizing factors. Thus, a similar process should have been involved in respect of the rural and urban populations in connection with the process of Romanization. Moreover, this once again points to the interrelationship of urbanization, land cultivation, and Romanization. Cilliers (2006:52) relates that North Africa was, as stated in section 4.1, a rich agricultural asset to the Roman Empire, although she goes further by stating that only under settled conditions could such prosperity have been possible. She also holds the view that lower-class inhabitants of North Africa went through similar processes of Romanization as the upper class.

Law (2008:202-204) highlights the extensive nature of urbanization and land cultivation, as well as Romanization, and how urbanization contributed to the latter. I would argue that, although the connection is not directly implied, when one peruses his work, one may deduce a link between urbanization, land cultivation, and Romanization based on the evidence provided above, as well as the fact that he shows that its increase occurred mutually. These factors could have increased independently during the same period, although in the light of the above evidence this seems unlikely to have been the case. I therefore argue that the evidence provided above appears to show a clear link between these factors.

Tidemann (2009:141-142) relates that mosaics in North Africa under the Roman rule, initially showed Punic influences, but by the 2nd century AD they clearly demonstrated a large degree of Romanization. Whether the depictions on North African mosaics added to Romanization, is debatable. Yet they could well have had such an influence on their viewers, while the necessity for at least some amount of urbanization in relation to their production should be noted, as urban areas are necessary for their display. Sears (2011:42) highlights the important role that cities played in the Romanization of native elites – this also supports some of my views expressed above.

Leone (2012:119-133) shows how the Roman governance was necessary in respect of increased land cultivation. This, in her view, was brought about through an increase in effective water management and imperial legislation. Moreover, this increase in land cultivation correlated with an increase in urbanization, as she puts it. Hence, this once again illustrates the relationship between these two factors and if, as the evidence above suggests, this led to an increase in Romanization, there could be a two-way relationship taking place

between urbanization/land cultivation and Romanization. Hobson (2012:220-223) supports Leone's views. Cordovana (2012:473-476), although being of the view that local thought, feeling, and desire were the main causes of Romanization, does support Hobson (2012) and Leone (2012) concerning the contribution of land cultivation, Roman administration, and urbanization towards each other and by extension, Romanization. Hoyer (2013:580-582) also supports these views and highlights how increased urbanization and land cultivation, as well as the Romanization of elites culminated in an increase in monetization of the North African economy which in turn led to an increase in land cultivation and urbanization. This would surely also have increased Romanization, and caused a repetitive cycle to occur, as suggested above.

Vanacker (2014:103) states that urbanization was not necessary for Romanization to take place and explains that various other factors could have led to Romanization. Although I agree that we should not over-emphasise the urban evidence and urbanization when considering Romanization, one cannot ignore the evidence as such. Thus, although respecting Vanacker's views, the evidence leads me to conclude that my own theory appears more likely. Cilliers (2014:80-91) not only explains the extensive evidence of Romanization found in depictions on mosaics, but also gives a view on the presence of Romanization in respect of buildings and cultural practices in six North African cities. She states, for example that even in Christian times, the arena in Carthage was still in use. This supports my view of urban areas as Romanizing factor and supports my theory in general. The cities that she covers in her document are Carthage, Hippo Regius, Thugga, Thysdrus, Lambaesis, and Lepcis Magna.

4.3.3 Deduction

As shown above, there appears to be a direct relationship between urbanization, land cultivation, and Romanization in which one factor not only influenced the others, but where a self-replicating process occurred. I argue that the evidence suggests this, and that although this theory may be doubtful, it seems to be the correct one based on historical reasoning and source criticism techniques and methodologies as applied by the scholars in the sources which were consulted.

4.4 The Role of Groupthink and Climate Change

4.4.1 Introduction

Below I will briefly deal with the roles of groupthink and climate change in relation to the main topic of this study. I will not be covering these concepts in extreme depth, as this would go beyond the scope of this study. I will merely attempt to give some indications of the possible nature and effects that they had on Romanization, urbanization, and land cultivation.

4.4.2 Groupthink

Greenberg (2011:376) defines the term “groupthink” as follows: “The tendency for members of highly cohesive groups to so strongly conform to group pressures regarding a certain decision that they fail to think critically, rejecting the potentially correcting influences of outsiders.” Grieve, Van Deventer, and Mojapelo-Batka (2006:49) highlight the fact that groupthink does not always have to lead to negative or incorrect choices. In many cases it could well lead to positive and beneficial options being selected by a group and its members.

In respect of the choice by native group members in North Africa to become Romanized or not, groupthink could have been either a negative or a positive influence. Mynhardt (2011:119-120) explains how a group may ignore the views of outsiders. If we view the Romans in North Africa as outsiders from a native perspective, then groupthink could have caused natives to avoid adopting a Romanized lifestyle or practices. Yet if native groups adopted the view that Romanization was desirable, then groupthink may have contributed towards an increase in Romanization. Moreover, Tetlock (1979:1314) claims: “Political decisions are not, of course, made in a social vacuum. They are usually made in organized group contexts in which implicit and explicit norms regulate the conduct of the decision maker.” Thus, decisions by political leaders during Roman times cannot be regarded as occurring in isolation. These decisions may reflect the activity of groupthink, for example the Romanization of the Mauretanian capital by Juba the Second and Cleopatra Selene may reflect the presence of groupthink. By this I mean that both Juba the Second, as well as his wife, Cleopatra Selene may have acted based not only on their own Romanized natures, which could well have been extensive as both were raised in Rome, but they could have responded to a desire for Romanization by the general populace of Mauretania. Furthermore, the lack of a large military garrison could show that Roman emperors viewed the area as fairly stable and secure. One may ask, why? If the area was unstable a large garrison would be needed to maintain order. The absence of such a force could indicate that the area was not

insecure. This may be the reason why Roman Emperors did not station large garrisons in this area. This in turn could reflect the view that most natives were pro-Roman rule which may be a sign of groupthink being present. The raising of various towns and cities to Roman colony status by Claudius and other emperors, since AD 48, may also be a sign of large-scale Romanization, which in turn could point to the activity of groupthink. Moreover, the universal grant of citizenship by Caracalla in AD 212 may be viewed as a sign that Romanization was already widespread throughout the Roman territories, and this could possibly point towards the presence of groupthink in North Africa. It should also be mentioned that native North Africans were exposed to factors that Janis (1982; cf. Schafer & Crichlow 1996:418) highlights as leading to groupthink. The main factors in this case, especially after the civil war following Caesar's death in 44 BC, and in the aftermath of the various North African revolts, were recent failures, pressures towards uniformity, and high personal stress, as well as a lack of traditional methodical procedures and possibly time constraints. Recent failures were visible in the decision of most North Africans to support Pompey against Caesar, and Caesar's subsequent victory. This could have led to high levels of personal stress and pressure towards uniformity in the shape of a wish by native North Africans to atone for a perceived slight against the victorious Caesar. This would also have added a time factor. By this I mean that they would like to quickly prove their loyalty to Caesar. Moreover, a central government was not highly evolved within native cultures at this time, as can be deduced from the frequent conflicting decisions made by various tribal leaders (as shown in Chapter 3). Thus, there appears to be a lack of methodical planning concerning strategic decisions made by their leadership which had effects on most of the native groups. Yet, the fact that most of these groups viewed themselves as separate from each other may have been a factor in decentralization.

