SOCIO-ECONOMIC RELATIONS BETWEEN THE ANCIENT NEAR EAST AND EAST AFRICA DURING THE OLD TESTAMENT ERA

By

DR EVERT VAN DIJK

Submitted in fulfilment of the requirements for the degree of

MASTER OF ARTS

in the subject

BIBLICAL ARCHAEOLOGY

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: DR M LE ROUX

FEBRUARY 2006

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

For the guidance and supervision of this dissertation, I express my thanks to Dr Magdel le Roux for sharing her experience and esteemed knowledge with me.

A special word of appreciation goes to Delia who over the recent years has supported me with TLC. Even 'Down Under' in Australia she kept a continued interest in the progress of this study. She even kept the search for relevant literature going and was able to locate some valuable information for me in Melbourne, Australia and Auckland, New Zealand.

Friends such as Nicol Stassen and André de Meyer also provided great assistance in the search for relevant books and also provided moral support.

All the persons who provided logistical support will always be appreciated. In this regard a special word of thanks goes to Tanya Bergh who, under difficult circumstances, was always able to put on a smile while typing and correcting the various drafts and final copy.

This dissertation is dedicated to my parents who have both passed away, but while alive always inspired me to continue my studies.

SOLI DEO GLORIA

SUMMARY

This dissertation deals with a holistic and multidisciplinary approach to the socio-economic relations between the Ancient Near East and East Africa during the Old Testament period. In my opinion this multidisciplinary approach by using *inter alia* Biblical Archaeology, History and Economics has the potential to offer various comprehensive opportunities for the analysis and discussion of such socio-economic relationships. For example, the relationship between the United Monarchy of Israel and Phoenicia involves the geopolitical, economic and other situations. In the last chapter attempts are made to integrate all the relevant dimensions in a wellfounded conclusion.

Keywords

Phoenicia; Saba; Ma'rib; Carthage; Navigation; Monsoon; Nearchus; Dor; Timna; Ezion-Geber; Ancient Near East; East Africa; Maritime activities; Reed Boats; Mtwepe.

LIST OF ILLUSTRATIONS

CHAPTER ONE

INTRODUCTION

1.1 PROBLEM STATEMENT

Globalization is seen by many people as a modern phenomenon which leads to heated debates at international conferences and in the media. Thousands of years ago the key issue of international commercial cooperation was also regarded as controversial in the then known ancient world. Biblical evidence points to international trade between nations in what are now known as the continents of Asia, Europe and Africa.

Although frequent mention is made in the Old Testament of socio-economic relations between Palestine and Egypt, little is known about such relations between the Ancient Near East and the rest of Africa. However, such trade is, according to Biblical and many extrabiblical sources, to a large extent overshadowed by political historical events. The results thereof can lead to a distorted view of the relevant events (Le Roux 1995:1).

Especially during the nineteenth century of the present era, European historians took, according to Sturley (1969:105), a 'narrowly national or European-centred' view of history. It is only since the Second World War that historians have made a move for a return to the study of history on a world scale. According to Le Roux (1995:1) many historians also favour a multi-disciplinary approach to the Old Testament.

This multidisciplinary approach is also supported by the Annales School which is described by Krüger (2004:78) as follows:

> The Annales School is a unique historiographical movement that embodies a methodology that may possibly offer us a means through which to understand the events of the Late Bronze/Early Iron Age. Through their emphasis on a multidisciplinary approach, a 'total' approach towards

> history and a unique concept of time the Annales movement shares a partnership with archaeology that penetrates deeper that [sic] just a [sic] their chose field of research: the past. Archaeology, especially as it is practised in Syro-Palestine has, until very recently, relied primarily on the Bible to define its research matter. Although the Annales has been known as a school, it shies away from using a rigorous paradigm, and could preferably be appreciated as a movement or a paradigm rather than a school.

On the other hand, the twenty first century A.D. has become the age of specialisation which places the focus on a specific study field. This can lead to research being done in isolation away from other related sciences. However, many specialisations do overlap and as such they are complementary. Sturley (1969:106) makes in this regard the following important statement:

> There is much common ground, for example, between archaeologists, social and economic historians, and historical geographers; the specialist in local history can often throw light on a problem of national historical importance while he needs a good grasp of general history in order to understand his own local problems.

The afore-cited 'common ground' between archaeologists, historians and economists should play a vital role in unearthing, analysing and hence producing a wellfounded interpretation of the history of the Ancient Near East. As an economist, I recognise this role.

However, the debate between Biblical scholars on, for example, the source(s) of the huge gold resources of King Solomon still continues until this day. In this regard the economic activities during the Solomonic Age are central to the polemic discussions. Especially during the past two decades, archaeological debate focuses on the conventional dating (10th century BC) of the Solomonic era.

Although a large range of existing sources can be of assistance, I am of the opinion that much more research is needed in order to try to solve some of the controversial issues which include the following:

- Dating of the Solomonic era;

- The economic magnitude of the cooperation between Kings Solomon and Hiram (cf 1 Ki 9:26-28 and 1 Ki 10:23);
- Solomon and the Queen of Sheba with regard to trade and migration between East Africa and the Ancient Near East;
- The role of reed boats in the socio-economic context between the Ancient Near East and East Africa (cf Is 18:1-2);
- Socio-economic relationships between the Ancient Near East and south east Africa.

1.2 OBJECTIVES OF STUDY

This dissertation attempts to investigate and provide a kind of report as far as possible on the socio-economic relations between the Ancient Near East and East Africa during the Old Testament era with specific reference to the period 1000 to 600 B.C. This study is therefore descriptive and it is not the intention to give an extensive critical analysis of the relevant biblical texts or to solve historical problems surrounding, for example, the Queen of Sheba or the Age of Solomon.

This study is to be conducted within a multi-disciplinary context of archaeology, history and economics in order to provide perspective analyses over a broad spectrum of developments during the relevant period in the Ancient Near East.

It is the purpose of this study to collectively weigh the various dimensions of the relevant socio-economic relations and establish their possible impacts on historical developments during ancient times. In this regard the maritime history of the relevant roleplayers and countries will be given special attention in order to *inter alia* ascertain the levels of technical and navigational skills.

Possible hypotheses for this study are the following:

- A multi-disciplinary and holistic research process could provide a better i.e. comprehensive understanding of relevant key issues such as mining, manufacturing, commerce and trade in the Old Testament.
- The ancient seafarers such as the Sumerians and Phoenicians developed navigational abilities and possessed shipbuilding skills

which enabled them to travel long distances between the Ancient Near East and Africa.

1.3 RESEARCH METHODOLOGY

A research design consists of a scientific and planned arrangement of conditions for the collection of data and the analysis thereof in a way that aims to combine relevance to the research purpose with economy of procedure (Van der Straaten 2004:36). The choices made in the design of such research should at the end of the study determine whether the overall purpose of this study will be met or not. According to Jankowicz (1995:87), research involves two fundamental key issues, namely the ontology and the epistomology. The ontology refers to the way in which one notices things and which kind of things are worth noticing. The whole research design and its methods in this study will depend to a large extent on the available data. For this reason I have to decide which subject matter is relevant to this study.

On the other hand, epistemology is the personal theory of knowing, what counts as knowledge and what does not, what counts as evidence and proof and what does not. In addition there are two kinds of ontological and epistemological assumptions available. The first one is based on scepticism and the other on conviction (Jankowicz 1995:87).

Positivism searches for the truth and is based on scepticism. Personal evidence is checked by other people who seek such evidence also for themselves, drawing on empirical data as a way of avoiding the dangers of stereotyping, myth and superstition, or through a public debate, where the truth will tend to emerge. However, positivism does pose problems such as complexity and boundaries especially when problems do not fit within the neat boundaries of academic knowledge (Jankowicz 1995:90).

Constructivism on the other hand, works only with conviction and adopts ontology and epistemology based on individual belief and knowledge which

is acquired by consensus, but always open to revision (Jankowicz 1995:90).

In this study I will make use of the following research methods:

- Analysing secondary sources consisting of a range of relevant publications and websites; and
- Observations, interviews and research during personal visits to the Near East, East Africa and Europe.

However, special care will be taken of the pitfalls and weaknesses presented by archaeological sources: Hromnik (1981:11) refers to such weaknesses of modern archaeology as follows:

> One major weakness of modern archaeology is that it tends to plot cultural traditions, historical movements, and even languages in total disregard of historical evidence. It interprets most archaeological finds as almost indigenous to the people and areas where they were found.

Accordingly I will endeavour, as far as possible, to prevent such one-sided archaeological approach.

1.4 HISTORICAL CRITICAL MAXIM

During the past three decades there has been an ongoing heated debate between two camps on the factual and historical validity of especially the state of Israel under the united monarchy of King David and his son King Solomon as described in the Old Testament of the Bible. In the one camp there are those historians and archaeologists that believe in and actively support the notion of the existence of these united monarchies in such a real ancient Israel. On the other hand, there is a growing corps of socalled revisionists and post-modern theologians who regard large parts of the Old Testament as myths.

In particular it was William G. Dever who took up the cudgels to fight the revisionists vigorously. Dever (2001:x) makes this clear in the Foreword to his book '*What did the Biblical Writers Know & When Did They Know It?*' by stating:

> Why did I write this book? Because I had to, not only to counter the 'revisionists' abuse of archaeology, but to show how modern archaeology brilliantly illuminates a real "Israel" in the Iron Age, and also to help foster the dialogue between archaeology and biblical studies that I had always envisioned.

Although Kitchen (1997b:152) does not disprove the revisionists who reject 1 Kings 10 as containing myths, fables or legends, he takes a strong stand in not dismissing the Biblical narrative as such. In this regard Kitchen (1997b:152) makes the following statement:

> In short, lack [so far …] of explicit mentions of either the Queen of Sheba or of Solomon [or any link between the two] proves nothing so far. We have no data in either proof or disproof of the Levant-Arabia relations of 1 Kings 10; thus, we can neither affirm nor deny categorically these relations in terms of direct evidence.

However, Kitchen (1997b:153) points out that Ma'rib (the capital of ancient Saba where Queen Sheba according to some Biblical texts and scholars reigned) still has to be "deeply" excavated. Consequently it should be no surprise that Kitchen (1997b:153) closes off the relevant chapter by stating:

> But until we do find fresh information in these categories, we must be content with intelligent use of the wider background charted above. That background cannot deliver proof either way, but it does provide an intelligible framework for what is found in 1 Kgs 10.

Accordingly it is my intention in this study to analyse and discuss the relevant key issues and reach the study objectives within such an 'intelligible framework'.

In order to put the relevant historical events into the perspective and context of this study, the following table of such events is provided. Handy (1997b:502) writes in this regard:

> The many groups who see their future possibilities in as many different ways can [and will] envision the past to suit their vision and as their vision changes so will their teaching of the past. As formulaic materials, historical reconstruction will adapt to the changing paradigms of the models used. There is no danger in the foreseeable future of formulas coalescing into one agreed upon paradigm or even of any of the formulas remaining at the

> same structure they are at this time; thus, likewise, the historical material will need to be constantly updated as well as compared with yet other and newer such formulas. What this means for Solomon is that the reconstruction of his reign is still an open investigation. There is plenty of room for new, creative and insightful scholarship. Surely enough to keep academics and other busy for another millennium.

In the context of this study, I do accept the biblical evidence as historical facts relating to the existence of the Age of Solomon. I also wish to follow the above-mentioned approach and a conviction by Dever (cf 2001:x) to 'foster the dialogue between archaeology and biblical studies' that I have always believed in.

In some instances, however, a possible historical critical methodology will be applied. This is done to provide a possible balance in the relevant discussions.

1.5 SOURCES

In the first instance, I intend to make primarily use of the Bible (in various translations) and relevant Bible Commentaries. The Scofield Reference Bible translation (1917) will be mainly used for this study. Secondly books on archaeology and other extrabiblical sources, artefacts and other archaeological evidence will be reviewed and interpreted where possible. In addition a number of books on the maritime history of seafarers between the Ancient Near East and East Africa will be researched.

1.6 STRUCTURE OF THE DISSERTATION

After discussing the Problem statement, Objectives and Research Methodology above, the remainder of this dissertation consists of the following chapters:

In Chapter Two, the ancient trade in the Old Testament, especially 1 000 to 600 B.C. is discussed within a possible new perspective. Specific attention

will be given to various geographical centres and sources of important raw materials with which were traded during the period under review.

Chapter Three will continue the discussion in Chapter Two with the emphasis on the seafaring i.e. maritime trade of the Phoenicians in the context of the Ancient Near East.

Chapter Four provides a discussion of voyages by ancient mariners between the Ancient Near East and East Africa. In this chapter specific features of ship design and navigational skills of the ancient seafarers will be discussed. In addition the impact of the monsoon winds on these voyages will also be addressed.

In Chapter Five specific attention is directed to another important facet of the central theme of this dissertation namely the socio-economic relations between the Ancient Near East and East Africa. In this regard migration from the Ancient Near East to East Africa will be the key issue to be discussed. Specific attention will also be given to possible linkages between the Ancient Near East and ancient economic activities in Southern Africa.

Chapter Six encompasses the Conclusion to this study by revisiting the discussions in the previous chapters. A holistic and multidisciplinary approach is used. This is also done in the light of the above-mentioned hypotheses in order to reach the objectives of this dissertation.

CHAPTER TWO

ANCIENT TRADE DURING THE OLD TESTAMENT PERIOD

2.1 INTRODUCTION

The intention of this chapter is to put the ancient trade in the Old Testament from especially 1000 to 600 B.C. in a possible new perspective. Attention will firstly be given to the impact of geopolitical and other international factors during the so-called Age of Solomon (see Chapter One).

This chapter will also discuss the various geographical centres and sources of important raw materials with which were traded during the period under discussion. For example, the possible sources of gold and other minerals will be discussed. In this regard the possible location and economic activities of Ophir and Tharshish will be analysed and evaluated. In addition the economic role of the exports of minerals and manufactured goods by the relevant trading partners will be discussed.

2.2 GEOPOLITICAL FACTORS

In the analyses and evaluation of historical developments it is necessary to take geopolitical factors into consideration. This is done to highlight those factors which impacted specifically on the development of socio-economic relations between the relevant political powers and entities within the Ancient Near East during the period under review.

During the Age of Solomon (approximately 1015 to 984 BC according to the Scofield Reference Bible or rather 962 to 922 BC; Perego 1999:44) the Ancient Near East went from an era of instability to relative stability. Turmoil had already started in Egypt with the death of Pharaoh Ramses XI as Mokthar (1990:160) describes as follows:

> Heri-Hor was appointed viceroy of Nubia and vizier of Thebes. Thus he became the actual master of Upper Egypt and Nubia. Following the death of Ramses XI, he became king (-1085) and with him started a new line of rulers in Egypt. Then chaos reigned in Egypt and with it a dark age commenced in Nubia, to continue until the eight century before the Christian era, when Kush suddenly emerged as a great power.

Another important geopolitical factor was the availability of a waterway connecting the Mediterranean Sea and Red Sea. It is known that such a canal existed via the Nile during certain periods of the Old Testament era. However, political upheavals together with silting problems and drought caused stoppages for long periods during ancient times. Pesce (1976:7) refers to the existence of such a canal at the end of the Old Testament era, during the Roman empire. He quotes the account of Strabo, the Roman explorer in describing the expedition of the Roman general Gallus in Arabia Felix: 'Gallus built not less than eighty boats, biremes and trireimes and light boats at Cleopartris (Suez) which is near the old canal which extends from the Nile.'

Sealevels could also have had an impact on the navigation of seafarers between the Mediterranean and Red Seas during the Old Testament era. During my own visits in the 1960s and 1970s to ancient Mediterranean ports such as Ostia (near Rome) in Italy and Piraeus (near Athens) in Greece and Ephesus in Turkey there was definitely evidence that the original ancient ports are now a few kilometres inland. Heyerdahl (1980:12) also makes mention of this phenomenon when writing about the water levels at ancient Ur:

> And Abraham had probably never venerated that pleasant riverside spot, since the ground level has risen an estimated six metres in the last few millennia and must have altered the original water course.

Stern (2000:97) also refers to the impact of sealevels on the navigation of ancient mariners and the operation of harbours such as

Dor. In this regard Stern (2000:97) quotes as follows from research at Dor by Avner Raban (source not provided):

> In the late 13th century B.C.E., when the maritime installations were first constructed, the topography was somewhat different from what it is today. The sea level was more than 50cm lower, and what is at present a bay open to the sea south-west of the tell was the innermost part of a long, narrow lagoon that opened to the sea about 1.5km further south. The chain of rocky islets that today give partial protection to the lagoon from the open sea was more continuous (that is, the islets were less eroded); less sand lay on the lee side and no tombolo divided the lagoon from the cove. This paleotopography allowed ships to moor anywhere in the lagoon (Late Bronze Age anchors and jars were found on its bottom); the establishment of a wharf at the inner northern end, within the built site of Dor, enabled the movement of goods and the conduct of various commercial and military activities in the post.
>
> The sea-level rose constantly if gradually from the late 13th century to the early 10th century B.C.E. and the people of Dor had to adapt the landings and the well at least twice, perhaps three times, to the changing of conditions. The rising sea-level would have intensified the incursion of sand into the lagoon. The solution was to cut a channel through the rocky shelf then enclosing the western side of the inlet. This allowed the circulation of water, and though the tides of the rising sea surged over the eroded shelf – as confirmed by the concentrations of wave-carried stones and seashells – the additional turbulence slowed the silting process and helped keep the haven navigable.

The various aspects of navigation will be discussed in more detail in Chapter Four.

2.2.1 Solomon and Egyptian Pharaoh

The marriage of Solomon to Pharaoh's daughter (1 Ki 3:1) is one event that illustrates the importance of geopolitical factors. This Pharaoh as well as Solomon required an ally in consolidating their areas of political influence. Early in Solomon's reign both Aram and Edom revolted against Israel's domination. According to 1 Kings 9:16 (Jerusalem Bible 1968):

> Pharaoh king of Egypt went up and captured Gezer, he burnt it down and massacred the Canaanites living there; he then gave the town as a dowry to his daughter, Solomon's wife, and Solomon rebuilt Gezer ….

Meanwhile Solomon was also strengthening diplomatic relations with king Hiram of Tyre representing a continuation of those relations already having been established by king David. Solomon managed to get material assistance from Hiram in the building of Solomon's palace: and Yahweh's temple. However, these building activities fall outside the scope of this study.

On the Mediterranean coast, Israel under king David, had gained important access to international trade by capturing the town and harbour of Dor from the Philistines (Stern 2000:22). However, Israel not being a seafaring nation, there was an economic need to find partners to develop the relevant economic opportunities. The Phoenicians, having the experience, skills and seaworthy ships formed the ideal partners for the envisaged cooperation for expanding the international trade opportunities under the United Monarchy of Israel.

King David and his successor king Solomon both encouraged this cooperation in the new conquered territory on the Mediterranean coast. Prosperity was promoted as indicated by the excavations at Dor by Stern and his team (2000:106). It was the deliberate policy of David and his son Solomon to promote the development of ports and maritime trade, both with and without the cooperation of the Phoenicians, because it was the only part of the Mediterranean coast which Israel controlled (cf Stern 2000:106).

The emphasis in this study is to be placed on the cooperation between Hiram and Solomon in expanding maritime trade, not only in the Red Sea, but even farther afield (see also Chapter Three). However, this expansion caused an upset in the comparative advantages of the various trading powers in the Ancient Near East.

According to Samuelson and Nordhaus (1989:901) the principle of comparative advantage means that:

> … each country will specialize in the production and export of those goods that it can produce at relatively low cost (in which it is relatively more efficient than other countries); conversely, each country will import those goods which it produces at relatively high cost (in which it is relatively less efficient than other countries).

2.2.2 Saba

One of the relevant countries concerned about the shift of economic power in the Ancient Near East was Saba, in the southern part of Arabia. Saba had previously wielded considerable power in the supply of strategic materials. Saba also had exercised political and economic power on both sides of the Red Sea.

Extrabiblical sources have according to Na'aman (1997:72), confirmed Saba's important transport links during the 9th and 8th centuries B.C. He makes *inter alia* reference to Assyrian royal inscriptions of the 9th century B.C. which demonstrate that since the early 9th century B.C., Hindanu's rebels presented as a tribute to Assyria a range of products imported from South Arabia. These products included myrrh, antimony and musukkanna wood. Na'aman (1997:73) also refers to Liverani (1992:111-115) who characterised the biblical events of Solomon and the Queen of Sheba as a 'true and proper foundation legend for the south-Arabic trade in the north'. Na'aman (1997:73) further quotes Liverani's conclusion as follows: 'A starting phase of the South-Arabian trade in the second half of the 10th century would perfectly agree, both with the Old Testament traditions and with the Assyrian royal inscriptions.'

Consequently the concerted maritime expeditions by Hiram and Solomon posed a threat to Sheba's domination of that particular trade. Camel caravans composed the ships of the Arabian deserts. No wonder then, that the Queen of Sheba also had economic motives for her visit to Jerusalem (1 Ki 10:1-10).

This Biblical narrative creates the first impression as if the Queen wanted to verify herself of Solomon's fame and wisdom. However, as Kitchen (1997b:138) justifiably points out that is similar to what contemporary political leaders are still doing: 'Rulers of antiquity were a hard-nosed lot, and did not undertake long journeys simply to exchange a few flattering pleasantries.' It was a long journey to Jerusalem of approximately 1400 miles of 'rugged desert' (Kitchen 1997b:142). The Queen's visit most probably also had an economic motive. Kitchen (1997b:138) elaborates on this motive as follows: '… the Sabaeans saw this new sea-venture between the Levant and Arabia as a potential threat to their overland camel-borne trade north to that same quarter, and sought to sort matters out at first hand.'

To heighten the Queen's economic dilemma, it was during her visit to Jerusalem that the navy of Hiram (1 Ki 10:11) also brought in from Ophir plenty of almug trees and precious stones.

In support of the above analyses and Biblical report, Kitchen (1997b:139) comes to the following important conclusions:

> Seen in this light, regardless of whether it be viewed as fact, fiction, or whatever, this narrative's format makes good sense. Levantine economic entry into western Arabia [close to a SW Arabian trade route] sparks off a SW Arabian visit to the Levant. The solidity of the sea-trade at that time could not be altered, so a *modus vivendi* [heavy stuff by sea; light stuff overland] could be implied as having been reached between SW Arabia and the Levantine partners [who proceeded to trade still further away].

Meanwhile, however, other international trade was also taking place within the Ancient Near Eastern region.

2.3 LAND OF PUNT

Punt and 'Amau are important East African regions for the purpose of this study. However, Punt is regarded as more famous. Egypt's pharaohs are known for having sent their seafarers, over a long period (since approximately 4000 BC) to the land of Punt (De Kock 1957:10).

According to the Scofield Reference Bible (Plate 1, 1917) Punt (also called Phut) was probably located at 10˚ latitude on the western side of the Red Sea across from Saba.

The Britannica Micropaedia Volume VIII (1974:304) is more specific than the Scofield Reference Bible about the relations between ancient Egypt and Punt by describing this relationship as follows:

> Punt, also known as GOD's LAND, the Ancient Egyptian name for the southern coastal region of the Red Sea (Ethiopia) probably extending into what is now Somalia. The legendary and fabulous character of the region is reflected in the works of the 5th century BC Greek historian Herodotus, who recorded the Egyptian legend of how the pharaoh Sesostris carried his conquests to the borders of the Erythraen Sea.
>
> An expedition during the reign of the Egyptian king Pepi II Neferkare in 2300 BC to the land of Punt is historically corroborated, as were further voyages undertaken during the 11th dynasty [2133-1991 BC], chiefly under Mentuhotep IV. Queen Hatshepsut [ruled c. 1503-1482 BC] made a famous voyage to Punt and had the details of the journey recorded on the walls of her temple at Dayr al-Bahari. So numberous were the voyages subsequently, undertaken by the Ancient Egyptians to the Divine Land that such expeditions became routine. The so-called Ethiopian dynasty of Egypt – the 25th – which came from the south to rule Egypt in 751-656 BC, has sometimes been used in an attempt to prove an even closer connection between Ancient Egypt and Ethiopia.

On the other hand, Kitchen (1997a:114) is also more specific. He writes that the Egyptian seafarers sailed down the African coast to the latitude of Port Sudan and Suakin and then went inland to reach the aromatics growing in an area near the modern Sudan/Ethiopia border southwest towards Kassala and Roseires. This location is close to 15˚ latitude.

As mentioned above, (during the 10th century BC) Egypt had become a divided country (cf Mokthar 1990:160). This could have affected the Egyptian voyages to Punt and also the trade in aromatics from Punt.

It is possible that during the 10th century B.C., a tug of war over Punt's aromatic industry developed between the economic powers of

Phoenicia and Israel on the one hand and with Saba on the other hand. Such conflict would have been similar as conflicts which took place ca 1600 years later between the Portuguese, English, Dutch and French for control over the Indian Ocean sea routes (cf De Kock 1957:248).

2.4 SOURCES OF GOLD

2.4.1 The fleets of Phoenicia and Tharshish

In the Old Testament, various sources of gold are mentioned. Within the framework of this study cognisance is taken of a number of texts. Firstly the book of 1 Kings mentions Tyre, Saba and Ophir in terms of international trade and also gifts (1 Ki 9:26-28; 10:10-12; 14-15; 22-29). However, in the relevant texts no differentiation is made whether those places were the real local source of the minerals and goods or if Tyre, Saba and Ophir had imported them from the sources of origin.

It is known that Israel and Tyre (an island during the Age of Solomon) did not possess gold mines. It was Saba (in the present day Yemen) that had gold mines which were exploited intermittently during ancient times (cf Millard 1997:41). Some of those ancient workings near Taif are dated pre-Islamic (cf Millard 1997:41).

Despite much research and speculation, the real location of Ophir remains a mystery. If it was the destination of a three year return voyage (1 Ki 10:22) Ophir must have been a far distant place (Le Roux 2003b:29). Both western and eastern Red sea coasts have been suggested. According to a Jerusalem Bible's note (1968:375) Ophir was probably on the western coast of Arabia. Wherever the true Ophir lay, its gold according to Millard (1997:4) was recognised in Israel during the 8th century B.C., because a receipt scratched on a potsherd found at Tel Quaile (north of Tel Aviv) reads 'Gold of Ophir for Beth-Horon: 30 shekels.' However, I agree with Millard that it is

probable that 'Ophir' could also refer to the quality or purity of the relevant gold.

For the purpose of this study, it is necessary to differentiate clearly between two Phoenician merchant fleets that were operating during the 10th century B.C. Kitchen (1997b:137) emphasizes this distinction between the Ophir trade (1 Ki 10:11-12) and the non-Ophir trade (1 Ki 10:22).

Rawlinson (2005:102) also makes a clear distinction between the relevant two fleets as follows:

> Two trading fleets were formed, to which each of the two nations contributed both ships and men [1 Kings ix.27; x.22] – one, starting from Ezion-geber, traded with Ophir on the south-east coast of Arabia, and perhaps with the more distant East, with India, Malabar and Ceylon; the other, starting probably from Tyre, navigated the Mediterranean, entered the ocean, and traded with Tartessus and Gades, perhaps with Western Africa and Cornwall.

The Ophir trade will be discussed in more detail below (cf 2.4.2).

The non-Ophir trade was therefore executed by the Tharshish fleet as described as follows in 1 Kings 10:22 (Scofield Reference Bible 1917): 'For the king (Solomon) had at sea a navy of Tharshish with the navy of Hiram: once in three years came the navy of Tharshish, bringing gold and silver, ivory, and apes and peacocks.'

The location of Tharshish is also given in the Scofield Reference Bible (1917: Plate 1) as being on the south coast of present day Spain. Tharshish is also mentioned in Genesis 10:4: 'And the sons of Tavan: Elishah, and Tarshish [sic], Kittim, and Dodanim.' Hammond (1964: Map B4): also shows the nation of Tarshish [sic] as being domiciled in the southern part of present day Spain.

In 2 Chronicles 20:35 mention is again made of Tharshish with regard to king Jehoshaphat who joined himself with Ahaziah the king of Israel

'to make ships to go to Tharshish: and made the ships in Ezion-Geber.' This is followed by the prophesy of Eliezer against Jehoshapat (2 Chr 20:37): '… Because thou hast joined thyself with Ahaziah, the LORD hath broken thy works. And the ships were broken, that they were not able to go to Tarshish [sic]'. (cf Scofield Reference Bible, 1917). Perego (1999:39) also refers to the role of Tharshish in the trade routes of Solomon. The relevant Map 22 (Figure 1) is indicating the searoute 'From Tarshish [sic] Silver, iron, tin, lead and ships.'

The key issues of ship design, navigation, sea currents and winds will be discussed below (see Chapter Four). Various important sea and trade routes will again receive attention.

2.4.2 East Africa

After making the distinction above between the two different fleets it is now time to return to the location of Ophir. In this regard it is necessary to note that no distance is provided in the relevant Biblical narrative (1 Ki 10:11) about the distance of Ezion-Geber to Ophir. Kitchen (1997b:144) assumes that Ophir was probably closer to the Gulf of Aquaba than was the '3-year cycle' destination. Along with most modern commentators such as Ryckmans, Von Wissman and Briquel-Chatonnet[1)] (cf Kitchen 1997b:144), it is the safest according to Kitchen (1997b:144) not to search for Ophir beyond the Red Sea and its southern Arabian limit at Bab-el-Mandeb.

[1)] For previous theories about the location of Ophir, cf. (e.g.) the writers and views cited by G. Ryckmans, 'Ophir', *Supplément an Dictionnaire de la Bible* (Paris: Lotouzey, 1960) 6.744-51; by H. von Wissman, 'Ophir', *Pauly's Realencycopädie der classischen Altertumswissenschaft, neue Bearbeitung, Supplementband XII,* (ed. K. Ziegler; Stuttgart: Alfred Druckenmůller, 1970) col. 969, and by F. Briquel-Chatonnet, *Les relations entre les cites de la côte phénicienne et les royaumes d'Israel et de Juda* (Orientalia Lovaniensia Analecta 46; Louvain: Peeters, 1992) 277-83.

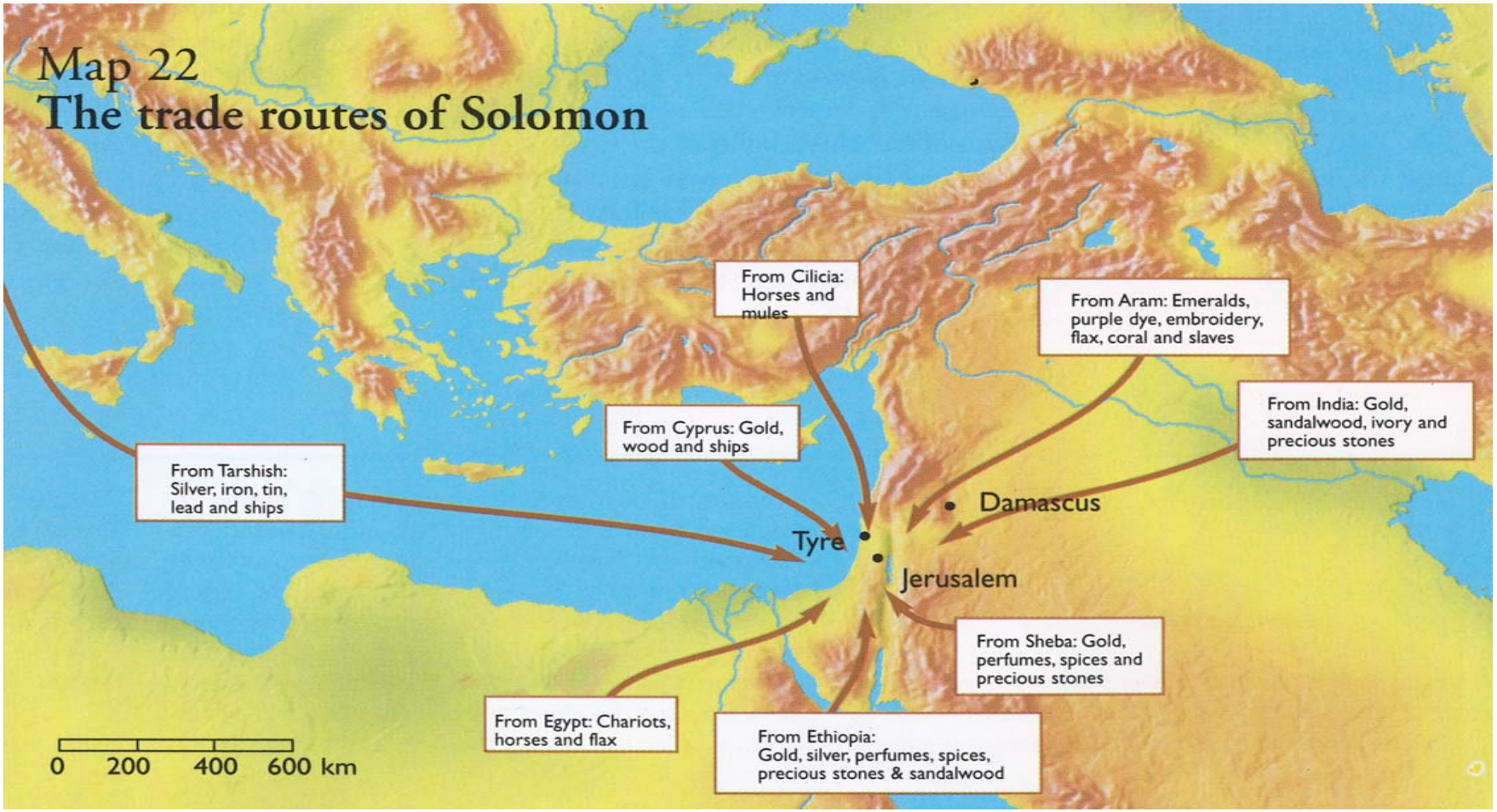

Figure 1.

The trade routes of Solomon[2)]

[2)] Perego, G. 1999. Interdisciplinary Atlas Of the Bible. New York: Alba.

If this would be true, the geographical options for the location of Ophir would be limited to Sudan, Eritrea or Ethiopia in East Africa or Western Arabia. A complicating factor regarding this issue is that gold has been exploited in both those regions (cf Kitchen 1997b:144).

In East Africa (behind the mountains that extend behind the Red Sea Coastland north from Port Sudan) is an area (stretching towards the Nile at its bend below the fifth cataract) that contains gold. In antiquity, this area was according to Kitchen (1997b:144) the land of 'Amau that produced gold of 'Amau. This location of 'Amau could, according to Kitchen (1997b:144), explain how the Egyptians obtained such gold via:

1) trade into the southern part of their Nubian empire (fourth cataract northwards);
2) Punt (immediately south of 'Amau).

Kitchen (1997b:144) therefore comes to the conclusion that if Ophir was situated in the relevant area of East Africa, it could have been 'an 11th-10th century B.C. successor to Punt and 'Amau, and therefore a source of gold for possible Tyrian-Hebrew expeditions.'

The Britannica Micropaedia Volume VII (1974:549-550) also refers to the debate about the location of Ophir as follows:

> Many areas of the Arabian Peninsula have been proposed as the site of Ophir; the principal alternative locations overseas are East Africa and India.
>
> That many Egyptian pharaohs reported sending naval expeditions to Punt (Somaliland) for monkeys, ivory, frankincense, and slaves lends credence to an East African site. There is some similarity between the Solomonic expeditions and those of the Egyptians, and the equation of Somaliland with Ophir is plausible. The other East African possibility is Zimbabwe in Rhodesia, the site of the famous stone-built ruins about 200 miles inland from Sofala, where there are gold mines. The ruins at Zimbabwe, however, do not appear to be earlier than the 9th century AD [sic].

From the above discussion regarding the alternative locations of Ophir, it seems that this debate will continue for some time to come. Regarding the 'stone built ruins' of Zimbabwe, I will discuss this issue further below (see Chapter Five).

2.4.3 Almug Trees

Ophir was besides gold also the source of almug trees (1 Ki 10:11), but as is the case with gold, the source of such trees could also have been Western Arabia. In this regard Kitchen (1997b:144) mentions Von Wissman who argued that this type of wood was juniper, but Kitchen (1997b:144) says that it is more likely tree aloe which both occurred in eastern Africa and western Arabia.

However, Briquet-Chatonnet and others (cf Kitchen 1997:144) insisted, according to Kitchen (1997b:144-145), that almug was also available from Lebanon (citing 2 Chr 2:8, and other external sources from Mesopotamia). Kitchen (1997b:145) justifies that possibly large quantities of almug trees could have been obtained cheaper from open Arabian hillsides than from 'money-jealous' Levantine local rulers.

In the light of the above, both East Africa and Western Arabia are equally possible locations for Ophir. However, one should also take into consideration the role of geopolitical factors (cf 2.2) in determining the exact location. Should Ophir have been situated in western Arabia, visits by the eastern Tyrian-Solomon fleets could have posed a threat to the Sabean monopoly over the incense trade routes. This would not be the case if Ophir was situated in East Africa 300 miles west from Arabia's gold region (cf Kitchen 1997b:145).

According to Kitchen (1997b:145), the exploitation of gold mining in Western Arabia in mediaeval and 'much earlier' periods has been proven. The relevant mining area covers a zone of 600 km/370 km in

length from inland south of Medina (Mahd adhj-Dhahab) to around Wadi Baysh and North Hawlan (part of 'Havilah'). However, the large region of 600km/370km still requires more specific identification.

2.5 OTHER DESTINATIONS

Kitchen (1997b:123) mentions the possibility of other African destinations for the fleets of Hiram and Solomon beyond Ophir from which came gold, silver, ivory, apes and baboons. In this regard Kitchen (1997:113) makes the following statement: 'Except for the silver, all of these could well have come from East Africa; the silver may bespeak a more remote final port of call. Further in the present state of knowledge, we cannot profitably go.'

2.5.1 Tharshish

Although the issue of Tharshish fleets was discussed, I wish to discuss this important issue in more detail. There is some confusion about the meaning of 'navy of Tharshish' in 1 Kings 10:22. According to Matthews (1974:172):

> Tharshish perhaps meant a type of ship, long broad of beam, a heavy cargo carrier. It may also have meant a place. Tharshish, most classical scholars believe, lay 2,500 miles away in south-western Spain-Tarsessos, rich in silver and lead, iron and tin, a land beyond the Pillars of Melqart, or Heracles as the Greeks were to call him, at the other end of the Phoenicians' home sea.

However, in Ezekiël 27:12 (Scofield Reference Bible 1917) the prophet describes Tharshish as a geographical place:
'Tharshish was thy merchant by reason of the multitude of all kind of riches; with silver, iron, tin and lead, they traded in thy fairs.' Again in Ezekiël 27:25 (Scofield Reference 1917 Bible) it is confirmed that Tharshish is a region:
'The ships of Tarshish did sing of thee in thy market: and thou wast replenished, and made very glorious in the midst of the seas.'

The Jerusalem Bible 1968 translation of the last mentioned verse reads as follows:
'The ships of Tarshish crossed the seas for your trade. Then you were rich and glorious by the seas.'

2.5.1.1 Duration of voyage

As mentioned above, the non-Ophir trade was executed by the Tharshish fleet which took a 3 year cycle to complete its maritime journey (1 Ki 10:22). Kitchen (1997b:146) acknowledges the twin fleets. However, Kitchen (1997b:146) bypasses the big question of why Tharshish (in the southern part of the present day Spain) would be specifically mentioned in the relevant Biblical narrative.

Instead Kitchen (1997b:146) elaborates on the 3 year cycle by referring to the impact of changing monsoon winds (see Chapter Four) on the long duration of such journeys. According to Kitchen (1997b:146) the '3 years' should not be treated as merely a symbolic number as Von Wissman (cf Kitchen 1997b:146) does. Instead Kitchen (1997b:146) considers the '3 years' more seriously as 'minimally part of one civil year, all of a second and part of a third'. In this regard, he refers to Egyptian fleets sailing down the west side of the Red Sea to reach Punt (landing along the Port Sudan/Suakin coast) 'using the summer winds that blew from NW to SE down that sea, and parallel currents.' This issue of 'summer' or rather monsoon winds will be discussed in more detail below (see Chapter Four).