The role that the Romanized social elite played in spreading groupthink, should also be considered. Gladwell (2000:30-88) describes how ideas are spread within societies and specifically cultural groups. His findings appear to show that even when only a few members of a group are exposed to an idea, that idea could quickly spread throughout the group. The native North African elites were exposed to the Roman culture, and as discussed above, found Romanization desirable. They, in turn, exposed other natives to this way of thinking, and as respected members of this group, their views would have had a large degree of influence on the middle and lower classes. Therefore, it could be the case that an increased Romanization

among the local elite resulted in groupthink occurring more generally among native North Africans.

Goldman (2004:11-15) holds the view that people make decisions based on what is good for themselves, not necessarily for the whole group. Thus, if the social elite's concept of desirability concerning Romanization spread to the lower classes, the self-serving nature of humans could have escalated this individual concept into the occurrence of groupthink. Solomon (2006:31-35) also supports the view that when a small social elite decides to follow a certain course of action, they could be followed by other members of their social group as a result of groupthink, as described above. Pautz and Forrer (2013:2) also identify bias in social leaders as a factor leading to groupthink. This supports the argument above concerning the role of the native elite in perpetuating groupthink. Sims and Sauser (2013:79) state that once groupthink starts to occur, it appears to lead to its own increase. Thus, even if the role of the Romanized native elite in North Africa led only to a minor degree of groupthink among other native groups, this would have started an ever-increasing prevalence of this phenomenon.

Harel *et al.* (2019) show that a smaller group may develop groupthink as a process of observant learning. Thus, if a member of the native North African elite observes that positive results occur because a peer has become Romanized, this may lead to a continued cycle of observation and adoption directed by groupthink. Therefore, considering this, I draw the conclusion that the desirability of Romanization, as discussed above, in respect of native elites, resulted in groupthink within this social class. This, in turn, led to groupthink among other classes of the native population.

It must be stated that a lack of evidence makes a statistical analysis difficult, although I used the evidence provided by Mattingly (1987:71-94) as well as Cherry (1997:71-83) to conduct such analyses (cf. section 4.2). Using descriptive statistics, we find that out of a population of 544 only 18 were not Romanized, which leaves 526 as either Romans or Romanized. Thus, if these figures are accurate, then they would suggest the probability of not being Romanized was 3.3% (calculation used: $18 \times 100 = 1800 \div 544 = 3.3 \%$). This is extremely low when compared with the likelihood of being Romanizing or Roman, namely 96.7% (calculation used: $526 \times 100 = 52600 \div 544 = 96.7 \%$). Of course, this analysis is based on limited evidence, and merely compares the likelihood of being Roman/ized with not being so. Yet it does point towards a large degree of Romanization, and this could indicate that Romanization

was encouraged within native groups. This may be an indication that groupthink took place, as the large number of Roman/ized cases suggests that groupthink did not discourage Romanization. If, in fact, groupthink did increase Romanization, then, as shown above, this would have led to an increase in land cultivation and urbanization. Thus, this process would have reinforced the two-way relationship between urbanization, land cultivation, and Romanization.

4.4.3 Climate Change

Graham (1902:57) states that North Africa provided Rome with 300,000 gallons of olive oil in respect of taxes. Moreover, he also states that Lepcis Magna once paid a fine of two and a half million pounds of olive oil. Graham (1902:57) also quotes Pliny the Elder (*Hist Nat XVIII.22*) when describing how good the climate was for agricultural purposes. Pliny the Elder relates:

There is a city-state of Africa called Tacape, in the middle of the desert on the route to the Syrtes and Great Leptis, which has the exceptionally marvellous blessing of a well-watered soil...But the unique point is that there are two vintages a year, the vines bearing twice over; and if fertility were not exhausted by multiplied production, each crop would be killed by its own exuberance, but as it is, something is being gathered all the year round, and yet it is an absolute fact that this fertility receives no assistance from human beings (Pliny 1942:307).

Abagandura and Park (2016:59-60) state that around 95% of modern-day Libya consists of unfarmable desert. They have provided information concerning crop yield in 2012 which is listed below:

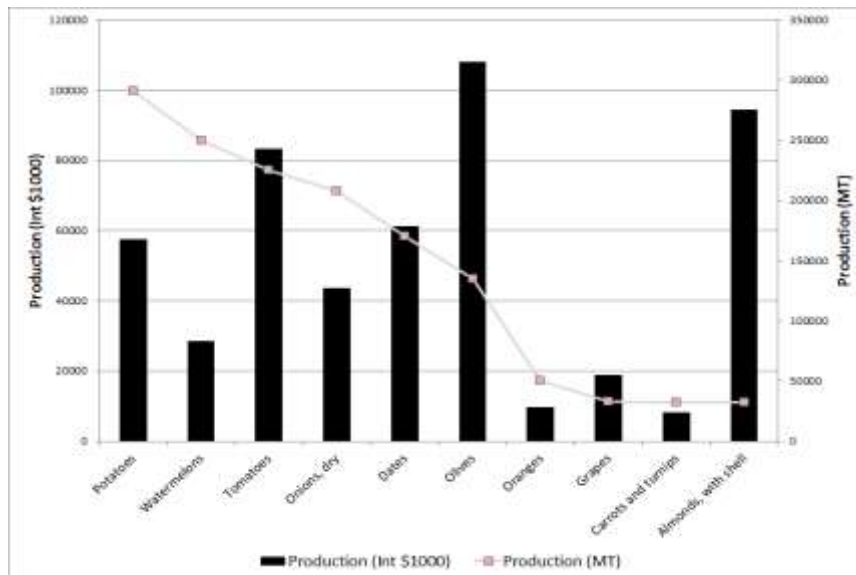


Figure 10: The main crop produced in Libya in metric tons with the international prices in US\$1,000 (Abagandura & Park 2016:60).