According to Kitchen (1997b:146) the Tyrian-Hebrew expedition could have done the same as the Egyptian fleets, but to Ophir or to the south end of the Red Sea. Since the Egyptians made their Punt journeys in the 15th century B.C., the improved ship designs (see Chapter Four) would have enabled the Phoenicians to sail faster (with less stops) in the 10th century B.C. The Tyrian-Hebrew fleet could according to Kitchen (1997b:146), have reached Bab el-Mandeb in

eight to ten weeks. From there, their expeditions could have taken them round and southward, along the East African coast. In this regard Kitchen (1997b:146) even suggests that such a fleet would have passed present day Somalia 'but in the teeth of opposing winds of the SW monsoon.' He (1997b:146) posits that the ships could have endeavoured on eastward, 'either along the south coast of Arabia, and on by the Iranian coast to the west coast of India, if not directly from Aden or beyond it on the monsoon wind to western India.'

2.5.2 India

In order to strengthen his argument (or is it speculation?) Kitchen (1997b:146) points out that India had silver, ivory and exotic animals. On the other hand, Kitchen (1997b:146-147) mentions that the relevant fleets could also have picked up ivory on the return journey along the African side of the Red Sea, along with apes and baboons. The scene is then set by Kitchen (1997b:147) to calculate the duration of the total journey:

> Hugging the coasts to such a "further African" or Indian destination [at up to 2,400 miles] might conceivably have taken 80 days at 30 miles a day, for example, or almost three months, to add to 1,400 miles from Ezion-Geber to Aden [two months or so, above].

In addition Kitchen (1997b:146) allows for delays and sometimes 'longer stops'. A coast hugging run might have taken from July to November or even December, to arrive at ports on the West Coast of India or present day Pakistan. The return journey would have taken the same route but, according to Kitchen (1997b:147), the prevailing 'north-east winter monsoon winds would propel returning vessels along the south Arabian coast and related south-east winds take such ships north up the Red Sea to 20˚ latitude.' Oars rather than sails (see Chapter Four) would assist to navigate the ships (against the prevailing north winds the last 700 miles back to Ezion-Geber). Consequently the return trip could last, according to Kitchen (1997b:147) between five and six months to reach the home port by

May or June. After the safe arrival it could take up to a year to refit the ships for the next trip. In order to arrive at the '3 year' period, Kitchen (1997b:147) proffers the following two alternative interpretations:

(1) the fleet took (part of) 3 years for the round trip;
(2) intervals for the turn-around and refit at Ezion-Geber could have spread outbound and inbound trip over such intervals.

However, Kitchen (1997b:147) withholds himself from further speculation: 'Either way, we sail increasingly into the realms of hypothesis at present, so we must now return to *terra firma*.'

The question of the mystery round the '3 year' journey of the Tharshish fleet (1 Kings 10:22) is therefore still to be solved.

2.6 EXPORTS FROM ISRAEL

Under king Solomon his country was importing high value merchandise and minerals as well as skilled labour such as artisans for huge projects such as palaces and Yahweh's temple. This resulted in Israel not only having to face a large trade deficit on its current trade account, but also a serious deficit in its balance of payments. In order to overcome this deficit with Tyre, Solomon had to cede twenty towns to Tyre (1 Ki 9:12) which did 'not please' King Hiram.

However, Solomon had an Ace up his sleeves and that card represented the iron and copper reserves. The king would have remembered the words of Moses in Deuteronomy 8:9 where Israel was promised by Yahweh: 'A land wherein thou shalt eat bread without scarceness, thou shall not lack anything in it; a land whose stones are iron, and out of whose hills thou mayest dig brass' (cf Scofield Reference Bible, 1917).

2.6.1 Brass and Bronze

However, it is impossible to mine brass on its own as a mineral. For the production of brass, it is necessary to combine copper with zinc. Even before the Solomonic Age this process was known in the Ancient Near East. During the Late Bronze Age (1550 to 1200 BC) large quantities of copper and zinc were combined and smelted to produce brass. A ship (dating ± 1300 BC) salvaged off Uluburun near the Turkish coast carried large quantities of copper ingots (10 tons) and one ton of zinc. The ship probably departed from Ugarit and was possibly on its way to Macedonia (Figure 2). I saw these commodities myself during a visit to the relevant exhibition at the Deutsche Bergbau Museum in Bochum on 27 December 2005. It is interesting to note that the profile of the copper ingots is such that they are easy to carry by two persons. The ingots are approximately 70cm in length and 40cm in diameter.

According to Yalçin, et al (2005:13) there existed a number of copper sources in the Ancient Near East. These sources included, for example, those in modern Jordania, Oman, Yemen and Turkey as well as those in Israel. On the other hand, the sources of zinc are also important. In this regard Yalçin *et al* (2005:64) mention present day Iran and/or Afghanistan as possible ancient sources of zinc.

However, for the purpose of this study it is necessary to clearly distinguish between brass and bronze as some sources (including different Bible translations) interchange and confuse these two different alloys. In this study the following description of brass in the Britannica Micropaedia Volume II (1974:238) is used:

> ***brass***, alloy of copper and zinc, of historical and enduring importance because of its hardness and workability. The earliest brass, dating to Neolithic times, was probably made by accidental mixing of zinc ores with copper ores. In ancient documents, such as the Bible, the term brass is often used to denote bronze, the alloy of copper with tin.

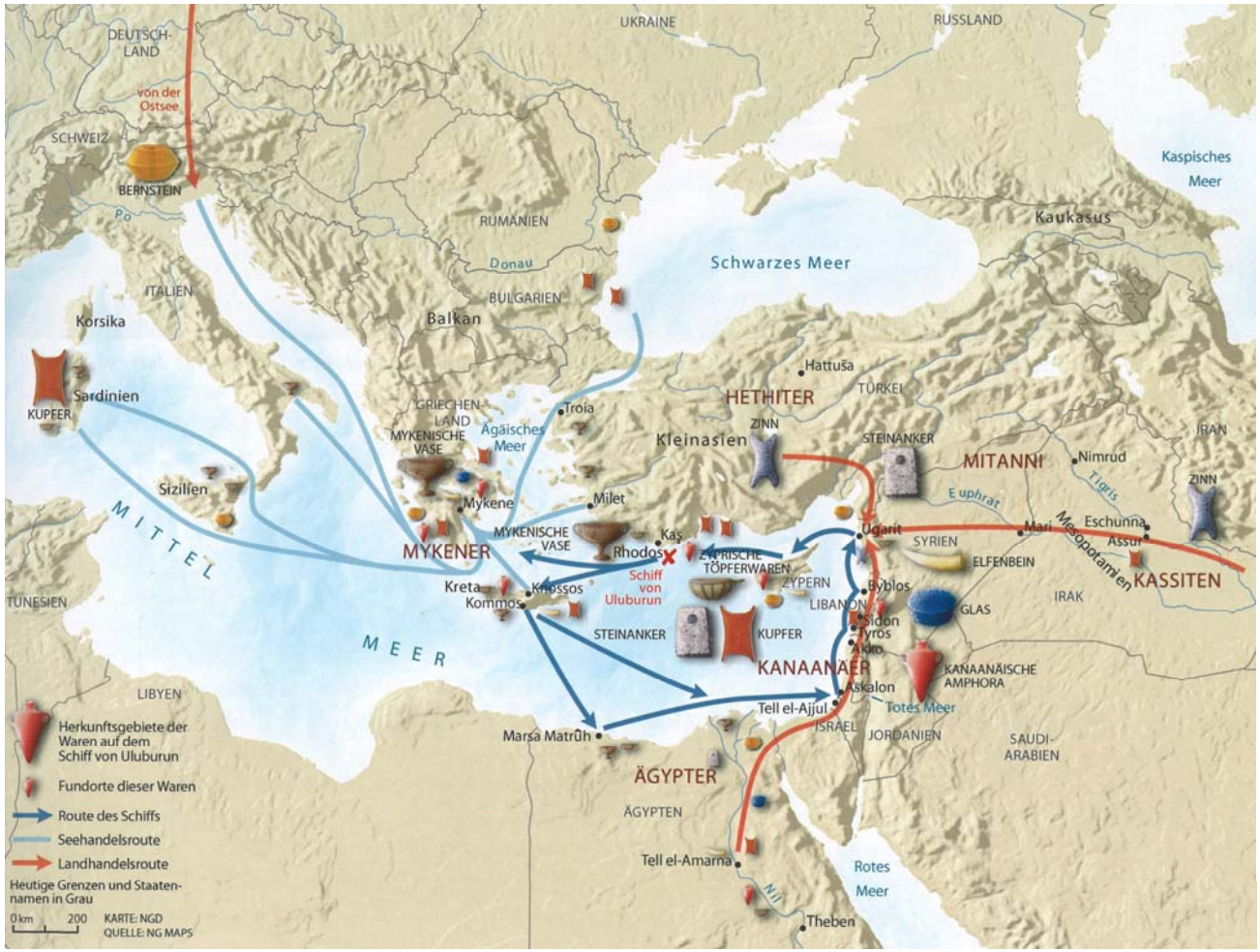

Figure 2.

Possible Trade Route of the Uluburun[3)]

[3)] Yalçin, Ü, Pulak, C & Slotta, R 2005. Das Schiff von Uluburun. Bochum: Deutsche Bergbau Museum.

With regard to bronze, the Britannica Micropaedia Volume II (1974:297) provides the following descriptions:

> ***bronze***, alloy of copper and tin of exceptional importance and historical interest. It was made as early as 3000 BC [sic], though its appearance in artefacts is rare until much later. Homer in the Iliad tells of the Greek god of fire Hephaestus, throwing copper, tin, silver and gold in his furnace to make the shield of Achilles. Proportions of copper and tin varied widely [from 67 percent to 95 percent copper in surviving artefacts] but by the Middle Ages certain proportions were known to give certain effects.

From the above two quotes from the Britannica Micropaedia it is clear that the mining of and manufacturing as well as trade in copper, zinc and tin was very important for the economies of the relevant countries. Brass and Bronze as alloys as well as in manufactured products also played a vital role in international trade during the Old Testament period.

2.6.2 Copper Mining

Consequently Solomon's copper mines at Timna in the Negev desert offered respite from his pressing creditors. The great copper and smelting site called Khirbet Nahas (the Copper Ruin) provided not only metals for the building of palaces and temples, but most probably provided the metals for the much needed exports using the Phoenician fleets. The Britannica Micropaedia Volume I (1974:1017) describes the Timna coppermines as follows:

> ***Timna***, copper-mining site, in the southern Negev, Israel north of Elat. The presence of copper in Palestine is mentioned in the Bible, and archaeologists have identified remnants of ancient smelting operations at Timna, complete with crude furnaces and slag heaps, as being of the Solomonic period. The ancient mines, called Mikhrot Shelomo ha Melekh (King Solomon's Mines) are at the top of a north-south-trending mesa about 1 000 ft (305m) long and more than 425 ft wide at its widest point. Along the mesa's north wall are scenic columnar rock formations, along whose sides traces of the cupriferous slag can be seen. These are known as 'Ammude Shelomo [Pillars of Solomon].

According to Glueck (1959:155) the ores dug in open mines were given a preliminary 'roasting' whereafter the Bessemer process was applied in smelters to produce the final metals. The Bessemer process was only rediscovered in Germany during the 19th century A.D. (cf Glueck 1959:165). However, in the case of Solomon's Mines and smelters, the hot desert winds blowing from the north provided the required flow of air through the flues (cf Glueck 1959:164).

The huge slag mounds in the vicinity of the copper mines and smelters could substantiate 1 Kings 7:47 about the use of large volumes of brass in Yahweh's temple as per the Scofield Reference Bible (1917) 'neither was the weight of brass found out'[4)].

However, as far as the source of the copper for the implements in Yahweh's temple in Jerusalem is concerned, the Bible mentions a different location which is situated in the northern part of Israel. According to 2 Chronicles 18:8 (Scofield Reference Bible 1917) the relevant source is identified as follows:

> Likewise from Tibhath and from Chun, cities of Hadarezer brought David very much brass, wherewith Solomon made the brassen sea, and the pillars, and the vessels of brass.

As mentioned above, in order to produce brass and bronze the copper had to be combined with zinc and tin respectively. Again as mentioned above, cooperation with the Phoenicians was reached to transport zinc and tin to Ezion-Geber. On the other hand it is highly probable that the exports of brass and bronze from Ezion-Geber also had to be shipped possibly on return voyages by the Phoenicians. I posit in this regard that these exports could also have included manufactured products such as shields and other weaponry which would have earned for the producers and merchants higher revenues as well as profits together with much needed taxes for the government.

[4)] It is noteworthy that in the Dutch and First Afrikaans Bible (1933) translations of 1 Kings 7 the word *koper* i.e. copper is used instead of brass.

2.6.3 Dor

However, for the imports of, for example, tin from Tharshish in modern Spain and exports of finished products there was also a need for a Mediterranean port in Israel. For this purpose Dor was ideally situated to play a vital role (See Figure 3).

With regard to Figure 3, Stern (2000:104-106) draws the following geopolitical setting of Dor:

> The period of the United Monarchy – the reigns of David and Solomon [1000-925 B.C.E] – was a time of florescence for Dor in particular and for the Sharon coast in general. Both kings maintained close ties with the Phoenician cities, especially with Tyre, which at this period were all that remained of the territory still populated by former Canaanites, who from then on were known as Phoenicians. Phoenicia comprised most of the modern Lebanese coast. Its four great cities – Aradus, Byblos Pidon, and Tyre – still preserved the essence of the knowledge and expertise acquired by the Canaanites in the course of the 2nd millennium in all aspects of art, building, metalwork, seal-carving, wooden furniture, weaving, spinning, purple-dyeing, ship-building and seafaring. This small area was all that remained of the larger territory the Phoenicians had controlled earlier, and they proceeded to turn it into a cultural and commercial centre based on maritime trade. As we have seen, they had already begun to expand westward a hundred years earlier – to Cyprus, where the first Phoenician colonies were established, and then to all the shores of the Mediterranean. In the late 11th and 10th centuries B.C.E., tiny Phoenicia was the cultural centre of the entire ancient Near East. However, since their military strength had declined and they relied for the defence on their ships, the Phoenicians concluded commercial treaties with their new neighbors (sic) to the south, and even their territorial expansion into the borderlands between the two states was a peaceful one, by means of trade – a policy that benefited both peoples.

In the next chapter the importance of Dor for Phoenician international trade will be further discussed.

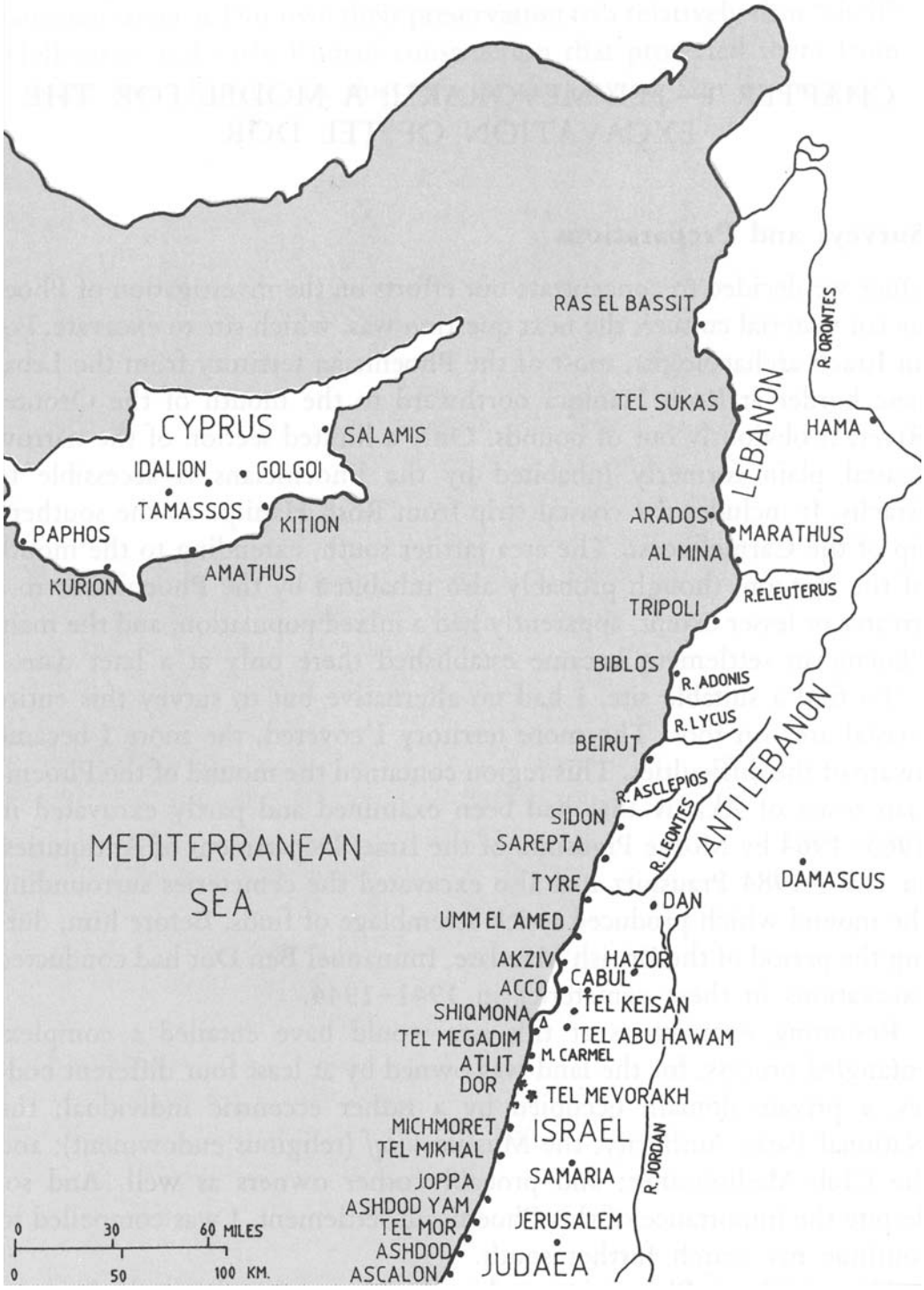

Figure 3.

Geographical situation of Dor[5)]

[5)] Stern, E 2000. Dor ruler of the Seas. Jerusalem: Israel Exploration Society.

2.7 SUMMARY

In this chapter endeavours have been made to lay the foundation and provide the background to the ancient trade during the Old Testament between the Ancient Near East and Eastern Africa. In this regard it was shown that geopolitical factors and economic forces served as a catalyst to enforce economic cooperation between *inter alia* Israel, Tyre and Saba. This trade cooperation enabled these countries to optimise their own comparative advantages. Under king Solomon it was possible for Israel in cooperation with Tyre to develop and achieve comparative advantages in the supply of copper, brass and especially bronze. At times when prices for such metals and alloys are skyrocketing (as during 2005/2006) due to increased demand, but limited supplies, the suppliers can obtain large profits as well as economic gains for their relevant countries.

Various trade routes were discussed in the Biblical context of 1 Kings. However, uncertainty still surrounds some of the key issues. Accordingly, in the next chapter specific attention will be given to the role of the Phoenician seafarers.

CHAPTER THREE

PHOENICIAN MARITIME TRADE

3.1 INTRODUCTION

The name 'Phoenician' encompasses the ancient seafaring and trading people who lived in a number of city states along the east Mediterranean coast. However, Handy (1997b:154) points out that there are differences about which city states should be regarded as Phoenician and those which should be discarded in this context. The focus in this study will be on the city states of Byblos, Sidon and Tyre (See Figure 3). As Handy (1997b:155) points out, at no stage was there a Phoenician nation. The Greeks and Romans knew the relevant coastal area as Phoenicia or 'Region of Palms.' According to Rawlinson (2005:1) this term was used with a deal of 'vagueness' of the Syrian coast between Asia Minor and Egypt. However, according to Rawlinson (2005:2) the Greeks identified Phoenicia as being confined to:

> … the more central portion of the coast region only, that towards the north taking the name of Syria, or the country of the Syrians, and that towards the south the name of Palestine, or the country of the Philistines. Shorn thus of its extremities, Phoenicia was reduced to a tract about two hundred miles in length, extending along the Eastern Mediterranean from a little below the thirty-third to a little below the thirty sixth parallel.