It is clear from this data that olive production amounted to about 320,000 metric tons. Even if this relates mainly to olives and not olive oil, it can still be regarded as significantly more than the production in ancient times, when it is compared to data provided in this chapter. Yet the reasons for this could be the use of modern technologies and methods. Berndtsson (1987:91) states that Tunisia is situated in a meteorological transition zone, which leads to erratic weather patterns. Furthermore, he also relates that it is in a drought prone area. Hassini *et al.* (2011:271) argue that regular drought conditions occur in Algeria, while Ait Brahim *et al.* (2017:1375-1383) make similar statements about Morocco. Thus, if similar conditions were present during the period, 146 BC to AD 429, Roman North Africa can be regarded as an arid area. Yet there may be reasons to believe that changes took place during this period which may have increased arid conditions. A recent study by Gilgen, Wilkenskjeld, Kaplan, Kühn, and Lohmann (2019) has shown that deforestation by the Romans could have increased temperatures in North Africa. As this would have coincided with a natural period of warming between 250 BC to AD 400, we could speculate that at the very least this could worsen drought conditions in North Africa. McCormick, Büntgen, Cane, Cook, Harper, Huybers, Litt, Manning, Mayewski, More, Nicolussi, and Tegel (2012:174) state that the 1st and 2nd centuries AD have shown increased temperatures in the area under discussion. They base this on data collected from sources such as speleothem, ice cores, dendrodate, and Eifel maars. Elliott (2016:18-28), although concerned with effects of the Antonine plague on the Egyptian population, discusses climate changes globally during the 2nd and 3rd centuries AD. He claims

that volcanic eruptions led to an increase in sulphate aerosols which reduced water evaporation and resulted in arid conditions increasing globally. Furthermore, he uses tephrochronology records concerning volcanic eruptions to prove an increase in such eruptions during the period under discussion. The following figure, found in his work, is useful here:

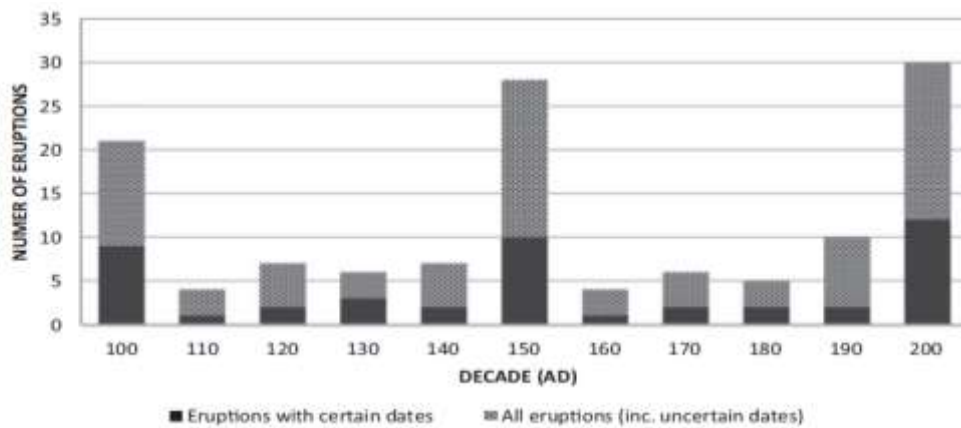
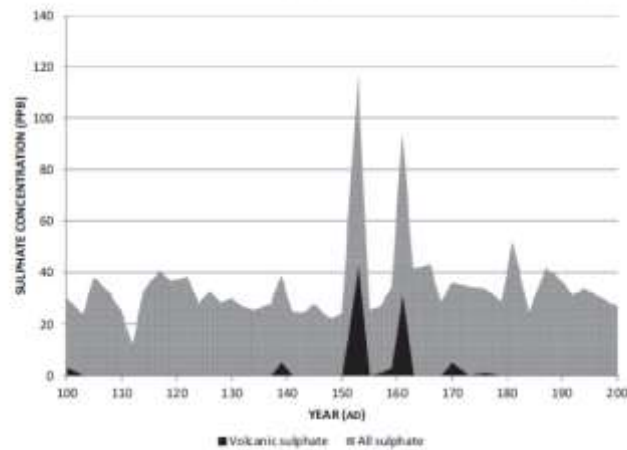


Figure 11: Volcanic eruptions by decade in the 2nd century AD (Elliott 2016:21).

He also makes use of data on sulphate concentrations to support his views, as the following figure shows:



* Source: G. A. Zielinski and G. R. Mershon, 'GISP2 Volcanic Markers', Greenland Ice Sheet Project 2 (1999), at <ftp://ftp.ncdc.noaa.gov/pub/data/paleo/icecore/greenland/summit/gisp2/chem/volcano.txt>; Benoit Rossignol and Sébastien Durost, 'Volcanisme Global et Variations Climatiques de Courte Durée Dans l'Histoire Romaine (Ier S. Av. J.-C. - IVème S. Ap. J.-C.): Leçons D'une Archive Glaciaire (GISP2)', *Jahrbuch Des Römisch-Germanischen Zentralmuseums Mainz*, liv (2007); Rossignol, 'Le Climat, Les Famines et La Guerre: Éléments Du Contexte de La Peste Antonine', 25.

Figure 12: Greenland Ice Sheet Project (GISP 2) Volcanic Markers (AD 100-200) (Elliott 2016:23).

That the abovementioned increase in sulphates had a global effect, he attempts to prove by the use of dendrochronological data from Colorado as indicated in the following figure:

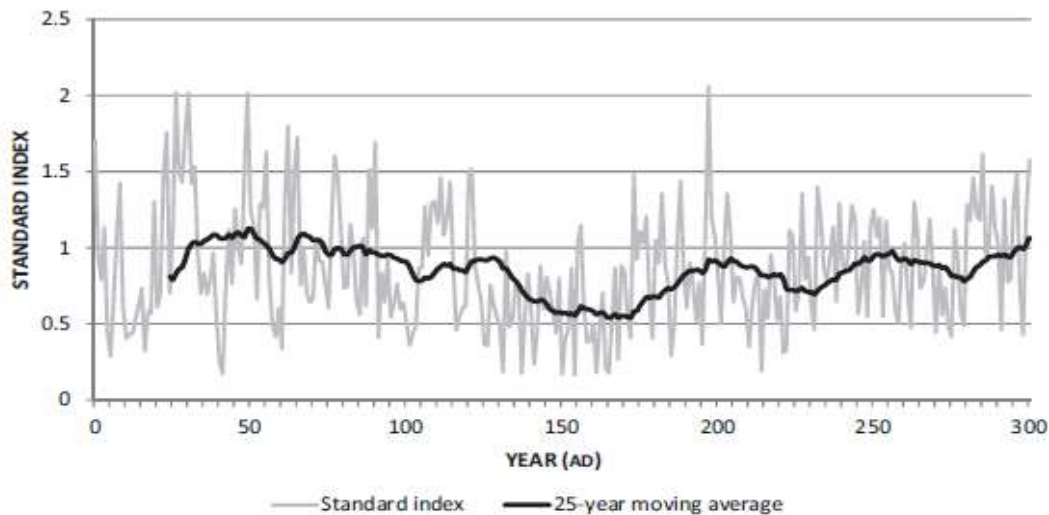


Figure 13: Bristlecone Pine Chronology from Summitville, Colorado (Elliott 2016:25).

Moreover, he also uses primary evidence in the form of governmental reports from Egypt concerning failed Nile flooding to prove his theory of a global decrease in rainfall as can be seen in the following figure:

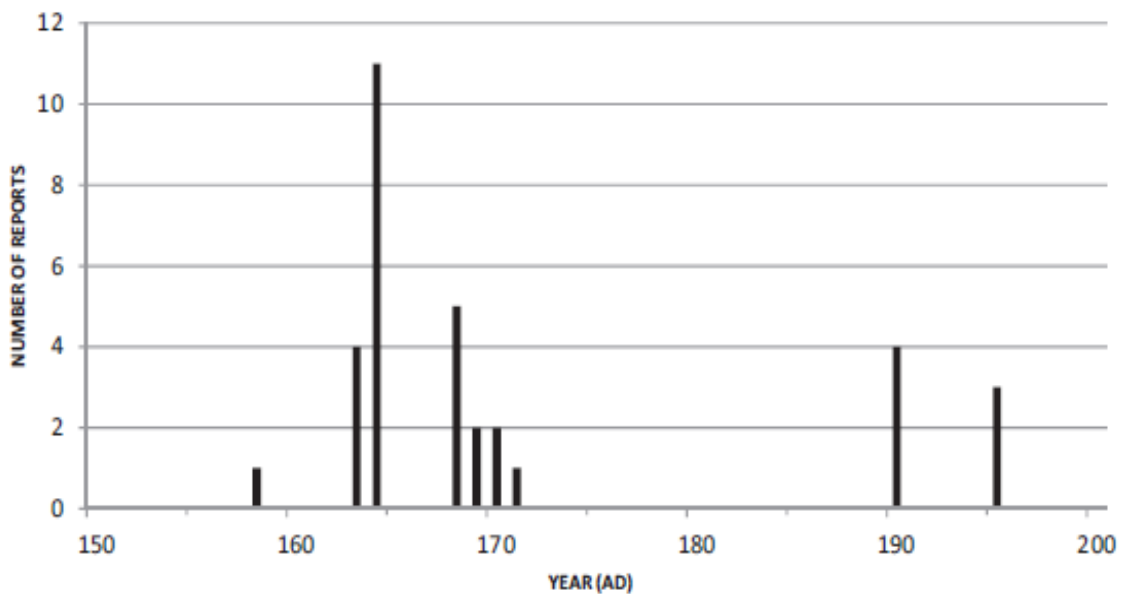


Figure 14: Reports of failed Nile flooding (Abrochia) of farmland in the Nile delta (Elliott 2016:27).

When these four figures shown above, are compared, they suggest that an increase in arid conditions in Roman North Africa during the 2nd and 3rd centuries AD was likely. Elliott (2016:20-21) also relates that the climate effects which he mentions can be proven in modern

times by the Mount Pinatubo eruption in June 1991 in the Philippines, which resulted in a global drop in rainfall for almost a year.

Büntgen *et al.* (2011:581), while discussing climate change in Europe due to deforestation, provide the following figure based on tree growth patterns:

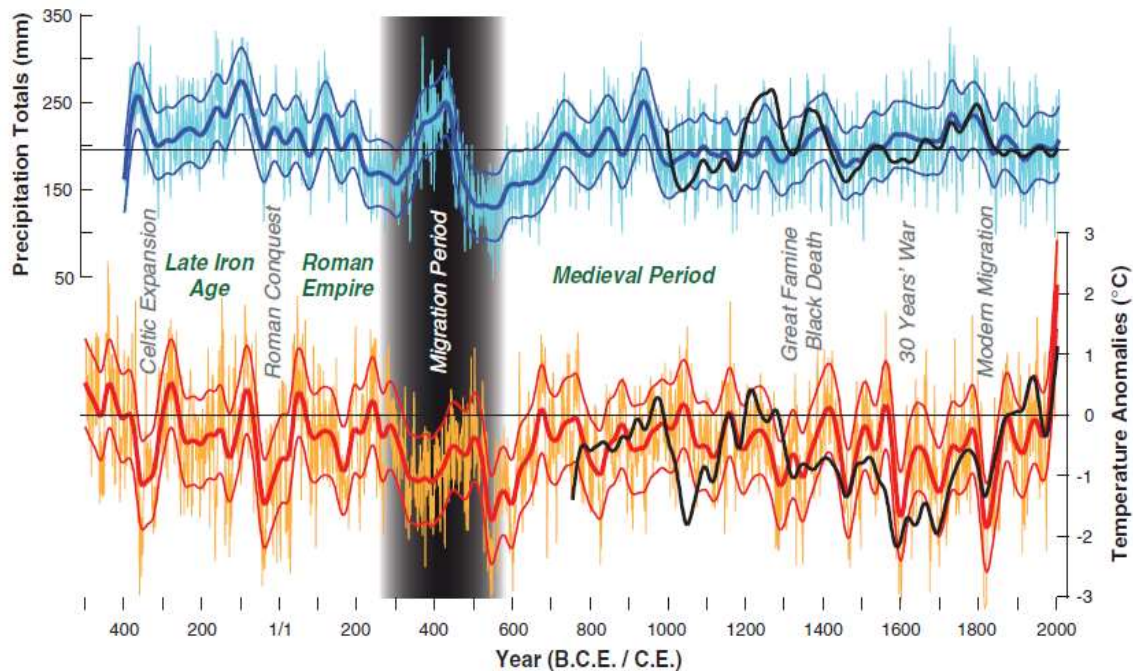


Figure 15: Reconstructed AMJ precipitation totals (top) and JJA temperature anomalies (bottom) with respect to the 1901-2000 period. Error bars are ± 1 RMSE of the calibration periods. The black lines show independent precipitation and temperature reconstructions from Germany (19) and Switzerland (18). Bold lines are 60 year low-pass filters. Periods of demographic expansion, economic prosperity, and societal stability are noted, as are periods of political turmoil, cultural change, and population instability (Büntgen *et al.* 2011:581). This data clearly shows an increase in arid conditions in Europe, and although the authors do not link this to volcanic activity, a correlation with the data provided above appears possible.