In the following discussions, the seafaring activities i.e. maritime trade of especially Tyre will be featured, in the context of the Ancient Near East.

3.2 ORIGIN OF THE PHOENICIANS

Where did the Phoenicians come from? Although as Handy (1997b:155) points out, their origin is 'somewhat murky'; the relevant Phoenician cities were established long before the 10th century B.C. By the 12th century B.C. the so-called Sea Peoples (who had destroyed Ugarit, may have damaged

Byblos) had invaded and probably started to settle on the Syro-Palestinian coast (cf Handy 1997b:155).

3.2.1 Struggle between Sea Peoples and Phoenicians

For the purpose of this study it is necessary to differentiate between the Sea Peoples and the Phoenicians without being able to go into too much detail.

Singer (1988:239) refers to the origin of the Sea Peoples as follows:

> The term 'Sea Peoples' was coined in the modern research as a common denominator for nine seaborne peoples who, according to Egyptian sources, came from the north in an attempt to invade Egypt and Canaan. The Egyptian sources do not provide us with more exact details concerning the origins of the Sea Peoples, nor of the historical circumstances of their movements. Here the northern sources come to our aid particularly three archives within the realm of the Hittite Empire – Hattuša, Ugarit and more recently Emar on the Middle Euphrates.

Singer (1988:248) also refers in this regard to an Egyptian source:

> Another 11th century Egyptian document, the Onomasticon of Amenemopo lists the names of three Sea Peoples one after the other: Šerdani, Sikila and Philistines. The Šerdani/a are wellknown as mercenaries in the Egyptian army and elsewhere.

With regard to Tyre it is according to Handy (1997b:155) highly probable that the city and its harbour survived the Sea Peoples' invasion 'fairly intact and quickly became the major trading city in the area in its wake.' However, little is known about the timing of this 'invasion'.

In fact, subsequently there was according to Stern (2000:99) a 'determined struggle' between the Sea Peoples and the Phoenicians for control of the maritime trade routes. Stern (2000:99) describes this struggle as follows:

> Dor was probably attacked and destroyed by the Phoenicians in the course of this struggle, as undoubtedly happened also at Akko and other coastal cities held by the Sherden. It seems that the Sikils and Sherden were always a minority, though a dominant one, in these cities. Only to the southern coastal cities, south of the Yarqon, with their predominantly

> Philistine population did the Phoenicians penetrate peacefully through [sic] commercial activities.

The above-mentioned struggle and victory by the Phoenicians laid the foundation for the subsequent Phoenician consolidation and expansion.

3.2.2 Phoenician Consolidation

Gore (2004:34-36) says that it was not until around 1100 B.C. after a 'period of general disorder and social collapse throughout the region' that the Phoenicians became known as a significant cultural and political force. Between the 9th and 6th centuries B.C., the Phoenicians dominated the Mediterranean Region. According to Gore (2004:37) they established colonies from Cyprus to the Aegean sea in the east, Italy, North Africa and even Spain in the West. Matthews (1974:150) describes the Phoenician expansion as follows: 'For centuries their wily trading, canny diplomacy, and far-ranging explorations made the Mediterranean a Phoenician lake.'

Rawlinson (2005:87) comments on the Phoenician consolidation and expansion as follows:

> The enterprise of the Phoenicians in the early ages, while Sidon was in the ascendant, did not [it is probable] take them beyond the limits of the Mediterranean; but within those limits they would seem to have visited all coasts, to have explored all shores, to have made themselves acquainted with almost every individual island, and to have carried with them everywhere civilizing influences.

Evidence of such 'influences' would only come to light much later.

3.2.2.1 Archaeological Evidence

Many centuries elapsed before archaeologists exposed the grandeur of the Phoenician civilisation. They had to dig through layers of Hellenistic, Roman and even Crusader occupations before uncovering Iron Age evidence at Tyre (now called Sur). Some of this evidence is now found in the Lebanese National Museum in Beirut. Gore (1974:154) describes *inter alia* the sarcophagus of King Ahiram of Byblos with the inscription: 'Ahiram,

King of Byblos … His Abode in Eternity ….' Four lions are crouched at the corners. A line of courtiers stand before the king who is seated on a throne which is flanked by winged sphinxes. A twisted rope and lotus flowers run around the limestone coffin.

3.2.2.2 Cooperation with Israel

Meanwhile the consolidation and territorial expansion of neighbouring Israel had continued. Stern (2000:99-101) refers as follows to the resulting cooperation between King Solomon and the Phoenicians:

> When David united the Israelite kingdom and vanquished the Philistines in the south of the country, it seems that he had also captured the northern coast from the Phoenicians of Tyre who had invaded it. However, he and certainly his son Solomon after him, chose to withdraw from considerable areas of the coast in return for economic and commercial cooperation with the Phoenicians, in recognition of Phoenician superiority in material culture: in art, building, metal casting, etc., and especially in navigation and trade. The border now stretched along the top of the Carmel range.
>
> The destruction of Dor and the rapid renewal of the cities along the northern Palestine coast were part of the Phoenician expansion. Perhaps had the Phoenicians not been blocked in their early southward expansion by the Israelite United Monarchy, their colonization drive overseas to the west might have been delayed for many years.

However, the fact that the Phoenicians were 'blocked in their southward expansion' by Israel presented new economic opportunities to them. As discussed in Chapter Two this resulted in economic cooperation between the Phoenicians and their southern neighbours.

3.3 ALPHABET

The Phoenician alphabet of 22 symbols (each representing a distinctive sound) played an import role in developing international trade. From their squiggles also came the Western alphabet much later. With the Phoenician script it was easy to write on papyrus or on pottery. No wonder that there was a close relationship between papyrus and Byblos. When the Old Testament became translated into Greek, the 'Word of God' was given the

city's name – the Bible. Matthews (1974:160) puts the Phoenician achievement very aptly as follows:

> Mightier than the sword, the cargoes of Phoenicia's travelling salesmen revolutionised the lives of foreigners they met, perhaps more than any invading army. Their deep-laden "round ships" brought fresh ideas, ingenious waves, and a new alphabet that has served the world ever since.

In the context of this study it is noteworthy that many Phoenician words most commonly used, the particles, pronouns, forms of the verb, principal inflexions and numerals are identical or nearly identical to pure Hebrew (cf Rawlinson 2005:24). However, there are according to Rawlinson (2005:24) some major differences between Phoenician and Hebrew which he spells out as follows:

> Yet still Phoenician is not mere Hebrew; it has its own genius, its idioms, its characteristics. The definite article, so frequent in Hebrew is in Phoenician extremely rare. The quiescent letters, which in Hebrew accompany the long vowels, are for the most part omitted. The employment of the particle for the definite tenses of the verb is much more common than in Hebrew. Aramaisms are more frequent. The feminine termination of nouns is never *h*. Peculiar forms occur, *ash* for *asher*, *alonim* for *elohim*,*'amath* for '*am*, 'populus, and the like.
>
> Overall, however, the similarities between Phoenician and pure Hebrew would have facilitated the communication between the Phoenicians and their counterparts in Israel to promote cooperation in various fields especially in terms of trade.

3.4 TYRE

In some sense Tyre (See Figure 4) may be regarded as the capital of Phoenicia. Being the most important of the Phoenician towns it was also regarded as the 'strong' town in Joshua 19:29 (Scofield Reference Bible 1917):

> And then the coast turneth to Ramah, and to the strong city Tyre; and the coast turneth to Hosah; and the outgoings thereof are at the sea from the coast to Achzib;

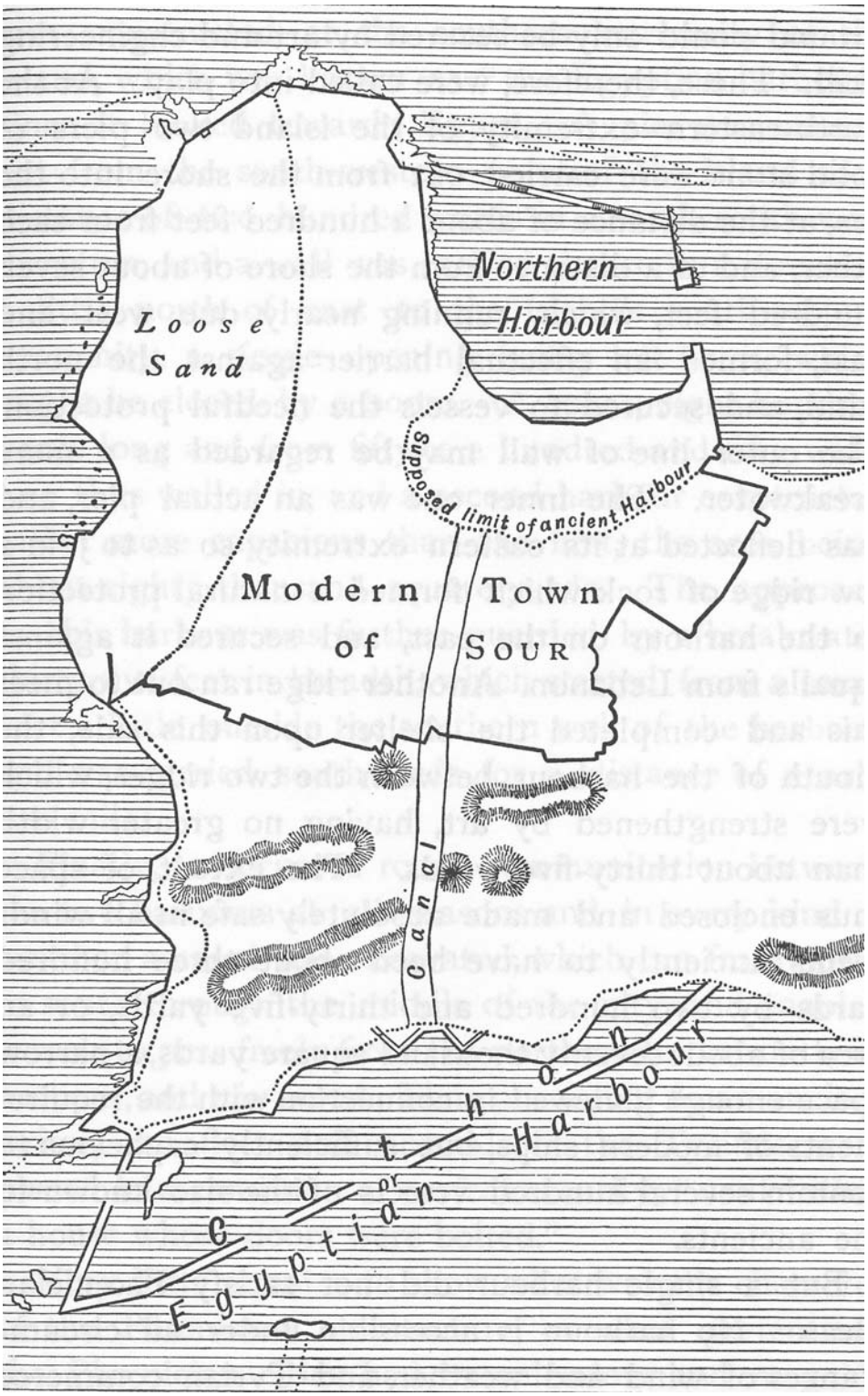

Figure 4.

Ancient Tyre[6)]

[6)] Rawlinson, G 2005. Phoenicia History of Civilization. London: Tauris.

Rawlinson (2005:40) compares Tyre with what Rome was to Italy: '-the natural leader and head, the directress and monitress, the national impersonation and embodiment.'

In fact there were two Tyres. According to Rawlinson (2005:41) the Tyre upon the shore was known to the Greeks and Romans as Palaetyrus or 'Old Tyre' where as 'New Tyre' was the island of Tyre. Regarding the latter island, Rawlinson (2005:41-42) gives the following description:

> It appears that from a very early date the two principal islands of the group, or string, above described, were occupied by settlements, the smaller one, which lay to the north, or north-west, of the other, being made the site of a great temple to Melkarth, while the larger one was wholly covered with houses which were many storeys in height, and closely crowded together in the narrow space. This state of things continued till the time of Hiram, the friend of David and Solomon. Hiram filled up the channel between the two main islands, thus uniting them into one, pulled down the Melkarth temple, and erected a new temple to Baal and Ashtoreth on a different site, and utilized the whole space of the Melkarth temple and its *temenos* for houses and other buildings. He also greatly enlarged the main island towards the east, filling up the sea with stone and rubbish to a considerable distance on that side, and thereby a broad space, which he laid out in streets and squares. One of these latter was known as the "Eurychôrus;" it was probably a large open place, surrounded by grand buildings like the Piazza of St. Mark at Venice, and served as a meeting-place for the assemblies of the people as well as for other purposes. By these means the 'Island Tyre' attained a circumference of twenty-two stadia, or about two and a half miles.

The city of Tyre therefore stood out in the Ancient Near East as one of the noblest cities. One only has to read Ezekiel 27:1-25 to be impressed by the wealth of Tyre. Ezekiel, who was the prophet in exile in Babylon, described Tyre as it was before Nebuchadnezzar started in 585 B.C. to besiege the city for 13 years. Ezekiel places the emphasis at the start of his lamentation on the maritime features of Tyre. Parts of ships such as 'planking', 'mast', 'oars', 'deck', 'sail', 'oarsmen' and 'sailors' feature in Ezekiel 27:1-9. Ezekiël 27:5-7 (Scofield Reference Bible 1917) is of special interest to this study:

> They have made all thy ship boards of fir trees of Senir: they have taken cedars from Lebanon to make masts for thee. Of the oaks of Basban have

> they made thine oars; the company of the Ashurites have made thy benches of ivory, brought out of the isles of Chittim.
>
> Fine linen with broidered work from Egypt was that which thou spreadest forth to be thy sail; blue and purple from the isle of Elishah was that which covered thee.

The prophet, in Ezekiel 27:10 then goes on in describing the mercenaries from *inter alia* Persia, Lud and Put who manned the Phoenician ships.

Ezekiël 27:12-25 makes mention of a range of countries and regions with which the Phoenicians traded. Ranging from Tarshish (in modern Turkey), Damascus and Zahar, the relevant regions also include Arabia and specifically Saba. In each instance the relevant trading goods are also mentioned. For Judah and the land of Israel, these goods include corn, wax, honey, tallow and balm. In Ezekiël 28 the prophesy, containing the fall of Tyre, continues.

Although Nebuchadnezzar was unsuccessful in capturing the city of Tyre, Alexander the Great was more successful. Tyre had been a coalition partner of the Persian empire for many years and provided naval support against the conquest of Alexander the Great of the Ancient Near East. According to Bamm (1965:128) Alexander the Great needed military control over important harbours on his way to Egypt. Although several supporters of the Persians were changing their loyalty to the forces of Alexander the Great, the navy of Tyre refused to do so. In order to teach Tyre a lesson, Alexander the Great besieged Tyre. It is noteworthy that Tyre according to Bamm (1965:129) was the birthplace of princess Europa who gave her name to the continent where Alexander the Great was borne. It would have created big problems for the Macedonian army if Carthage on the North African coast would have assisted their Phoenician counterparts in Tyre to resist the onslaught of Alexander the Great. However, Carthage's commercial and political interests were mainly concentrated on the Western side of the Mediterranean arena (cf Bamm, 1965:129). After a seven month assault, and building a causeway to the

island of Tyre, Alexander the Great triumphed in 332 B.C. (cf Gore 2004:44).

3.5 JOSEPHUS

In order to gather more evidence about the activities of the Phoenicians it is helpful to consult Josephus who provides the largest amount of information about Tyre in the 10th century B.C. (Handy 1997:157). Especially in *Against Apion* 1.17-18, Josephus provides insight in the reign of king Hiram I of Tyre and his relationships with David and Solomon. Josephus in Whiston (2003:780) describes these relationships as follows: '…for Hirom [sic], the king of Tyre, was the friend of Solomon our king, and had such friendship transmitted down to him from his forefathers.'

Josephus in Whiston (2003:780) goes on to describe the material assistance provided to Solomon in building his palace and the temple. In this regard, for example, Hiram '…cut down the most excellent timber out of that mountain which is also called Libanus …'

Josephus in Whiston (2003:781) also provides a chronological list of Tyrian kings covering the time from Hiram I to the founding of Carthage. In the relevant writing of the Phoenician history, Josephus calls as his witnesses two ancient historians namely Menander of Ephesus and the Phoenician historian Dius. Regarding Dius, nothing else is known about him according to Handy (1997b:158) except that Josephus said that Dius was a trustworthy historian who based his Phoenician history on the accurate ancient records kept at Tyre. Handy (1997b:158) refers also to other ancient records written *inter alia* by Philo of Byblos and Homer (ca 800 BC?) about Phoenician history.

3.6 PHOENICIAN TRADE

3.6.1 *Murex* Snails

Phoenicia played a dominant role in regional economics. Two of the products in which it had a comparative advantage were its purple dye (from the *Murex* snails) used for exquisite clothing. The Phoenician coast was abound with two species of shell-fish which were able to provide the inhabitants with an exquisite dye for clothing. Rawlinson (2005:5-6) describes these shell-fish and the relevant extraction process as follows:

> These are the *Buccinum lapillus* and the *Murextrunculus*. The *buccinum* derives its name from the form of the shell which has a wide mouth, like that of a trumpet, and a siral form, terminating in a small rounded head. The *murex* has the same general form as the *buccinum*, but the shell is more rough and spinous. The mollusks which inhabit these shells have a receptacle or *sac* behind the head in which a very minute portion of a colourless, creamy fluid is contained having a strong smell of garlic. If it be carefully extracted by a hook, or a pointed pencil, and applied to wool, linen or cotton, and the material be then exposed to a strong light, it becomes successively green, blue, red, deep purple-red, and by washing in soap and water, a bright crimson, which last tint is permanent. Although the shell-fish capable of producing this dye are not confined to any single locality, and the secret of extracting it was known to many ancient nations, yet nature seems to have so far favoured Phoenicia, that through all antiquity she maintained a pre-eminence over all other purple-producers. Something may have been due to art: her chemical knowledge may have found employment in the purple industry; but it is only reasonable to suppose that her admitted superiority in the trade rested primarily on her having an inexhaustible supply of the best fish, furnishing the brightest dye, and perhaps a little on the brilliancy of her sunlight, which brought out the tints more vividly than the more subdued radiance of a cloudier and duller heaven.

However, when the first edition of Rawlinson's book saw the light in London's grey skies in 1889, he was not aware of the excavations at Dor nearly one hundred years later. These excavations proved that the Phoenicians did not rely on the Mediterranean sea to provide them with the *Murex* snails for the production of purple dye. According to Stern (2000:195-200) evidence was found during the excavations at Dor that the Phoenicians had also developed the art of aqua-culture to cultivate the production of *Murex* snails in specially designed workshops. Stern

(2000:198-199) refers in this regard *inter alia* to the excavated Areas C, D and G. For example, in Area C a heap of crushed and broken Murex shells were discovered which Stern (2000:198) describes as follows:

> It seemed as though crushing the shells with the snail inside was a part of the process of extracting the dye from them. All the several thousand Murex shells in the accumulation were of like size, which suggests their having been raised under controlled conditions, perhaps in special pools like the ones described above, rather than fished from the sea.

The Phoenician purple dye process is consequently another classic case of achieving and using comparative advantages to achieve the competitive edge in international trade.

3.6.2 Cedar Wood of Lebanon

Combined with excellent maritime facilities, the Phoenician cities were able to take full advantage of trade opportunities. As Handy (1997b:159) points out: '…the use of cedar wood, especially the highly prized Lebanon cedar, in temple and palace construction is recorded in both Egyptian and Assyrian annals.' Phoenicia supplied valuable wood by ship to Egypt, Cyprus and even further west as well as overland to Israel and the eastern Mesopotamian kingdoms (cf Handy 1997b:159).

The available wood of Lebanon also provided the Phoenicians with a distinct advantage in the building of sturdy seaworthy ships. Wooden ships were more durable and easily navigated than those boats constructed from papyrus and other forms of reeds (see next chapter). The export of purple dyed exquisite clothing for royalty and the rich, went hand in hand with other luxury items. The latter included, according to Handy (1997b:160) handcarved ivory items which can be documented from the 13th to the 7th centuries B.C. In the early times mainly hippopotamus tusk ivory was used, but later on elephant tusks were imported by the Phoenicians from far away sources which possibly included Africa and India (cf Handy 1997b:158).