Cheddadi *et al.* (2015:242) claim the following:

Our data suggest that human use of forest resources was less drastic prior to the expansion of the Roman Empire throughout the whole Mediterranean region. In Morocco, pollen records from both the Middle Atlas and the Rif Mountains tend to confirm such strengthening of human activities during the spread of the Roman Empire.

That local deforestation can have negative effects on local and even global rainfall patterns, is discussed by Büntgen *et al.* (2011:578-582). This deforestation could also have led to a decrease in rainfall in Roman North Africa. Reale and Dirmeyer (2000:163-184, specifically 165-169) used ancient literary and archaeological sources to develop the following table and maps:

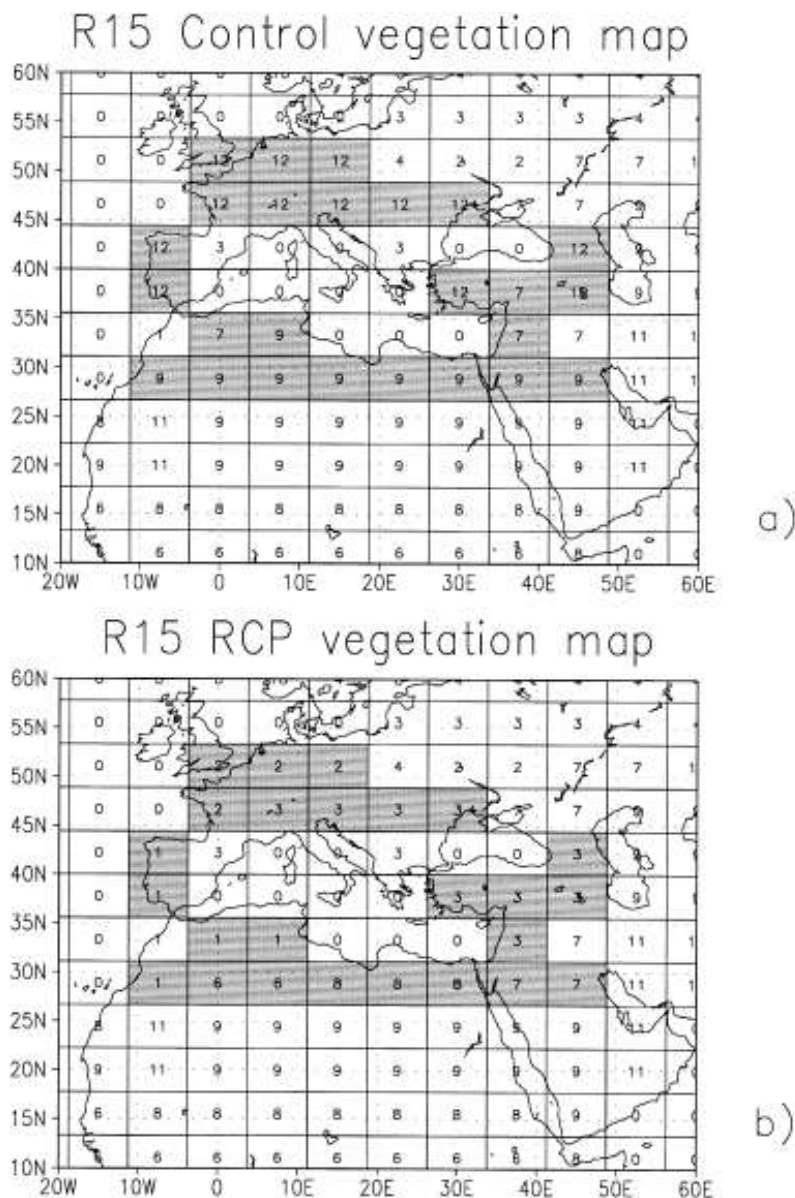


Figure 16: Vegetation map at R15 solution. The numbers correspond to the vegetation types and are listed in Table 5 (below). Panel a): Control. Panel b): Roman Classical Period (RCP). Shading indicates grid boxes where modern and RCP vegetation differ (Reale & Dirmeyer 2000:174).

-
1. Broadleaf–evergreen trees (tropical or Mediterranean forest)
 2. Broadleaf–deciduous trees
 3. Broadleaf and needle-leaf trees (mixed forest)
 4. Needle-leaf–evergreen trees
 5. Needle-leaf–deciduous trees (larch)
 6. Broadleaf trees with groundcover (savanna)
 7. Groundcover only (perennial)
 8. Broadleaf shrubs with perennial groundcover
 9. Broadleaf shrubs with bare soil
 10. Dwarf trees and shrubs with groundcover (tundra)
 11. Bare soil
 12. Winter wheat and broadleaf–deciduous trees (cultivated)
-

Table 5: Vegetation types in SSiB (Reale & Dirmeyer 2000:173).

These maps show that during the RCP, large-scale changes in respect of vegetation took place in North Africa. Once again, it is possible that this could have led to a decrease in rainfall. Moreover, these changes could also have made forage for nomadic livestock less abundant.

Fagan (2010:197-201) highlights the fact that almost all theories concerning the reasons behind a change from a nomadic lifestyle to a more urban land cultivating style, regard arid drought-like conditions and erratic weather patterns as driving forces behind such a shift in cultural practice. Thus, if the Romans caused (or added to) climate change, as described above, resulting in arid conditions in North Africa, as well as unpredictable weather patterns, these changes may have led to nomadic groups being inclined towards land cultivation and by extension, urbanization. If this was the case, then these factors would have resulted in an increase in Romanization. Climate change may therefore be argued to have encouraged, if only indirectly, Romanization. This view does not necessarily conflict with the views of authors such as Pliny the Elder (*Hist Nat* XVIII.22), concerning the favourable nature of the climate in North Africa for land cultivation. As shown above, modern-day Libya produces extensive amounts of various crops. Thus, although native North Africans may have been inclined towards land cultivation because climate change could have made a nomadic lifestyle more difficult than previously, they could still have attained high yields in respect of crops such as olive oil, even though weather conditions had declined.