3.6.3 Pottery and Metals

The Phoenicians also had their own distinctive pottery which was not only manufactured for their own local use, but also for export to their own colonies and to foreign countries. According to Handy (1997b:158) by the 11th century B.C., bi-chrome ware was not only found in Phoenicia and Cyprus, but even as far as Egypt: '…by the 9th century, the pottery decoration most commonly found was red ware.'

The Phoenicians also became known for the use of metals. Their trade relationship with Israel (see Chapter Two) must also have benefitted the Phoenicians in obtaining copper and brass from the smelters near Ezion-Geber (cf Glueck 1959:155).

The construction of the harbour at Ezion-Geber is also mentioned in Phoenician sources. According to Keller (1974:200) the Phoenician priest Sanchuniathon in his Early History of the Phoenicians wrote that king Hiram offered 'to deliver to the prince of the Judaeans building materials for a new palace, if he would concede him a port on the Ethiopian Sea.'

In the Britannica Micropaedia Volume IX (1974:843) Sanchuniathon and his writings are described as follows:

> ***Sanchuniathon*** (fl. 14th/13th century BC?), ancient Phoenician writer. All information about him is derived from the works of Philo of Byblos (flourished AD 100) who claimed to have translated his *Phoenicica* from the original text. The authenticity of that claim has been questioned, but excavations at Ras Shamra (ancient Ugarit) in Syria in 1929 revealed Phoenician documents supporting much of Sanchuniathon's information on Phoenician mythology and religious beliefs. According to Philo, Sanchuniathon derived the sacred lore from inscriptions on the Ammouneis (*i.e.* images or pillars of Baal Amon), which stood in Phoenician temples.

Sanchuniathon provides more details (Keller 1974:200) about the shipbuilding at Ezion-Geber by stating that suitable timber from the Lebanon had to be transported there on 8000 camels. Even the names of the Phoenician captains who commanded the fleet were mentioned by

Sanchuniation. The 'shipmen that had knowledge of the sea' were Kedarus, Jaminus and Kotilus (cf Keller 1974:201).

3.7 GEOGRAPHICAL LOCATION

In addition to having comparative advantages in its trade, Phoenicia was ideally situated geographically. Rawlinson (2005:9) describes this geographical location as follows:

> Further, Phoenicia lay in the natural course of trade between the East and West, and offered the readiest route for the interchange of the commodities of Asia and Europe – of the wealthy kingdoms, which, from a remote antiquity, had grown up in the great Mesopotamian lowland, and of the wilder yet still favoured regions to which the Mediterranean Sea gave access, the isles of Hellas, and the remoter shores of Italy and Spain. A much frequented caravan route led from Tiphsach (Thapsacus) on the Euphrates, by way of Damascus, to Tyre; and another passed form Asia Minor, by way of Hamath, to Tripolis and Aradus. Tyre, situated "at the entry of the sea" was "a merchant of the people for many isles" (Ezek. xxvii.3), and her sister cities were almost as favourably circumstanced. From a date which cannot be placed later than the twelfth century B.C. the carrying trade of the world belonged mainly to Phoenicia, which communicated by land with the Persian Gulf, the Euphrates, Armenia, Cappadocia, and Anatolia by sea with Egypt, Greece, Italy, North Africa, Gaul and Spain.

As mentioned in the previous chapter the cooperation between King Hiram of Tyre and King Solomon of Israel provided opportunities to expand maritime trade from the Ezion-Geber harbour into not only the Red Sea, but also the Indian ocean to faraway places such as East Africa.

3.8 COLONIES OF THE PHOENICIANS

3.8.1 Circumnavigation of Africa

Tyre's fleets sailed under a variety of flags. For king Solomon (see Chapter Two) ships of Tyre sailed to Ophir and other exotic places including possibly India. In about 600 B.C. according to the Greek historian Herodotus (cf Matthews 1974:180), Phoenician sailors in the pay of Pharaoh Necho (609 to 593 B.C.) circled Africa. The latter journey was only

repeated nearly 2000 years later by the Portuguese under their King Dom Henrique (cf. De Kock 1957:41).

Necho recruited the finest sailors who were the Phoenicians and sent them south from the Red Sea. Matthews (1974:180) quotes Herodotus as follows:

> … whenever autumn came they would put in and sow the land … then, having gathered the crop, they sailed on, so that after two years had passed, it was in the third that they rounded the Pillars of Heracles and came to Egypt. There they said [what some may believe, though I do not] that in sailing round Libya they had the sun on their right hand.

Although Herodotus did not believe in the truth of the relevant voyage, I am of the opinion that the Phoenicians and their ships were capable of making such epic journey and circumnavigating Africa. In this regard it is appropriate to quote Rawlinson (2005: 176-177) as follows on the epic voyage by the Phoenician sailors:

> The sailors took their departure from a port on the Red Sea, and coasting along its shores passed the Straits of Babelmandel, and entered upon the southern or Indian Ocean. Still hugging the land, they proceeded south-eastward, past the Somanli country, Zanzibar, Mozambique and Zululand, till they reached the Cape of Good Hope, when they commenced their return journey, coasting the western side of Africa, and finally reaching Egypt by way of the Straits of Gibraltar and the Mediterranean. It took them nearly three years to accomplish the voyage, since they were insufficiently provisioned, and found it necessary each autumn to effect a landing on the coast, to plough up a tract of ground, sow it with grain, and await the ripening of the corn in the ensuring spring.

Regarding the above-mentioned disbelief expressed in such epic voyage by Herodotus it is appropriate to quote Rawlinson (2005:177) as follows:

> The reality of this circumnavigation, and the general credibility of the narrative, have been the object of much doubt and criticism. But there seems to be no reason why the physical difficulties should not have been overcome by a people accustomed to affront the dangers of the open Atlantic.

I find it ironic that during the days of Herodotus in and about 450 B.C., he produced a world map which showed Africa as the only continent in full (Britannica Macropaedia, Volume I 1974:206). In this regard it is worthwhile

to mention that when I started my secondary research in the late 1960s on the Phoenicians, I discovered a road map of the Cape Pensinsula showing the wreck of a 'Phoenician galley'. The relevant map (published by Mobil, a South African oil company in the 1960s) showed this shipwreck to be located in the middle of the Cape Flats about 10 kilometres from Cape Town. However, since then I have, despite an intensive search been unable to obtain further information about this alleged Phoenician shipwreck.

3.8.2 Carthage

Family feuds within the Phoenician priestly and royal families also carried their toll. A party of Phoenician pioneers led by Princess Elissa fled Tyre to found Carthage in approximately 814 B.C. According to various sources (cf Rawlinson 2005: 118-120; Howe 2005:12) Queen Elissa Dido (meaning the wanderer) fled her brother King Pygmalion in Tyre with her followers to North Africa. Rawlinson (2005:118-119) describes the feud between Princess Elissa and her brother Pygmalion in colourful and lyrical terms as follows:

> The story which has come down to us respecting the foundation of Carthage by a body of Tyrian settlers, runs somewhat as follows: - Matgen or Mattan, the grandson of Eth-baal, who died after the short reign of nine years, left as join heirs to his crown a daughter, Elissa, who was a maiden of great beauty, and a son, who was a mere boy of about eight or nine. Elissa being of marriageable age, was wooed and won by her maternal uncle, Sicharbas or Acerbas [the "Sichaeus" of Virgil], who was one of the wealthiest and most powerful of the Tyrian nobles, and high-priest of the Tyrian god Melkarth. Within a short time of the death of Mattan a popular revolution took place. Elissa was deprived of the royal title and power, and her brother, Pygmalion, despite his extreme youth, made sole king. Desiring to possess himself of the great wealth of his brother-in-law, Sicharbas, Pymalion ere resolved on his assassination. Either secretly in a hunting expedition, or openly in the temple of Melkarth, where he was ministering, Pymalion attacked Sicharbas, and slow him. Elissa, rendered intensely unhappy by the death of her husband, whom she loved with extreme ardour, made up her mind to quit the country of her birth, which had become hateful to her on account of her misfortunes, and to seek for resignation and peace of mind amid the novelties and distractions of a new and distant scene.

The Britannica Micropaedia Volume II (1974:598) refers in more sober terms to the founding of Carthage as follows:

> Various traditions concerning the foundation of Carthage were current among the Greeks, who called the city Karchedon; but the Roman tradition is better known because of the Aeneid, which tells of the city's foundation by the Tyrian princess Dido who fled from her brother Pygmalion, the name of historical king of Tyre. The inhabitants were known to the Romans as Poeni, a derivation from the word Phoenikes (Phoenicians), from which the adjective Punic is derived.

When the local inhabitants told Queen Dido that she could take as much land as could be covered with an ox-hide, the Queen cut a hide into long strips and wrapped them all the way around the hill of Byrsa, meaning ox-hide (Howe 2005:12).

Rawlinson (2005:120-121) subsequently expresses his own doubt of some of the stories about princess Elissa and her brother Pygmalion as follows:

> There can be no doubt that a great part of his tale is myth. Very little of it comes down to us from the Tyrian historians, whose fragmentary notices are curt, dry and commonplace to a fault. The bulk is derived from Greek and Roman historians, and Latin poets and commentators upon poetry, who are never very trustworthy authorities. Modern critical historians accept the tale so far as to believe in the existence of Elissa and Pygmalion, in their quarrel, and in the withdrawal of Elissa, with a body of her supporters to Carthage, but deny or question almost every other portion of the story. Thus far they stand upon tolerably safe ground.

However, Queen Elissa and her followers did not only bring their intellect and experience to Carthage, but also their heathen deities and idols. The most horrifying legacy found in the ruins of Carthage is the Sanctuary of Tophet (cf Furneaux 1978:109-112; Howe 2005:14). In the 1920s, French archaeologists discovered more than 20000 urns with the ashes of children at the macabre site sacrificed to Moloch. 'Tophet', meaning in Hebrew 'the place of burning', is also mentioned in the Bible. Jeremiah 7:31, according to the Scofield Reference Bible (1917) describes 'Tophet' as follows:

> And they have built the high places of Tophet, which is in the valley of the son of Hinnom to burn their sons and their daughters in the fire; which I commanded them not, neither came it into my heart.

A few centuries earlier the Phoenician worship of deities already had infiltrated Israel.

3.8.2.1 King Ahab of Israel and Phoenician influence

Ahab, king of Israel, also had very strong ties with the Phoenicians. According to 1 Kings 16:30-32 (Scofield Reference Bible 1917) Ahab married into the royal house of Sidon:

> And Ahab the son of Omri did evil in the sight of the LORD above all that were before him.
> And it came to pass as it had been a light thing for him to walk in the sins of Jeroboam the son of Nebat, that he took to wife Jezebel the daughter of Ethbaal king of the Zidonians, and went and served Baal, and worshipped him. And he reared up an altar for Baal in the house of Baal, which he had built in Samaria.

Stern (2000:119-120) also refers to evidence of cooperation between Ahab and the Phoenicians. In this regard there is a strong possibility that a seal excavated at Dor by the archaeological team of Stern is one of the Phoenician queen Jezebel (cf Stern 2000:119-120):

> The seal is carved in a strikingly Phoenician style and is inscribed with the name Jezebel; it has been published by N. Avigad. All the remains of the material culture of his time, whether at Samaria or other Israelite cities, shows deep Phoenician cultural influence: the style and method of building architectural decoration, sealcarving, ivories, stone and pottery vessels. The border between the two peoples must have been open and free.

Meanwhile, Carthage spread its mercantile wings via the sails of its numerous ships. After the founding of Carthage, the Bessemer smelting process (see Chapter Two) was also introduced there. Around 675 B.C. a huge metal working plant developed in Carthage which, according to Gore (2004:46), made use of surprisingly advanced technology: ‘CT scans of ancient bellows revealed they contained intake valves to regulate airflows into the hearths and raise the temperature of the hot iron.’

What is also interesting in this regard is that the Carthaginians were hardening their weapons by using a metallurgical technology by adding considerable quantities of calcium to the relevant metals. According to Gore (2004:46) this calcium was obtained by crushing the same mollusk (*Murex*) which provided the purple dye for the fine clothing produced by the Phoenicians. Overall, this type of downstream economic integration is a true form of the beneficiation of raw materials.

3.8.3 Indian Ocean

This brings me to the question whether the Phoenicians ever succeeded in establishing harbours and even colonies on the shores of the Red Sea. In this regard it is appropriate to quote Rawlinson (2005:70-71) as follows:

> It is uncertain whether the Phoenicians ever succeeded in establishing themselves on the shores of the Red Sea. The fact that they had a settlement at Memphis is a strong indication that the Egyptians looked upon them with favourable eyes; and if so, it would have been natural that they should grant them a settlement on the Red Sea shore, which they must certainly have coveted. But the only indication which we have of any such settlement is contained in the name "Baal-Zephon', which is Phoenico-Egyptian, attached to a place on the borders of the Gulf of Suez [Exod. xiv. 2,9; Numb. xxxiii.7]; and this is too weak to be regarded as an actual proof.

The available knowledge of Phoenician history seems to suffer from the deficiency in reliable evidence (cf Schepens 1987:315). However, one is able to use various Greek historians. Ephorus, in the 4th century B.C. can be considered according to Schepens (1987:315) as an important classical authority on Phoenician history. The two-volume-treatise 'On Inventions' is a testimony of the interest Ephorus took. In the ancient history Ephorus can be regarded as the first universal historian who provided his fellow Greeks with a global overview of the Phoenician empire. According to Schepens (1987:321) Ephorus offered his readers a 'general and systematic survey of world geography'.

For the purpose of this study, the Phoenician settlements on or off the African coast are of special interest. Besides the Phoenician settlements on

the North African coast, Ephorus also mentions an African island called Kerne (cf Schepens 1987:322). However, there is some ongoing debate about the exact location of Kerne. According to Schepens (1987:323) Kerne seems to refer to one of the colonies founded by Hanno on the west coast of Africa. However, Pliny is following Ephorus in describing (Schepens 1987:323) Kerne as an island opposite the Persian Gulf and lying off Ethiopia; neither its size, he says, nor its distance from the mainland has been ascertained, but it is reported to be inhabited by Ethiopian tribes. Schepens (1987:323-324) refers to Bunbury who concluded that Ephorus stated that it was impossible to navigate from the Erythraean Sea to Kerne (in the West), because of excessive heat which should have made it impossible to circumnavigate Africa by Phoenician vessels as directed by Necho (see 3.7). However, Schepens (1987:324) concludes that there is no indication that Ephorus was wrong about the east African site of Kerne. In this regard Schepens (1987:324) points out that the reference to 'because of the heat' refers to 'horror tales' of the Phoenicians in their efforts 'to keep their trade routes to themselves.' Throughout history seafarers such as those of Portugal and other European countries have followed this habit in their explorations during the 15th and 16th centuries A.D.

3.9 SUMMARY

This chapter shows how the development of the Phoenician trade ports, especially Tyre, enhanced their dominance of ancient world mercantilism. Especially in the Mediterranean region the Phoenician ships became the camels of the sea. However, they also spread their wings i.e. sails in the Indian and Atlantic oceans. Thereby they also made their mark on Biblical history as discussed in the Old Testament especially during the Age of Solomon with regard to global trade. In this regard Rawlinson (2005:38-39) comments as follows on the Phoenicians:

> They were the first systematic traders, the first miners and metallurgists, the greatest inventors, the boldest mariners, the greatest colonizers – while elsewhere despotism overshadowed as with a pall the whole Eastern

> world, they could boast of a form of government approaching to constitutionalism; of all the nations of their time they stood the highest in practical arts and science – they were masons, carpenters, shipbuilders, weavers, dyers, glass-blowers, workers in metal, navigators, discoverers, beyond all others; if they were not actually the first inventors of letters, at any role they so improved upon the mode of writing which they found in use, that their system has been adopted, and suffices with a few additions, for the whole civilized world; they were the first to affront the dangers of the open ocean in their strong-built ships, the first to steer by the Polar star, the first to make known to civilized nations the remoter regions of Asia, Africa and Europe; they surpassed the Greeks in enterprise, in perseverance, and in industry; at a time when brute force was worshipped as the main source of power and only basis of national repute, they succeeded in showing that as much fame might be won, as much glory obtained, as real a power constructed by arts as by arms, by the peaceful means of manufacture, trade, and commerce, as by the violent and bloody ones of war, massacre, and conquest.

In the next chapter the combination of the technology of ancient seafarers with and adjustment to climatic conditions will be analysed and discussed in more detail. In this regard special attention will be given to ship designs and navigational skills.

CHAPTER FOUR

VOYAGES BY ANCIENT MARINERS BETWEEN THE ANCIENT NEAR EAST AND EAST AFRICA

4.1 INTRODUCTION

After having discussed the Phoenician international trade in the previous chapter, the focus in this chapter will be on the maritime voyages between the Ancient Near East and East Africa. Firstly attention will be given to whether the ship design and navigational skills during the period under review made those long sea voyages possible. Secondly the impact of the monsoon winds on such voyages will be discussed. In this chapter the importance of sailing skills will also be discussed.

Sails played a vital role in these ancient voyages across the oceans. In this regard Penry-Jones (1965:7) describes the history of the introduction of the sail as follows:

> No one can say when a sail was first used, but there is a piece of Egyptian pottery in the British Museum which bears a picture of a boat with a small square sail and that pot is known to be about 8000 years old. There are many similar sail-boats in the wonderfully preserved pictures in the tombs of Ancient Egypt.

The required skills and technology were thus developed over thousands of years.

4.2 SHIP DESIGN

As mentioned before, the Phoenician mariners were well known for their long seafaring journeys. During the Solomonic Age various Biblical sources make mention of these voyages (see Chapter Two). Gayre of Gayre (1972:21) also mentions that the ancients had large ships for moving vast quantities of cargoes. The Phoenicians had the technical abilities and the necessary materials such as wood to build their ships. Regarding these technical abilities, Raban (1988:261) comments on the relevant

archaeological data as follows: ‘Some of these new data might even be taken as initial evidence showing the Sea Peoples to have been a [sic] innovative element in the area, contributing new techniques and new concepts.’ In this regard it should be mentioned that the relevant ships were not only constructed to move by means of sails, but also by oars manned by rowers.

Rawlingson (2005:74) describes the design and operations of the Phoenician ships as follows:

> The earliest vessels of which we have any representation were impelled both by sails and oars. A number of rowers, varying between thirty and fifty in the later times, in the earlier probably fewer – perhaps no more than ten or twelve – occupied seats on either side of the vessel, and impelled it with oars made fast to the vessel’s side by means of a peg and a strap. These rowers sat all of them on a level, as in modern rowboats; they pulled with their faces to the stern of the boat, the course of which was directed by the steersman. If the wind served and it was desired to sail, a mast was raised from the bottom of the vessel, one end placed in a socket prepared to receive it about midship, and the mast then erected and secured in its place by means of two ropes attached to it near the top, and made fast to two bolts or stanchions, one at the head and the other at the stern of the vessel. Across the mast, near the top, was fastened a yard, about half the length of the mast, or a little more; and from this depended the sail, which was a fairly large square sail, and could be reefed along the yard, or loosened and let down at pleasure. There was but one mast in these early vessels, and but one sail.

Gayre of Gayre (1972:15) quotes Casson (1958:145) as follows on the advancement of the Phoenician shipbuilding techniques (Figure 5) during the Roman empire in later years of the Old Testament period:

> In 315 B.C. the Phoenician shipyards constructed for Antigonius a vessel which needed 1 800 men to row it, with thirteen men to each oar. The biggest wooden ship of the pre-Christian era was the war galley built by Ptolemy IV towards the end of the second century B.C. and it was 400 feet long and 50 feet wide, the figure heads on prow and stern towered more than 70 feet above the water and there were no less than 4 000 rowers manning its benches; the thranite oars (upper bank of oars) were mighty sweeps 57 feet long.