4.4.4 Deduction

In the previous sections, I have briefly covered the possible roles of groupthink and climate change towards Romanization. A lack of evidence makes such an enterprise difficult. As it was not my intention to provide an in-depth study of these factors, I merely gave a general idea of how they could have affected Romanization. The need for further studies into these areas is evident, and I hope that what I have done above may encourage further research into these topics.

4.5 The Limited Adoption of Pre-Roman Greek and Punic Cultural Practices

4.5.1 Introduction

In this section, I will briefly show why pre-Roman urban cultures – Greek and Punic – did not have such extensive effects on nomadic groups as the Romans did.

4.5.2 Punic Influences

Albright (1941:14-22) uses inscriptions to show that a Punic colonization was not extensive. Although this work is quite dated, it is one of the first in which proper historical sources were used to form a view on this topic. Carpenter (1958:39-42) – equally dated – states that evidence in the form of pottery suggests that the Punic occupation at Carthage occurred from the 7th century BC. Moreover, he states that no other Punic sites in North Africa can be accurately dated to a date before the 5th century BC.

Raven (2003:7-32) explains that Phoenician settlements on the coast of North Africa were established for economic reasons, being placed along the sea-routes followed by Phoenician ships trading tin in Spain. These settlements were not intended to expand into the mainland and did not do so for many centuries. Carthage, which became the foremost of these settlements, and exercised over-lordship over them, only started such expansion after the Greek encroachment into their spheres of trade caused an economic decline. Moreover, their expansion inland was based on becoming independent from outside supplies of food. Thus, they expanded only enough to meet this need. This is clearly very different from the Roman expansions into North Africa, not only concerning motives, but also extent. It is clear that native groups such as the Numidians, who supplied soldiers to Carthage and were in close proximity to Punic areas of control, did adopt some Phoenician practices, albeit limited. Some natives even farmed land in what can be considered Carthaginian territory, but did so in a

tributary system, and appeared to have been left alone in most other respects. Therefore, Carthage did not exercise any form of direct governorship over these people to a noticeable extent, and in fact, their involvement was mainly resented by these groups. This can be seen in numerous revolts by them, as well as their lack of moral fibre on the battlefield (they were not fighting effectively and being routed easily), when serving in Carthaginian armies. Law (2008:116-140) describes the Carthaginian relationship towards native North Africans in a similar vein as Raven (2003). However, he goes further by showing how Carthage paid tribute to native groups till the late 5th century BC. He also claims that Carthage's empire was an economic one, not an imperial one such as Rome's would later become. He argues that some co-influence did occur in respect of Punic-native relations, but views these as being limited.

Ilevbare (1974:194-197) states that the Punic influence on natives occurred through their control of large areas of North Africa. He specifically states that all of what became the Roman province of Africa in 146 BC, was formerly controlled by Carthage. Moreover, he declares that Appian (*Libyca* 54) relates the existence of a Punic outpost deeper inside the North African hinterland, for the protection of traders. These trade relations could have increased cross-cultural spread. Spagnoli (2004:173-180) in turn asserts that identifying a Punic influence in respect of religious buildings is difficult, but according to her research, a Punic influence may have been extensive, based on Punic style temples and altars present in Tunisia. Martin (2011:7-8), referring to Polybius (*The Histories* 1.72.3), relates that Carthage treated native North Africans with extreme cruelty and disdain. This also contributed towards revolts, and clearly reduced the likelihood of natives adopting Punic cultural practices.

Van Dommelen (2014:42-57) explains that our modern, mainly western view of colonialism could influence us towards over-stating the impact which the Punic culture had on native North Africans. Telmini *et al.* (2014:113-147) highlight the fact that Punic cultural elements such as burial customs spread into native North African areas from the 6th century BC. Moreover, they state that the role that Carthage played in the spread of political, religious, and economic cultural elements, cannot be understated. Yet they do hold the view that it is difficult to accurately show how large the Punic influence truly was. They base their findings on the similarity, or lack thereof, of Punic cultural elements in native North African graves. Younès and Younès (2014:148-168), specifically focussing on the Numidians, also highlight the spread of Punic burial customs among native North Africans. However, they show that although a clear Punic influence can be detected, native non-Punic cultural elements are

clearly present, for example the burial of children along with adults was non-Punic, as was the habit of extreme respect given to the skull. Furthermore, the majority of such graves contain bodies which were buried without flesh being present. Presumably the bodies were buried in other graves until their flesh naturally disappeared through the activity of insects, etc. This was also a non-Punic custom. So, although some Punic influences were present, it is almost impossible to conclude to what extent these native North Africans were Punicized, as the evidence appears to suggest that a non-Punic culture dominated most of the Punic influences.

Bridoux (2014:180-201), on the other hand, holds the view that a Punic influence on the Numidians was extensive. She relates that ancient sources show increased political connections between Carthage and Numidia after the 3rd century BC. Massinissa, a Massylian prince, was raised in Carthage, and marriages between Massylian princes and Carthaginian women took place. In connection with Massinissa, she states that when he became king, Punic became the official language of Numidia. Moreover, she uses the large amount of Punic pottery present in Numidia to illustrate the Punic cultural spread.

In opposition to these points, it should be stated that political marriages did not necessarily lead to a cross-cultural adoption of customs. Furthermore, the fact that Massinissa was brought up in Carthage, could be the reason why he made Punic the national language of Numidia. This official use of Punic may not reflect its widespread use among natives, although it could have increased its use. Lastly, pottery, being an export item of most ancient states, does not have to reflect a cultural adoption, but merely trade. However, such trade may have led to increased cross-cultural practices.

Papi (2014:202-218) holds the same views as I have, concerning a Punic influence in Mauretania. However, he goes further – too far in my view – by suggesting that there were no Punic settlements in this area. He discusses archaeological sources, including pottery and buildings, and concludes that any resemblance with Punic artefacts mainly occurred as a result of trade. He states that any conflicting view is the result of our modern views concerning colonialism, and that this geographical area had a clearly native non-Punic character in respect of its inhabitants.

Nisan (2015:134-156), although a respected academic, comes to the conclusion that both the Phoenicians and Numidians were Hebrews. To regard the former people groups as Semitic, is

reasonable, and even in the case of the Numidians it could be possible. However, to suggest that they shared a similar culture and cultural practices, based on limited and possibly coincidental evidence, seems to be a biased view.

Aubert (2016:254-264) views the Phoenician expansion in North Africa as dating from the 9th century BC. She bases this view on the carbon dating of pottery remains. She also holds the view that Phoenician colonization was a clearly planned and extensive activity. If her views are correct, the native groups close to the Punic centres may have been exposed to Punic cultural influences for longer periods than most authors are willing to admit, and thus a greater degree of cross-cultural spread of customs may have occurred. It must be stated that Aubert's views are not shared by many historians, as shown above.