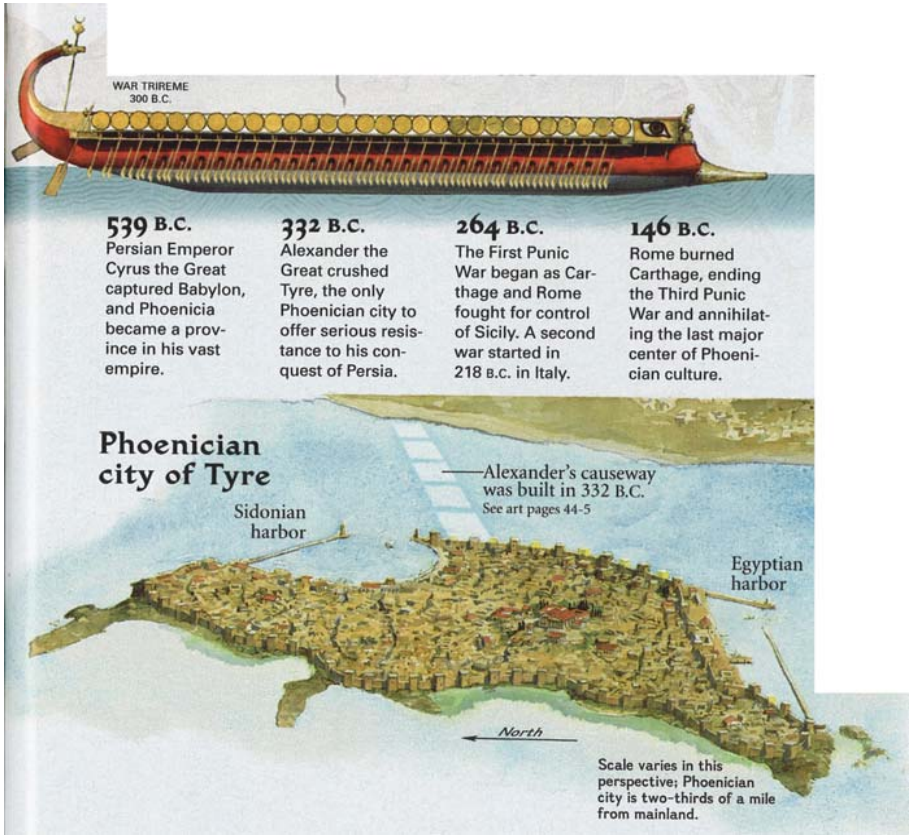

Figure 5.

War Trireme built by Phoenician Shipbuilders for Roman Empire with map of Tyre[7)]

[7)] Gore, R 2004. Who were the Phoenicians? In *National Geographic* Volume 206. No. 4: 26-49.

Accordingly the Phoenicians sailed and rowed their seaworthy ships to the limits of the known world, and beyond (cf Matthews 1974:150). The Phoenician merchant navy, however, consisted of tubby freighters under one square sail. In this regard Raban (1988:264) makes the following comments on research done by scholars such as Casson and Wachsmann on the Phoenician ship design which included bird decorations (Figure 6):

> Most of them would agree that the angular shape of the hull and the birdhead decoration of the stem- and sternposts clearly belong to Aegean tradition. The bird as a common decoration in the Aegean during the Bronze Age is attested to mostly by depictions dated to the 12th Century B.C., so it is difficult to refer to it as a tradition at the beginning of that century. As for the angular shape of the hull, with its vertical prow- and sternposts, there is only one earlier depiction from the Aegean sphere – on the painted *larnax* from Gazi in Crete, which is dated to Late Mycenaean III B. In Egypt we know of no real parallel to the decoration of birdheads since the Archaic era, yet there are indications of a tradition of furnishing seagoing vessels with a vertical stempost. This is the case of the ships of Hatshepsut's fleet sent to Punt in the Late Bronze Age and Sahure's, fleet of the Old Kingdom, where the vessels are depicted as being furnished with posts both prow and oft.

The above-mentioned bird decorations on Phoenician ships will again be referred to in Chapter Five (cf *5.4.3.3*) where similarities with the birdheads found at the ruins of Great Zimbabwe are discussed.

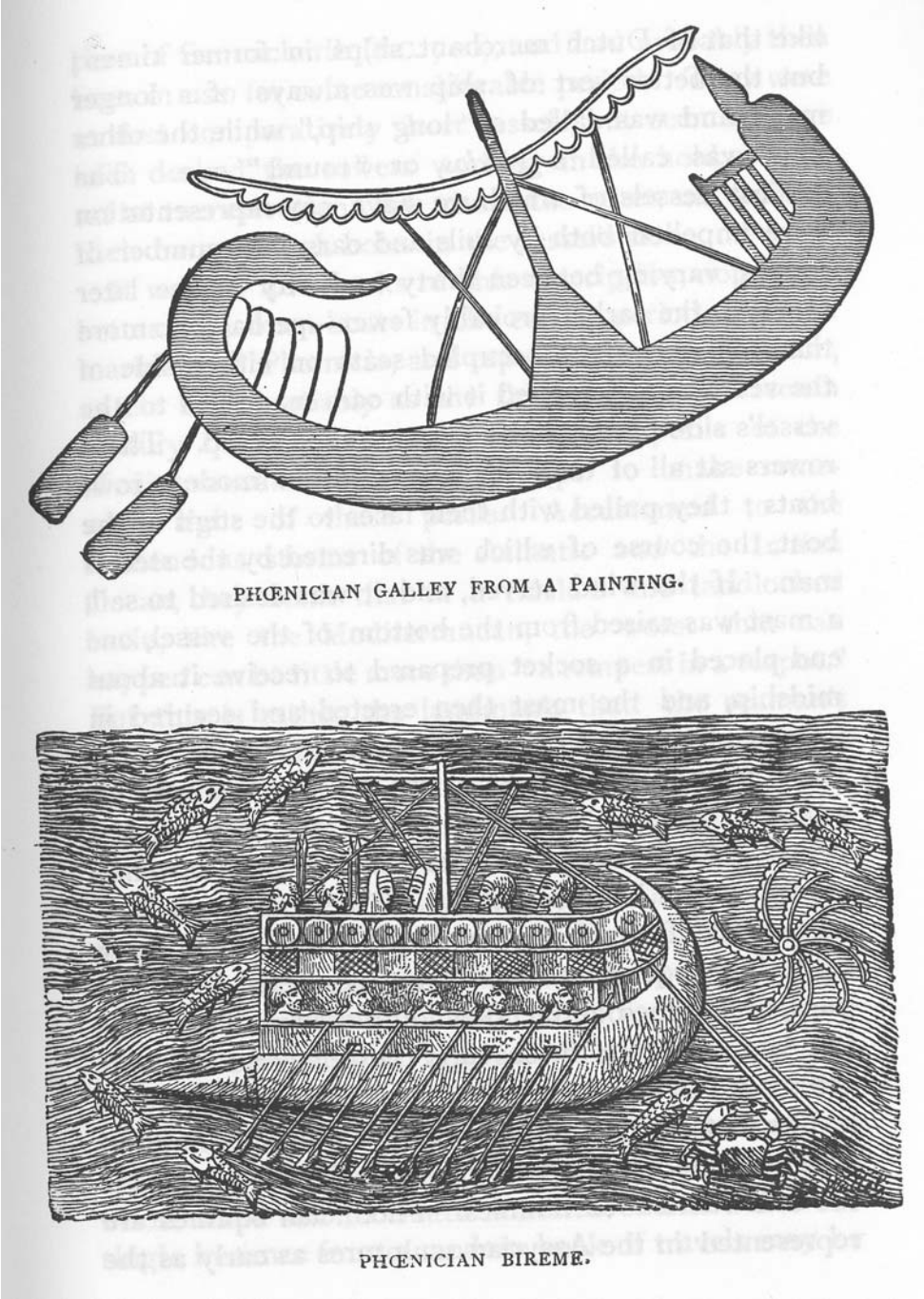

Figure 6.

Phoenician Galley with Bird design and Phoenician Bireme below.[8)]

[8)] Rawlinson, G 2005. Phoenicia History of civilization. London:.Tauris.

However, the ship's design and the use of a square sail and/or rowers meant that the Phoenician sailors had to make regular landfalls (cf 3.8.1). As in the Mediterranean, appropriate safe harbours had to be found wherever they sailed. Such stopovers would enable them not only to replenish their provisions, but also to make any necessary repairs to their ship. In this regard Gayre of Gayre (1972:19) states the following: 'A vessel constantly awash is not only in danger of mishap, but the health of the people on board and the preservation of their merchandise is at stake.'

4.3 NAVIGATION

Whitfield (1996:1) says that the

> … sea chart is also part of the history of navigation, and the means the seafarer used to locate himself upon the earth's surface, astronomical or otherwise, is inseparable from the history of the charts themselves.

According to Whitfield (1996:5) the knowledge of seafaring in the Mediterranean basin goes back some 5000 years, to the 'most important innovation in maritime history – the sail, which replaced human power with wind power, and which made possible the movement of large quantities of goods and people.' However, it is known that 'human power' still continued to provide energy by means of, for example, oars when there was especially a lack of sufficient wind power and/or in instances when the speed of the vessel had to be increased.

Whitfield (1996:5) points out that by 2500 B.C. Egyptian ships were already leaving the Nile delta to trade in Canaan. At the same time Sumerian ships from the Tigris and Euphrates rivers were sailing via the Persian Gulf to trade with the peoples of the Indus Valley (cf Whitfield 1996:5).

4.3.1 Dead Reckoning

However, according to Whitfield (1996:5) these ancient mariners did not have a compass, chart or accurate means of measuring direction or

distance. In this regard Whitfield (1996:5) refers to dead reckoning which is the basic form of navigation and this means:

> … observing one's speed and direction over a given length of time, and estimating one's position in relation to the point of departure and the destination. The weakness of dead reckoning is that there is no objective control, and errors will accumulate. With frequent checks by the sighting of familiar landmarks the system works well enough, indeed the landmarks provide a chain of navigation points, but once out of sight of land, some other way – however elementary – of gauging direction is required.

The above description of dead reckoning is confirmed in the Britannica Macropaedia Volume 15 (1974:903).

4.3.2 Sun and Stars

On the other hand, vital points of direction are determined by the sun as Whitfield (1996:6) points out as follows:

> East and west correspond to sunrise and sunset, south and north to the direction of light and of shadow. At night too the stars appear to rise in the east, and their rotation about a fixed northern star was noticed. Although the part of the sun was perfectly familiar, it was difficult to observe directly, whereas the night sky, with its pivotal point, could serve as a more accessible map to the experienced eye. The Greek writer on astronomy, Aratus, described the constellation of Ursa Minor, and adds that "by her guidance the men of Sidon (i.e. the Phoenicians) stear the straightest course." Ursa Minor contains the present Pole Star Polaris and its ancient counterpart Kochab.

The Britannica Micropaedia volume VIII (1974:76) provides even more detail about Polaris the Pole Star as follows:

> Polaris is actually a triple star, the brighter of two visual components being a spectroscopic binary with a period of about 30 years as well as a Cepheid variable with a period of about 4 days. Its changes in brightness are too slight to be detected with the naked eye. Apparent visual magnitude of the Polaris system as a whole (the mean of several observations) is 2.04.

Whitfield (1996:6) also quotes the famous Greek writer Homer to testify to the importance of the circumpolar stars, as follows:

> … the Great Bear which wheeling round

Looks ever towards Orion and
Dips not into the waters of the deep

4.3.3 Astro-navigation

However, astro-navigation is also dependent on meteorology offering the ancient systematic form of direction-findings by means of wind direction (cf Whitfield 1996:6). Whitfield (1996:6-7) makes the following important statement regarding wind directions (see Figure 7):

> The skilled Mediterranean seafarer could readily distinguish the cold north wind from the warm south wind, the blustery west from the cool, moist easterly. Eight wind directions were identified by name, and they may have been used on shipboard in the form of an inscribed eight-pointed star, the wind-rose, which thus functioned as a type of compass, based not on magnetic direction-finding but on the mariner's reading of the wind.

Whitfield (1996:7) again refers to a wellknown Greek writer namely Aristotle in his 'Meteorologia' for this wind system. However, Aristotle added two more wind directions i.e. the North-North-East and North-North-West to make a total of 10 wind directions. According to Whitfield (1996:7) this had the following consequences:

> Aristotle's model is effectively a diagram of the circular horizon, for he adds the solstitial points of sunrise and sunset. A century after Aristotle, Timosthenes of Rhodes designed a twelve-point-wind-rose in which the winds are named after the countries from which they blow.

By the third century B.C., the aforementioned wind-rose formed the basis of the earliest known written navigation aids which was called a pilot book or *Periplus*. This book listed a number of ports in different regions and indicated the courses to be steered between them expressed in terms of the directions of winds and the expected number of sailing days (cf Whitfield 1996:7).

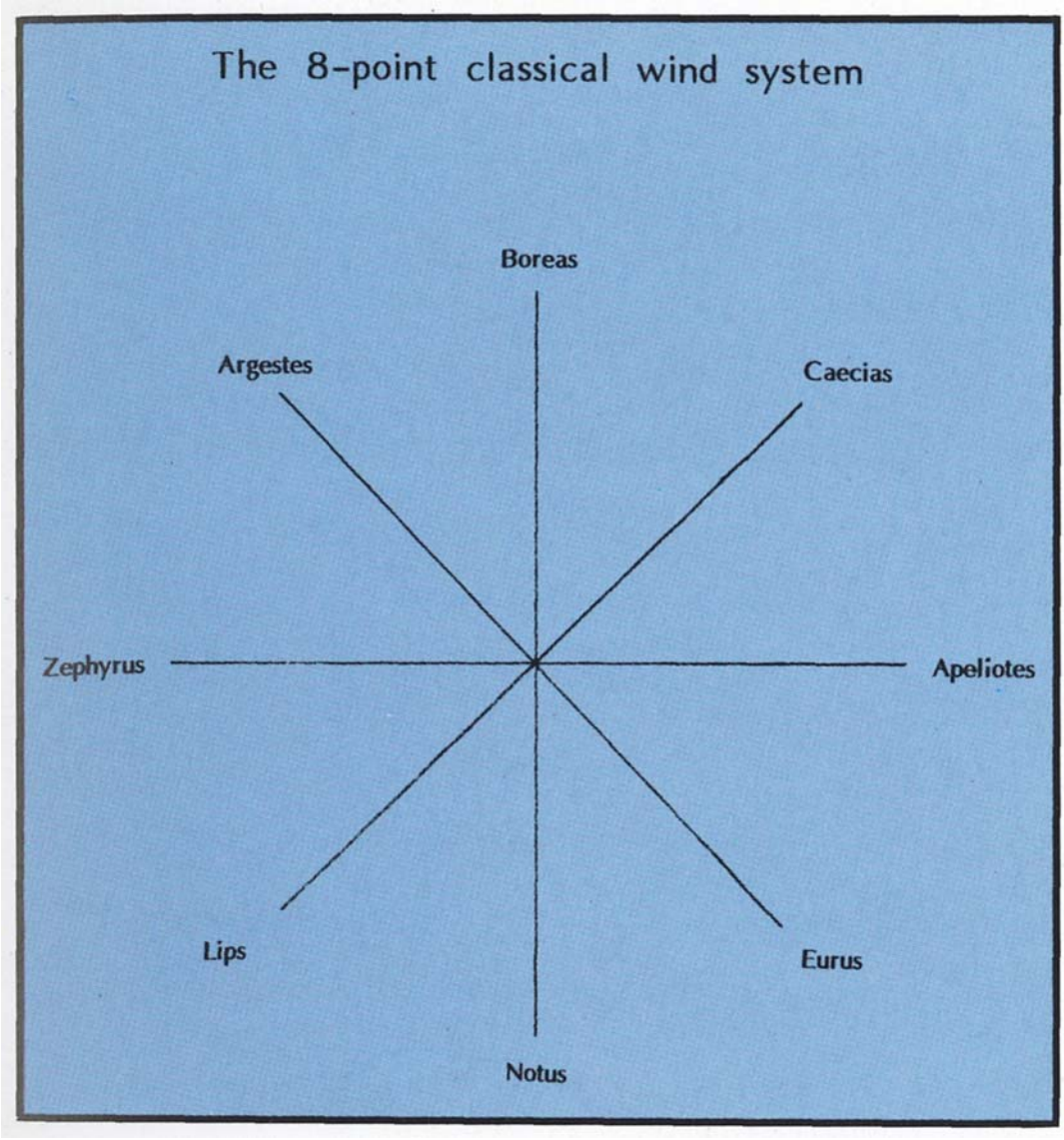

Figure 7.

Eight wind directions in eight pointed star.[9)]

[9)] Whitfield, P 1996. The Charting of the Oceans. Rohuert Park: Pomegranate.

4.3.4 Alexander the Great

During the era of Alexander the Great (who was a student of Aristotle), an important long distance sea voyage took place which proved the navigational abilities of ancient Greek mariners. Earlier Greek mariners had already made their trading mark in the Mediterranean arena. According to Bamm (1965:27), the Greek seafarers were in competition with the Phoenicians in the eastern area of the Mediterranean sea. In the western part of the Mediterranean sea, the Greeks were in competition with the merchants of Carthage. However, the Greeks had established colonies at Saguntum on the Spanish east cost. According to Bamm (1965:27) the Greeks had also founded in the 14th century B.C., a trading post at the mouth of the Loire river, but they were prevented by the forces of Carthage to pass through the strait of Gibraltar.

Ships played a vital role in the expansion of Alexander's empire. Vincent (1807:1) wrote in this regard:

> The voyage of Nearchus from the Indus to the Euphrates is the first event of general importance to mankind, in the history of navigation; and if we discover the comprehensive genius of Alexander in the conception of the design, the abilities of Nearchus in the execution of it are equally conspicuous.

By sending the fleet (consisting of more than 100 ships) of Nearchus from the Indus Valley to the Persian Gulf, it seems that Alexander the Great did not only wanted to use an alternative form of transport for his battle worn veterans. It is also possible that at the same time he wanted to emulate the voyage of Skylax of Karganda. According to Bamm (1965:151) the Persian King Darius I (cf Dan 5:31) had given Skylax orders to sail from the Indus Valley along the Persian coast westwards. Skylax missed the entry to the Persian Gulf and eventually ended his voyage at an Egyptian port on the Red Sea (cf Bamm 1965:151).

According to Bamm (1965:152) Alexander the Great wanted to utilize the voyage by Nearchus to introduce sea trade between the Indus Valley part of his empire via the Persian Gulf to East Africa. However, Alexander's death at a young age in Babylon prevented the introduction of such trade route during his reign.

According to Vincent (1807:37) the Roman historian Strabo said that the departure of Nearchus from Nicêa was in 327 B.C.:

> … a few days before the setting of the Pleiades; an expression obscure indeed, though precise. The ancients had two settings of their constellations, morning and evening, and accordingly Columella says, thirteenth or twelfth of the calends of November [that is, on the twentieth or twenty-first of October] the Pleiades begin to set at sun-rise, and a few lines after on the fifth of the calends of November, [the twenty-eight of October], the Pleiades set.

Not only was the departure date important with regard to the position of the stars for navigation, but also to take advantage of the monsoon winds.

4.4 MONSOON WINDS

Without oars and rowers, the early square-rigged sailing ships were unable to move against the winds. However, the wind systems in the Indian Ocean between the Ancient Near East, India and East Africa are not constant throughout the year. There is a North-East and a South-West monsoon (Figure 8). From November to May the North-East monsoon would have enabled the ancient mariners to sail from the Ancient Near-Asia down the East coast of Africa (cf Gayre of Gayre 1972:17). For the return journey, the South West monsoon during May to November would assist those mariners to return for the home journey. These changes in the wind system are explained by Montgomery (1992:28) as follows:

> The Indian Ocean is bounded in the north by Asian land mass and it is this principal difference from the Atlantic and Pacific Oceans that produces the special wind systems which made it friendly to the sailors of the great early civilisations.

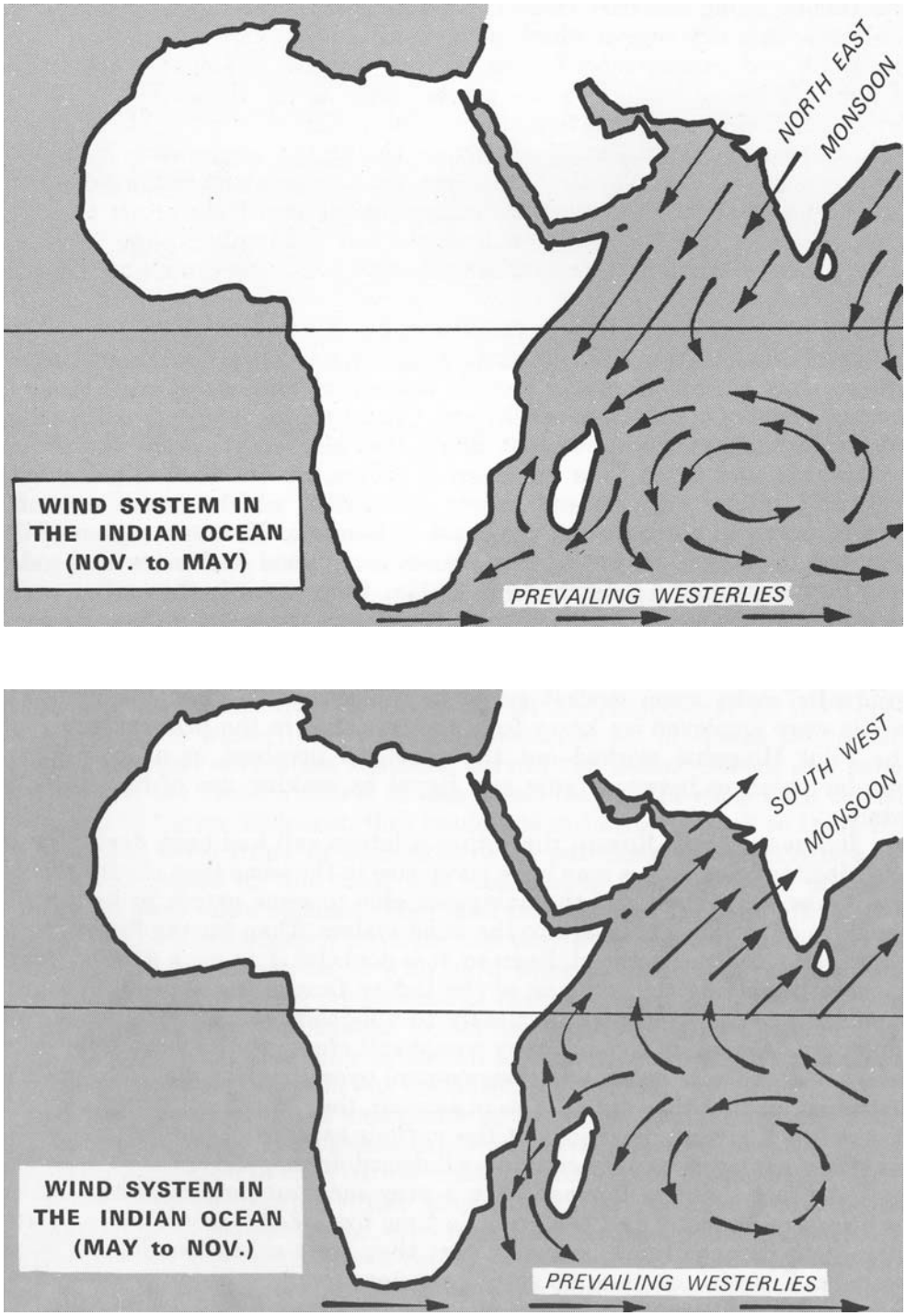

Figure 8.

Monsoon wind directions[10)]

[10)] Gayre of Gayre, R 1972. The origin of the Zimbabwean civilization. Salisburg: Galaxie.

Accordingly these regularly reversing monsoon wind conditions like a 'pendulum' (Montgomery 1992:28) provided for the regular sea traffic and trade between the Ancient Near East, India and Africa.

Vincent (1807:41) also refers to the impact of the changing monsoon wind on ancient seafarers:

> This wind, unknown in the Great Atlantic and Pacific Oceans, extends, with a variety of inclinations, through all the seas of India from Japan to Madagascar; its general course only is north-east and south-west; its particular deviations depend on the positions of mountains, capes and bays, which sometimes obstruct or direct its course; and near the coast it almost universally gives way to the land and sea breezes, which blow alternately every twenty four hours.

With regard to the sea voyage by Nearchus the following important observations regarding the north-east monsoon wind are made by Vincent (1807:42-43):

> It has been thought necessary to detail these circumstances, in order to shew that if Nearchus sailed, as he did, at the beginning of October, why it was necessary for him to wait twenty-four days in port, near Cape Monze, [Eirus, or Irus] till the Monsoon was settled in November; he had then every circumstance in his favour, an easterly wind setting along the coast, a land breeze to give him an offing, without danger of being carried out to sea, no fear of squalls or storms, and a current conspiring with all these advantages to ensure his success.

From the above, it is clear that all the climatic 'forces' i.e. winds, currents, etc. had to be taken into consideration by the ancient mariners in order to make a successful sea voyage. In this regard Vincent (1807:43) also mentions the use of pilots who were familiar with the relevant portions of the voyage.

On the other hand, Vincent (1807:45) also points out that the ancient mariners were acquainted with the nature and seasons of the Monsoon. In this regard he mentions the *Periplus of the Erythraean Sea* (published first century AD) as follows:

> … and that from the time of Claudius, the fleets which sailed from Egypt traversed the Indian ocean to the coast of Malabar, and returned from that coast again, by means of the Monsoons, without confining themselves any longer to the winding of the shore.

In navigation the ancient seafarers during the Old Testament era also had to take cognisance of distances or rather measures. Vincent (1807:52-54) discusses the stadium as such a measure of distance. However, there were four different lengths given for the stadium, but the discussion thereof falls outside the scope of this study.

However, the strong Agulhus stream along the eastern Southern African coast moving to Australia made it difficult for the ancient seafarers to travel southwards beyond Madagascar and return northward on homebound journeys (cf Britannica Macropaedia Volume I, 1974:149).

4.5 REED BOATS

Not only were wooden boats used by ancient mariners, but other materials were also used to construct seaworthy boats. As already mentioned (Chapter One), Isaiah 18:2 refers in this regard to reed boats from Ethiopia. The Scofield Reference Bible (1917) provides the following translation of this Biblical text:

> Woe to the land shadowing with wings, which is beyond the rivers of Ethiopia:
>
> That sendeth ambassadors by the sea, even in vessels of bulrushes upon the water, saying, Go, ye swift messengers, to a nation scattered and peeled, to a people terrible from their beginning hitherto; a nation meted out and trodden down, whose land the rivers have spoiled.

The translation of Isaiah 18:2 in the Jerusalem Bible (1968:996) mentions ‘papyrus skiffs’ in the Oracle against Cush (±780 BC). This translation illustrates that ‘papyrus’ was also known as ‘bulrushes’ during the relevant Old Testament period.

Doresse (1967:38) also discusses ancient Ethiopian reed boats and shows a photo of the 20th century use of such boats by fishermen on lake Zwai in

Ethiopia. According to Doresse (1967:38) these boats are made 'after an age-old traditional type.'

Doresse (1967:39) shows another photo of a reed boat which was used by the ancient Egyptians. The relevant photo depicts, according to Doresse (1967:39), the relief on a tomb of the VIth Dynasty at Saqqarah. The relief shows a small reed boat used by three Egyptian fishermen to catch fish with a forked trap.

Montgomery (1992:87) refers to other ancient nations making voyages to East Africa and in this regard quotes Ahmed Hamoud al-Maamiry as follows:

> The Omani Arabs were not the first visitors to the east coast of Africa. The Sumerians who lived in Iraq about 7000 years ago were the first people to make voyages on the open sea. The Assyrians also made sea voyages and it is quite possible that they reached the east coast of Africa where they left the witchcraft which is still being practised amongst the coastal people….. Another interesting connection between Assyrians and East Africa is the use of the sign of a horn called in Swahili, 'Siwa' in writings and sculptures to indicate strength and chieftainship.

Again this proves the longstanding ancient socio-economic relations between the Ancient Near East and East-Africa.

Montgomery (1992:120) describes the replicas (Figure 9) of the various ships displayed at the Museum in Lamu, Tanzania:

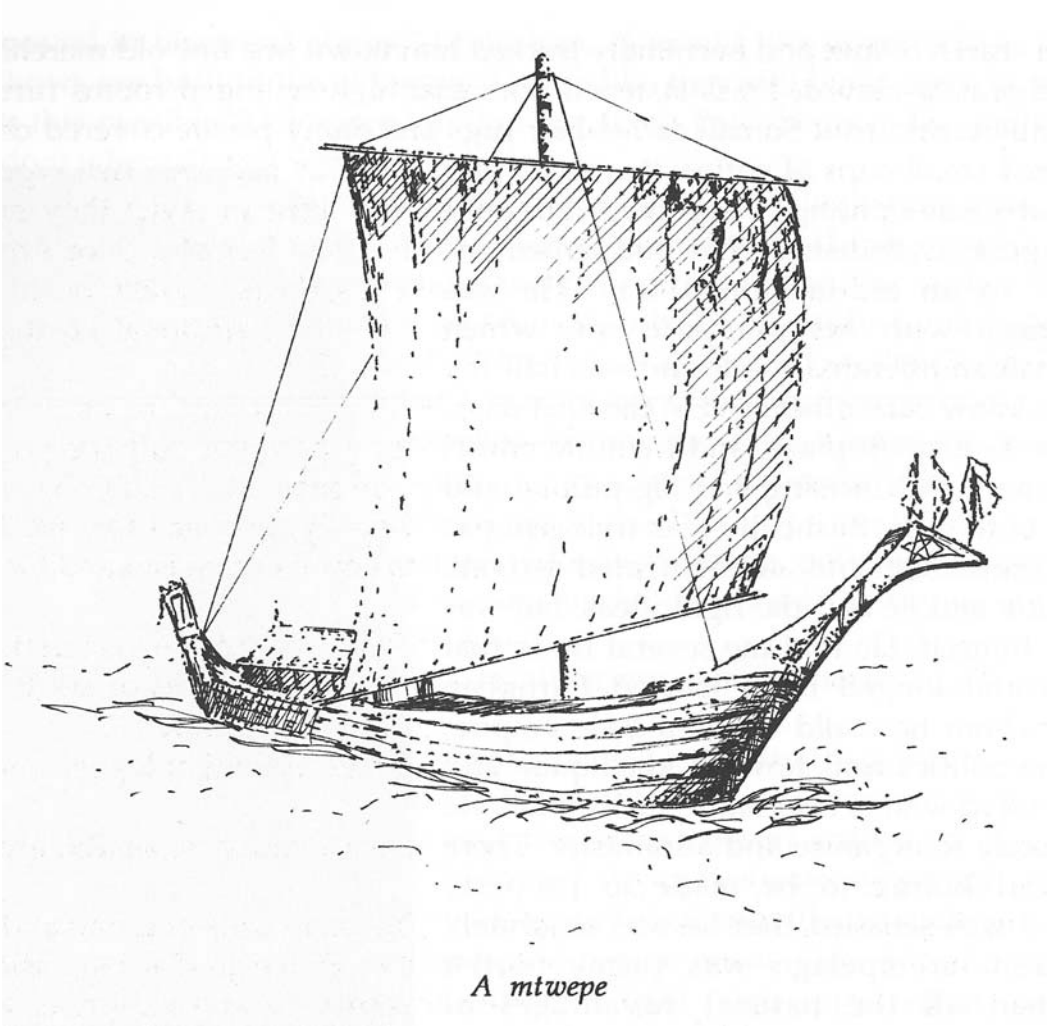

Figure 9.

Mtwepe, an ocean voyaging vessel showing a bow with bird design[11)]

[11)] Montgomery, D 1992. The two shores of the Ocean. Hanley Swan: Malvern.

> There were three local types apart from the range of trans-oceanic visitors from the Yemen, Persian Gulf and India. The *mtwepe* was a large vessel, capable of ocean voyaging, with sharp bow and stern and a simple square sail hoisted on a single mast. It was the direct descendent of the sewn ships of south Arabia of 2000 years ago, when planks were attached to the ship's frame and to each other not by nails or wooden fastenings but by handspun coconut fibre rope. The traditional *mtwepe*, interestingly, did not have dolphins or birds for a figure-head but sported a large stylised camel's head. They were not 'ships-of-the-desert' but 'camels-of-the-sea'; clear suggestion that the first people to build them, Sabaeans about 3000 years ago probably, were desert dwellers and overland caravan traders who took to the ocean. What excited me particularly was the fact that mtwepes were still being built in Lamu in the early 20th century, as the old photographs showed.

However, it was the wellknown Norwegian explorer and mariner Thor Heyerdahl who provided evidence that reed boats could be successfully used to travel across the Atlantic as well as the Indian oceans. His travels and explorations will be discussed in the next section of this chapter.

4.5.1 A Reed Boat named 'Tigris'

Thor Heyerdahl constructed a reed boat named 'Tigris' which was based on the Sumerian reed boat design in order to prove that such boats were seaworthy and could travel over long distances. Heyerdahl had previously already crossed the Atlantic Ocean from Morocco to the Caribbean islands in a reed boat. This boat was known as 'Ra II' and it was constructed from reeds grown near lake Tana in the Ethiopian highlands. 'Ra II' was designed according to illustrations found in ancient Egyptian monuments (Heyerdahl 1980:166). I recently (July 2005) visited the Kon-Tiki museum in Oslo where the original 'Ra II' is on display (Figure 10).

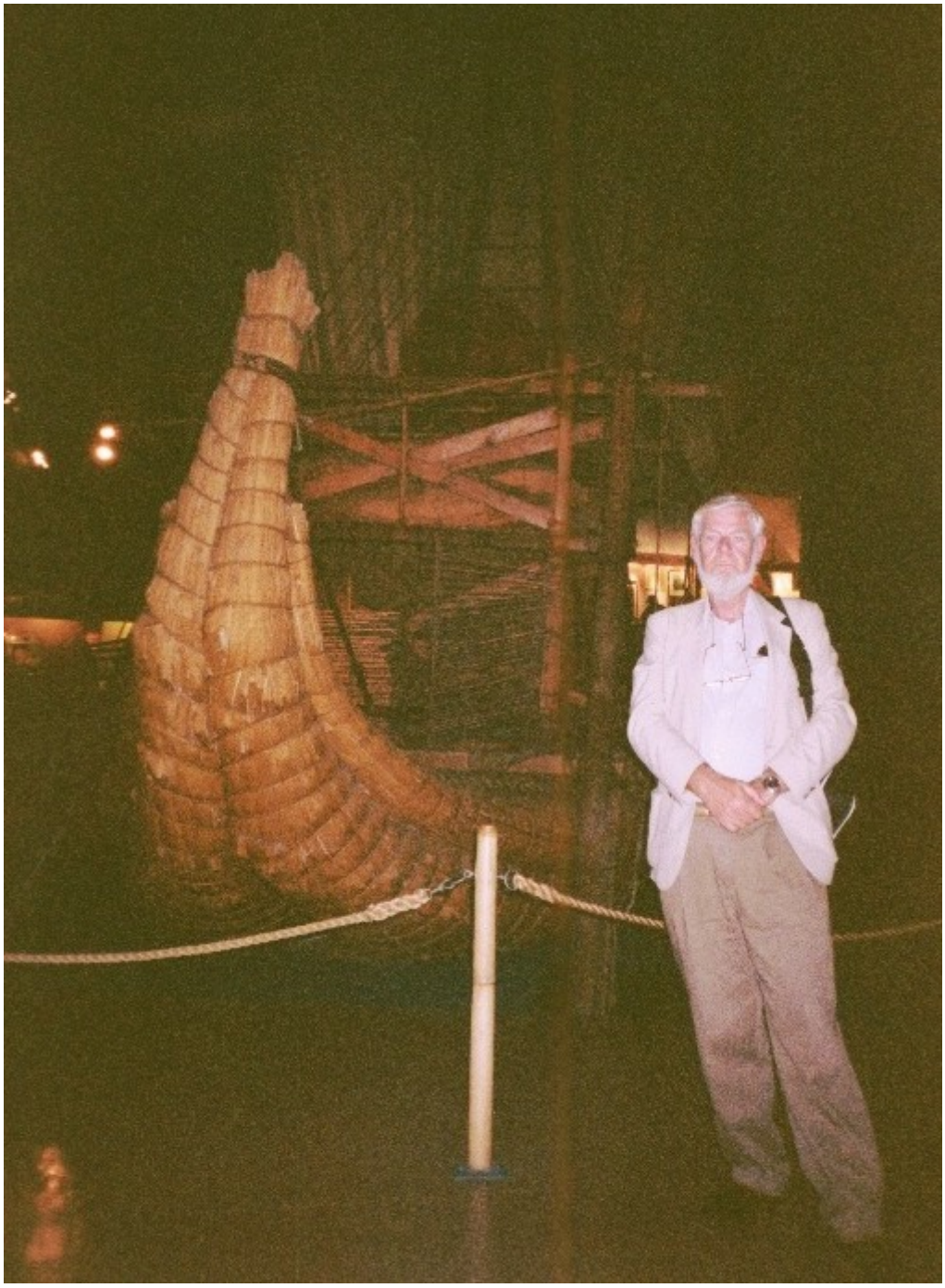

Figure 10.

Dr E van Dijk next to the bow of the 'RA II' in the Kon-Tiki museum in Oslo, Norway[12)]

[12)] Photo Delia.

Before embarking on his 'Ra' expeditions, Heyerdahl (1980:267) had done intensive research on reed boats:

> Papyrus must have been known in Corfu at one time, where fishermen made bulrush-boats until recently and called them *papyrella*. It has survived since antiquity on the island of Sicily, while reed-boats (but no papyrus) have survived on nearby Sardinia. It was brought by early seafarers beyond Gibraltar and planted on the Canary Islands, where Romans to their surprise found papyrus growing in the rivers. Who brought root-stocks of this difficult fresh-water plant to those far Atlantic Islands is not known, but the Phoenicians were there. They left reed-ship designs on one of their most beautiful vases recently found on the ocean floor of their former Atlantic port of Cadiz in Spain, but no papyrus. At the former Phoenician port of Lixus on the Atlantic coast of Morocco, the Berbers built reed-boats until recently, but of an inferior river-grass through local lack of papyrus. Papyrus on the Canary Islands has long since disappeared, and when the medieval Portuguese rediscovered the islands a couple of millennia after the Phoenicians, the blond guanche islanders did not know how to build watercraft of any material whatever, though they made plank coffins for their mummies and practised cranial trepanation and other arts that clearly revealed their former contact with sailors from the far corner of the Mediterranean. And together with fragments of tripod vases of Phoenician origin, archaeologists have found terracotta seals in distinguishable in type and decor from specific Mesopotanian seals: they are on exhibition in the Gran Canaria Museum together with a selection of typical Mexican terracotta seals to show their striking similarity.

The 'Tigris' based on the Sumerian design, was constructed from reeds found near the ancient and Biblical Ur (near modern Basra) also known as Qurna. The 'Tigris' was constructed with the help of Peruvian boat builders who were used to constructing reed boats in their home country. They had previously assisted Heyerdahl with the construction of 'Ra II' (Heyerdahl 1970:324) (Figure 10). The 'Tigris' was launched on 11 November 1977 where the Tigris and Euphratus rivers meet before entering the Persian Gulf. It was where the Sumerians built up the world's known civilisation. The 'Tigris' was 60 feet long (nearly 20 metres) and the hull was constructed of reed, locally known as *berdi* (cf Heyerdahl 1980:36).

Very special hand-woven reed mats, as long as the entire ship, were folded around each half of the twin-bodied ship like the tight skin of a sausage. The reeds in these mats all pointed in one way and not a single reed end

would point outwards. In this regard Heyerdahl (1980:57) mentions that this technique was important for two reasons: 'to increase the speed of the ship through the water and to decrease absorption.'

It was a difficult decision whether or not to use asphalt to cover the outside of the hull of the 'Tigris'. Heyerdahl (1980:57) was reminded by local clergymen in Iraq of Exodus 2:3 describing how the mother of Moses put her baby in an ark of bulrushes and covered it with 'slime and with pitch …'. Heyerdahl (1980:57) consequently decided to test two twelve-foot test bundles of reed. One was coated with an estimated sixty kilograms of black bitumen and the other one not. Both bundles were submerged in water for six weeks. The end result was that a decision was taken not to coat the hull in asphalt thereby also saving considerable weight (cf Heyerdahl 1980:65).