4.5.3 Greek Influences

Boardman (1966:156) mainly relates that the Greeks settled in the area which would become known as Cyrenaica in the late 7th century BC. Herodotus (*Hist* IV:150-159) appears to hold the view that this occurred because of a need for agricultural land and a lack of food in Greece. White (1961:445-448) also agrees that the search for agricultural land was the main reason for Greek expansion into the western Mediterranean. Moreover, she views the Greek colonization into North Africa as limited because of the presence of the Phoenicians. Stucchi, Robinson, and Descoedres (1989:73-84), on the other hand, regard economic expansion and the establishment of secure trading routes as the main reason for the founding of these settlements. Cabanes (2000) states: “Les Grecs établis à Cyrène sont des agriculteurs venus de Théra dans la seconde moitié du VII^e siècle” (*The Greeks established in Cyrene were farmers coming from Thera in the second half of the 7th century*). He also explains that the passage in Herodotus (*Hist* IV:157-158) relating to the coming of these Greeks to Cyrene was an attempt to reconcile the decisions of humans with the will of the gods in whom they believed (Cabanes 2000). Thus, the passage may not reflect the true reasons behind the colonization, but acts only as a form of social justification. Moreover, he also holds the view that Greek colonies were generally founded by only a small number of male Greeks, and intermarriage with local women would have been necessary for these colonies to be successful. This may point to a spreading, at least to some extent, of Greek cultural practices among natives in such colonies. This view is also supported by Rovik (2002:87-90) who states that Callimachus (specifically *Ap* 89-92) relates that Greek males in Cyrene preferred social interaction with native women. Couvenhes (2012) also supports the view that Greek males took native wives

shortly after the founding of a colony. However, he adds that later settlers could have included women, and that little evidence survives concerning cultural interaction between natives and Greeks. Moreover, he states that it appears that Greek cultural practices remained mostly unchanged within such colonies.

Bouffier (2016:4-8) makes three interesting points. First, that the term *apoikia* is used in Greek to describe Greek settlements which in French are referred to as *colonie*. This, according to her, is inaccurate, because *apoikia* in fact simply means “far from home,” while *colonie* carries ideological meanings present in modern times, but not in ancient times. This same situation exists in respect of the English term “colony” – we should be careful when employing it. Second, she relates that the use of Greek and native cultures expressed previously (she cites Rouillard 2009; Moatti & Kaiser 2007; Moatti 2004), did not consider that what we view as pure Greek culture could, in fact, be a post-contact culture with native elements which were already deeply ingrained. Third, she agrees with the above view that early Greek settlers mainly took native wives. Austin (2008:205-210) examines the relationship between Greeks and the native culture. It should be specifically noted that Greek men did at times marry native women, but Greek women did not do the same in respect of native men. This points towards a Greek cultural dominance and a lack of integration, rather than the opposite.

Raven (2003:7-12) discusses the role of Greek settlements in North Africa and views it as a minor. She refers to the Greek settlement of Cyrene, arguing that it had some cultural influences on Carthage. Yet she does not view their contact with native North Africans, who were most of the time hostile in nature, as having led to any degree of major cross-cultural influence. Law (2008:107-116) also states that the Greeks in Cyrenaica were mainly hostile when it came to relations with native North Africans. He states that it was likely that some Greek cultural practices may have spread to tribes around this area. He does not state which practices he is referring to, hence, we must assume that he refers to marital customs and perhaps even religious practices. How widespread such practices could have become among native groups in general, is unknown, and even unlikely. It should therefore be noted that such influence could be seen as minor compared to later degrees of cultural adoption from the Romans.

Gregory (1916:321) states that Cyrenaica was a fertile region and was called the Pentapolis because of its five urban areas. Oost (1963:13) notes that the last king of Cyrene, namely Apion, bequeathed this area to the Romans. Specifically of interest is that this included the rural areas with their native tribes. This points to Cyrene which was exercising some form of over-lordship in respect of these native North Africans – a fact that is relevant to this study. It may be an indication that even by the 1st century BC, a cultural divide existed between Greeks and natives.

Warmington (2017:13-14) relates that the Greeks in Cyrenaica adopted a native North African name for their king, and that many Greek males married native women, until later colonization increased, and hostile relations developed with native groups. This points more towards the Greeks who adopted native practices than *vice versa*. There must, however, have been some evidence of the adoption of a Greek culture by surrounding native groups, although it would have been limited to a small area, and the rapid outbreak of hostilities would have also prevented such cross-cultural spread. Thus, a general spreading of Greek cultural practices throughout a large area of North Africa appears highly unlikely.

4.5.4 Deduction

From what I have briefly stated above, it can be deduced that Punic and Greek settlements and their relations towards native North Africans were quite different from that of the later Romans. Rome's expansion was based on imperialism, while the Punic and Greek expansions were limited to and based on immediate needs regarding food, trade, and military security. Moreover, the Romans generally maintained fairly friendly relations with native North Africans, while Punic and Greek relations were mostly hostile. Thus, the reasons are quite obvious why the Punic and Greek cultural practices were not generally adopted on a large scale, whereas Roman practices were.

CHAPTER 5

CONCLUSION

5.1 Introduction

In this chapter, I will conclude my study by showing the results of my research in relation to my primary question, as well as my secondary questions.

5.2 Summary of Literature Review

Briefly stated in this study, I made use of classical sources, both contemporary and near contemporary. These include Pliny the Elder's work, *The Natural History* (Pliny 1942), Sallust's *The Jugurthine War* (Sallust 2010), Augustine's *Confessions*, as well as his *Epistula ad Romanos inchoata expositio De Magistro* and *Enarrationes in Psalmos* (Augustine 1955) as cited by modern authors. Moreover, the same applies to Appian's *Libyca* (Ilevbare 1974), Polybius' *The Histories* (Martin 2011), and Callimachus' *Apotheosis* (Rovik 2002). Use was also made of Strabo's *Geography* (Strabo 1967) and Corippus' poetic verse (Corippus 1998). Furthermore, Herodotus' *Histories* (Herodotus 2003), Tacitus' *Annals* (Tacitus 2004), and Apuleius' *The Defense* (Apuleius 2015) were also used.

Bruun and Edmondson (2014), Saastamoinen (2010), and The Heidelberg Academy of Sciences and Humanities' photographic data base of inscriptions were used in respect of epigraphic evidence.

Various modern authors were used, but of special note are Graham (1902), Murphey (1951), Smith (1998), Gibbins (2001), Stone (2014), as well as Sycamore and Buchanan (2016) regarding land cultivation. Millar (1968), Mattingly (1987), Meyer (1990), Cherry (1998), Norman (2002, 2003), Quinn (2003), Lagaard (2008), Straughn (2013), and McLaughlin (2015) were consulted in relation to Romanization. Mattingly and Hitchner (1995) were used in connection with urbanization. There were also numerous authors who could not be placed under a single category of importance (cf. the Literature Review for more detail). However, I will briefly mention a few of the most important authors. Varner (1990), Cherry (1997), Raven (2003), Hobson (2012), and Vanacker (2014) were all of importance to this study, especially with reference to the connection between Romanization, urbanization, and land

cultivation. Reale and Dirmeyer (2000), as well as Elliot (2016) were of use in relation to climate change.

5.3 Summary of Data

It was found that land cultivation increased under the Roman rule, as it is clear from the increase of crops such as olives, an increase in olive presses, as well as the building of irrigation systems and the expansion of docks. An increase in urbanization was also noted. Evidence for this is based on the calculated size of urban centres by utilising archaeological data such as water supplies, as well as the number of cities and their increase and expansion as mentioned by classical authors such as Pliny (*Hist Nat* V.2-3) and Strabo (*Geo* XVII.3.15). Section 4.1 elaborates on this.

The use of Latin in Roman North Africa was also shown to have increased. Moreover, the Roman nature of various urban centres was highlighted. Epigraphic evidence also indicates a tendency towards Romanization, while the role of the Roman military in connection with this was deduced to have been significant. The evidence also pointed towards the adoption of Roman religious practices, especially the imperial cult. Moreover, it was demonstrated that there is evidence for the widespread adoption of the Roman culture by the urban elite, as it is clear from epigraphic sources. For more detail on this matter, see section 4.2.

I will not cover the data in respect of the relationship between Romanization, urbanization, and land cultivation under this section because the synchronization of research findings below partially addresses these data (cf. also section 4.3 for more detail in this respect).

With reference to data for the presence of groupthink among North Africans during the period in question, epigraphic and literary evidence show that various factors identified as aspects of groupthink were present. Thus, this data leads me to speculate that there is a high likelihood that groupthink occurred among the population of Roman North Africa (cf. section 4.4 for a detailed discussion on this topic).

Modern data on agricultural statistics were used in comparison with figures given by Pliny the Elder (*Hist Nat* XVIII.22) to illustrate possible effects of climate change. Moreover, Eifel maars, sulphate aerosols, tephrochronology, and dendrochronology all point towards a climate change having occurred during the period under discussion. The data which were provided,

appear to suggest that an increased land cultivation occurred as a result of climate change (cf. section 4.4 for more detail).

Mostly through the use of secondary sources, but with a limited amount of archaeological and primary sources, the reasons why pre-Roman cultures did not have similar effects on local North Africans, was explored. The available data appear to reflect that the hostile nature of these pre-Roman groups towards natives, as well as the limited nature of their colonization were the reasons for this.

5.4 Synchronization of Research Findings

This study attempted to demonstrate that urbanization and land cultivation had a two-way relationship with Romanization and thereby increased the mutual occurrence. I have shown how the political and social desirability of Romanization increased this occurrence. A political and social desirability, in this case, refers to the holding of governmental offices, grants of citizenship leading to increased individual and even communal rights, as well as increased economic abilities and rights. The study demonstrated that this led to an increase in urbanization and land cultivation that in turn also fuelled further Romanization.

Furthermore, I have shown that Romanization appears to have been quite extensive as suggested by available sources, despite some scholars arguing for the opposite. In section 4.1, I provided evidence which pointed towards extensive land cultivation and urbanization which were taking place during the period in question. In section 4.2, I provided evidence for and against the general spread of Romanization in North Africa among natives. It could be deduced from this evidence that, although this is not a simple matter, there appears to have been widespread Romanization during the period in question. Furthermore, in section 4.3, I provided arguments that are supported by both primary and secondary sources, for the relationship between Romanization, urbanization, and land cultivation. In Chapter 4, it was indicated that there appeared to exist a relationship between these factors, which led to them having a positive growth effect on each other and causing a self-replicating process to occur.

I have also briefly specified how natives' lives changed as a result of the Roman rule, what the nature of their relationship towards each other was, and what methods the Romans used to effectively colonize North Africa. These methods included the social/legal promotion of both individual North Africans and entire communities, the change from nomadic to static

agriculture, the introduction of colonists and Roman style amenities, as well as Roman religious and political structures. Thus, natives became more urbanized and had better access to amenities such as bath-houses and entertainment centres, as well as an increased food security because of a shift from nomadic to fixed forms of agriculture. Moreover, the Romans were not extremely cruel or strict rulers, allowing a large degree of personal freedom for native groups, mostly maintaining a purely military over-lordship, quite unlike the hostile relationship which natives had with the Greeks and Phoenicians. This patron-subject relationship clearly allowed for better control over the native population than the Punic and Greek methods had.

This study also pointed out that this fact, along with the nature of Punic and Greek settlements, compared to the Roman imperial rulership, impacted on the desirability of a cultural adoption by native North Africans. Thus, Romanization was desirable because it resulted in greater wealth and power for communities and individuals, while the adoption of Greek or Punic cultural practices were not advantageous to native groups.

I have also shown that groupthink could have led to an increase in Romanization and that further study in this direction is needed. It was shown that Romanization became desirable for most North Africans in relation to groupthink because they were exposed to various factors such as recent failure, personal stress, and pressure towards uniformity. This was described in more detail in section 4.4, where a definition of groupthink was given. The role of observant learning in connection with the Romanizing role that the urban elite had on the lower classes was also highlighted in Chapter 4.

The possible effect that climate change had on urbanization, land cultivation, and Romanization, has also been briefly addressed in this study, and it was found that it could have contributed to its occurrence. This was done in the section on climate change in section 4.4. Specific mention should again be made of an increase in arid conditions, which could have increased static farming practices, as is evident in Chapter 4. The correlation between increased farming and urbanization due to climate change mainly caused by volcanic eruptions during the 2nd century AD, was also touched upon in Chapter 4.

5.5 Recommendations

I suggest that future studies should focus on Latin inscriptions and the evidence that it could provide on Romanization. Moreover, an in-depth study concerning the role of groupthink may also be necessary, as well as the role of climate change towards Romanization, urbanization, and land cultivation, with specific reference to Roman North Africa.

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