4.5.2 Dhow-type sails

Meanwhile sailmakers were required for preparing the special dhow-type sail which looked like an ancient Egyptian sail set at a slant (cf Heyerdahl 1980:59). Eventually Heyerdahl (1980:64) had to rely on some of his own crew members to fabricate a temporary sail in the hope of finding real Arab sailmakers in Bahrain.

Once the 'Tigris' had been launched, the colourful sail had to be hoisted. Heyerdahl (1980:73) describes this process as follows:

> As on all reed sailing vessels of the Old and New World the yardarm holding the sail had to be hoisted on a double mast with its straddling legs resting one on each of the bundles. There was no hold for a mast along the centre line where the thick bundles barely met, so the thirty-three-foot ark masts were set into large wooden 'shoes' lashed on top of the bundles. Masts and shoes were held together by wooden 'knees' made from branches naturally curved at right angles. Such small but important details were copied from Egyptian frescoes and tomb models.

In August 2004, I have seen a similar sail hoisting process which took place on an old wooden cargo dhow outside the harbour of Zanzibar. Six sailors were required to hoist the large sail on that dhow.

4.5.3 Stamp seals

For many centuries stamp seals have been used to certify and identify ownership on documents and cargoes. These seals are also valuable artefacts for archaeologists.

This applies to archaeological excavations all over the world. For example, according to Stern (2000:120) there is no doubt that there was also maritime cooperation between Ahab's Israel and the Phoenicians in which the harbour of Dor played a vital role. In this regard Stern (2000:120-121) refers to confirmation of such maritime cooperation in the form of a Hebrew seal inscribed 'Oniyahu son of Meirab'. Stern (2000:120-121) discusses the relevance of this seal as follows:

> The most interesting part of the seal is its upper register, which depicts an entire ship. This is the first known representation of a ship on a Hebrew seal of the first Temple period and also the first of its kind on any engraved Israelite object Avigad writes: "The engraver of this seal unquestionably intended depicting a real ship and not just an abstract model." There is indeed a close resemblance between the ship shown on this seal and the contemporary Phoenician ships in Assyrian reliefs. Avigad concludes that this superb seal represents an Israelite-Phoenician ship, perhaps of the "Tarshish" [sic] type, whose home port may have been Dor. The ship on the seal seems to have served as the emblem of a family of sailors; the name of the seal's owner Oniyahu [the word for ship is *oniyah* in Hebrew], may also hint at this.

Stamp seals were also important for Heyerdahl (1980:102) in his research on ancient sea traffic.

The first stop of the 'Tigris' was the island Failaka just off the coast of Kuwait. This island was named Ikaros by Alexander the Great when the Greek sailing vessels, built in the distant Indus Valley, arrived at this island in about 325 B.C. (cf Heyerdahl 1980:100).

4.5.3.1 Seals of Sumerian Origin

On a previous visit to Kuwait, Heyerdahl was shown in the Kuwait Museum a stamp seal such as those which had been used in Sumerian and

Babylonian times to identify the origin and seal the cargoes of merchant ships. This specific seal had a motif on it that excited Heyerdahl (1980:102-103): 'A ship! A sickle-shaped ship with mast and with crosswise hatching along its curved body to illustrate rope lashings of a reed-boat just like ours.' According to Heyerdahl (1980:103) this seal provides proof that Failaka as an ancient shipping centre also had early contact with ancient Egypt. This meant therefore important evidence of long-range navigation, to destinations such as Africa.

Another four seals of Sumerian origin and displayed in the Kuwait Museum also clearly depicted ships. In this regard Heyerdahl (1980:103) describes their motifs as follows:

> All were sickle-shaped reed-ships with masts. One had a figure seated eastern, hoisting or holding the halyard to a big, matted sail. His rope ran through the mast top. Another showed two figures standing, one on either side of the mast, each grasping the lower edge of a reefed sail above their heads. All five ships were engraved on stamp seals from about 2500 B.C.

4.5.4 Egyptian Reed Boats

The aforementioned design of reed boats had previously puzzled Heyerdahl (1980:105) during a research visit to Egypt. Then he had visited a desert area between the Nile and the Red Sea. In the desert wadis on rock walls, he discovered pictures of a great number of ships. Heyerdahl (1980:106) describes these ships as follows:

> Some were propelled by rows of oars, others by mast and sail. As could be expected from pre-dynastic art, all represented strongly sickle-shaped reed-boats. The size of some must have been quite formidable, since anything from twenty to forty oars were common, and a few were shown with a crew of fifty or more on deck. Many had two cabins, one on either side of the mast. A few carried horned cattle or other large animals on board, which were dwarfed in proportion to the big vessel transporting them.

Heyerdahl (1980:107) points out that the distance to the Red Sea from the relevant wadis where he found the Egyptian petroglyphs is short, and would even be shorter during ancient times. In this regard Heyerdahl (1980:107) writes:

> The wadis might even have been rivers running from the forests to the Red Sea; land lifting, linked with the Rift Valley movements is fully possible here. The sea-going curves of these pre-dynastic boats were indisputable. With bow and stern elegantly swung high, as on our Tigris and often much more so, they bore clear evidence of a maritime background.

Accordingly Heyerdahl's research provided adequate proof on ancient shipping at a number of sites in Arabia as well as Africa.

4.5.5 Ancient Entrepôt Harbours

Heyerdahl (1980:124) also refers to the role of ancient entrepôt harbours which handled the trading of goods between various parts of the world. Like the modern Rotterdam in the Netherlands, it was Telnum (also known as Dilmun) in today's Bahrain that handled large volumes of merchandise during ancient times. In this regard Heyerdahl (1980:124) refers to an article by Oppenheim (1954:6-17) a noted authority on Sumerian culture and quotes him as follows:

> Since Telmun was only a market place, two possibilities have to be envisaged: the ivory obtained there by the traders of Ur could have come either from Egypt – through some unknown commercial channel – or from India brought across the Indian Ocean on boats sailing with the monsoon. In favour of the second alternative speak the well established links between southern Mesopotamia – especially Ur itself – and the civilization of the Indus Valley. The discovery of Indian seals …. and of specially treated carnelian beads … in Mesopotamian excavations has proven beyond any doubt the existence of such trade relations.

In discussions with Bibby, the archaeologist (who was excavating the ruins of Dilmun) Heyerdahl (1980:142-143) raised the question of where the origins of copper and ivory could have been. Bibby expressed the opinion that the nearest source of copper for the ancients would have been Oman. However, for ivory there were according to Bibby two alternative sources namely either India or Africa.

With regard to the Sumerians who lived five thousand years ago, it would be foolish for us in the 21st millennium to underestimate the technical progress of their civilisation. According to Heyerdahl (1980:149) the Sumerians were not illiterate:

> From them we learnt to write. They were not stupid. From them we got the wheel, the art of forging metals, of building arches, of weaving cloth of hoisting sail, of sowing our fields and baking our bread. They gave us our domesticated animals. They invented units for weight, length, area, volume and instruments to measure it all. They initiated real mathematics, made exact astronomical observations, keep track of time, devised a calendar system and recorded genealogies. When spoken of Dilmun, Makan and Meluhha they knew where these places were; they were well at home in geography. How else could they know where to travel to locate copper, gold, lapis, lazuli, carnelian, alabaster and the great many other materials precious to them, unknown locally and yet firmly embedded in their material culture?

All the abovementioned skills of the Sumerians were also diffused to other regions in the Ancient Near East. The Britannica Micropaedia Volume VI (1974:819) describes this Sumerian impact as follows:

> One of the earliest centres of civilized life, Mesopotamia has a history going back to the Sumerians, who developed an urban society in the southern part of the country early in the 3rd millennium BC. In the later 3rd millennium, empires were established by the dynasty of Akkad and the 3rd dynasty of Ur. These were succeeded by the Old Babylonian Empire [2017-1794 BC], the Assyrian Empire [*c.* 110-612 BC], and the Neo-Babylonian Empire [6th century BC], which spread Mesopotamian influence throughout the Near East.

The Sumerians also established socio-economic relations with the people of the Indus Valley.

4.5.6 Indus Valley

When a few weeks later, the 'Tigris' arrived in the Indus Valley, Heyerdahl (1980:256-261) was again reminded of the vast civilisations that had existed between four and five thousand years ago. Mooring the 'Tigris' in Karachi (Pakistan) he travelled 350 miles to the ancient site of Mohenjo-Daro meaning the 'Mound of the Dead'. There he was also shown inscribed seals similar to those that had found their way to ancient trading partners in Mesopotamia and the gulf islands of Failaka and Bahrain. According to Heyerdahl (1980:262-263) the archaeological excavations in the Indus Valley (as those in Mesopotamia and Egypt) have far exhausted the surprises in store for those who still seem to think that history began with Columbus or maybe the early Greeks and Romans.

Returning to the subject of the ports of the Indus Valley, Heyerdahl (1980:263-264) refers to S.R. Rao, a wellknown Indian archaeologist who described Lothal on the Indian Ocean. This prehistoric port possessed a well designed large brick built dock basin built about around 2300 B.C. The dock basin is about 709 feet long and about 122 feet wide, designed to take ships about 59 to 65 feet long and 13 to nearly 20 feet wide. According to Rao, two ships could pass each other through the forty feet wide inlet gap in the embankment. In this regard Heyerdahl (1980:264) quotes Rao as follows:

> The high degree of engineering skill achieved by the Lothal folk can be understood from the ingenious way in which they could regulate the flow of water into the dock at high and low tides. They could ensure flotation of ships in the basin by sliding a door in the vertical grooves of the flanking walls of the spillway at low water. Excess water was allowed to escape by keeping the spillway open at high water. In no other part of the Bronze Age, early or late, has an artificial dock with water-locking arrangements been found. In fact, in India itself, hydraulic engineering made no further progress in post-Harappan times.

According to Heyerdahl (1980:264) Rao had found much evidence to show that maritime trade had existed between the Indus Valley and Sumeria. This evidence consisted *inter alia* of eight gold pendants similar to those discovered in the Royal Cemetery at Ur.

I am of the opinion that this interaction between the relevant ancient seafaring nations also had an impact on trade between the Ancient Near East and Africa.

4.5.7 Africa

From the Indus Valley, the ‘Tigris’ continued her journey (see Figure 11) on the longest leg to the island Socatra which is part of modern Yemen. Eventually after nearly three months at sea, the ‘Tigris’ reached Africa. However, the arrival happened in the midst of one of Africa’s frequent civil wars. Somalia was in turmoil and the ‘Tigris’ anchored off Djibouti.

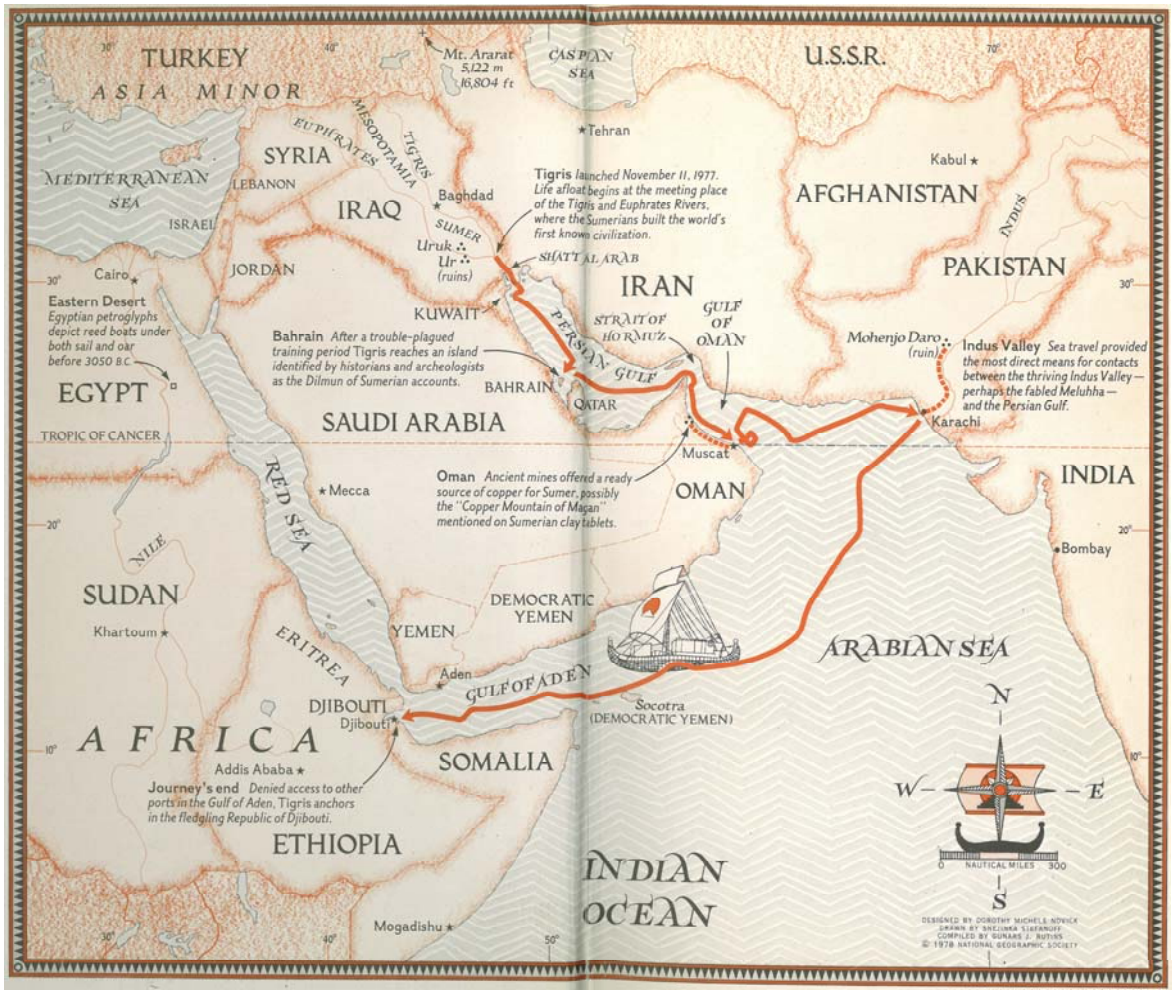

Figure 11.

Map of the Route of the 'Tigris'[13)]

[13)] Heyerdahl, T 1980. The Tigris Expedition. London: George Allen & Unwin.

In a letter to Kurt Waldheim, UN Secretary General at that time, Heyerdahl (1980:324-325) and his crew expressed their success as follows:

> We have shown that the ancient people in Mesopotamia, the Indus Valley and Egypt could have built man's earliest civilisations through the benefit of mutual contact with the primitive vessels at their disposal five thousand years ago. Culture arose through intelligent and profitable exchange of thoughts and product.

In the same letter to Waldheim, the burning of their own ship (Figure 12) by the crew was announced in a protest which Heyerdahl (1980:325) described as follows:

> Today we burn our proud ship with sails up and rigging and vessel in perfect shape to protest against the inhuman elements in the world of 1978 to which we have come back as we reach land from the open sea. We are forced to stop at the entrance to the Red Sea. Surrounded by military aeroplanes and warships from the world's most civilised and developed nations we are denied permission by friendly governments for security reasons, to land anywhere but in the tiny and still neutral republic of Djibouti, because elsewhere around us brothers and neighbours are engaged in homicide with means available to them by those who lead humanity on our joint road into the third millennium.

4.5.8 Doubts about Large Ancient Trade in Indian Ocean

Some writers express doubts about large volumes of sea trade within the Indian Ocean basin before the first millennium B.C. For example Toussaint (1966:18) expresses these doubts as follows:

> From all that has been said, we may conclude that before the first millennium BC, the only really noteworthy expeditions in the Indian Ocean were the Egyptians' voyages to Punt. It is clear that the ocean did not play a great part at the beginning of the first known civilisations, those of Egypt, Sumer, and Mohenjo-Daro, and that these three civilations were above all continental in nature. It was the Phoenicians, a people foreign to the Indian Ocean, a people from the Mediterranean, who were to give, for the first time some width of scope to the hitherto modest maritime exchanges between the principal countries of the ocean.

However, it seems that, in fact, ancient trade did take place in the Indian Ocean before the first millennium B.C.

Figure 12.

Dr E van Dijk in front of 'Tigris' display including a photo of its burning by the crew[14)]

[14)] Photo Delia.

4.6 SUMMARY

The abovementioned analysis and discussion of the ship design and navigational abilities of the ancient mariners explained that it was possible for them to make successful journeys between the Ancient Near East and the East African coast. Accordingly I have to agree with the following statement by Gayre of Gayre (1972: 22-23):

> The facts that we have received make it clear that the Indian Ocean was not a *mare incognitum* to the ancient civilised peoples of Europe and Asia and that they had the technical ability to exploit the raw materials of its coastlands. It is essential to grasp these facts. It is because they have not been fully realised in the past, and because we have been obsessed with European-orientated thinking of the opening up of a 'Dark Continent' by European missionaries and explorers, coming from the west, that we have failed to realise that Africa was not a Dark Continent to the civilised peoples of antiquity.

In the next chapter, the migration of peoples from the Ancient Near East to East Africa will be analysed and critically (albeit objective) as far as possible evaluated and discussed.

CHAPTER FIVE

MIGRATION FROM THE ANCIENT NEAR EAST TO AFRICA

5.1 INTRODUCTION

In addition to economic activities such as mining and commerce, socio-economic relations also developed between ancient trading partners. Such developments also included the migration of peoples from one region to another. These migrations had positive as well as negative impacts on the indigenous people of the affected regions.

In this chapter specific attention will be given to the migration of people from the Ancient Near East to East Africa. In this regard the movement of Semitic people to East Africa and especially Ethiopia from *inter alia* Saba will be discussed. These movements during the Old Testament era will be analysed and evaluated in the socio-economic context.

Although falling mainly outside the scope of this study, it seems appropriate to also pay attention to the influence of the Ancient Near East on East Africa south of the Equator. In this regard the migration of Arabs from south Arabia to southern Africa will be discussed. However, I will refrain in this regard from giving opinions on the various theories in the relevant sources.

5.2 MIGRATION BETWEEN SABA AND EAST AFRICA

According to Doresse (1967:13-14) the Ethiopian version (in the *Kebra-Nagast*) of the meeting between King Solomon and the Queen of Sheba, the latter was Makeda who ruled over the Tigre region in Ethiopia. Her emissaries journeyed and negotiated on her behalf as far as Egypt and India (cf Doresse 1967:14).

5.2.1 Saba and Ethiopia

Between 1000 and 400 B.C. Ethiopia had an influx of people who were of Semitic origin[15)]. According to Doresse (1967:21) they came mostly from tribes of the Sabaean, Minoan and Homerite kingdoms of Arabia Felix as the ancients called that part of the Ancient Near East. According to a report of the Embassy of the Republic of Yemen in Canada (1996:13) Arabia Felix held the monopoly for frankincense and myrrh during ancient times. These two resins were only growing in the Hadramout. The trading route led from southern Arabia to Ghaza in Palestine roughly parallel to the Red Sea and covering a distance of ±3400km. In its relevant report the Embassy of the Republic of Yemen in Canada (1996:12), the high demand for frankincense and myrrh in Babylon, Egypt and Jerusalem explains the 'historical background to the report about the Queen of Sheba's (Saba) caravan journey to Jerusalem'. Saba existed between 1000 and 450 B.C. and was in constant conflict with its neighbours, the kingdoms of Hadramout, Ausan, Qataban and Maeen. However, economically Saba gained wealth also as a result of the Ma'rib dam which brought about the cultivation of the surrounding lands by means of a highly developed system of canals and aquaducts. From time to time the Ma'rib dam walls had to be raised due to the silting of the dam and the dam walls were also pierced. Its final collapse occurred in 600 A.D. and according to the aforementioned Embassy of the Republic of Yemen in Canada (1996:13) this event became 'the turning point of history', because the ancient Sabaean state literally lost its main economic footing.

Doresse (1967:21) points out that the immigrants from Saba had 'indeed founded prosperous cities on the fertile plateaux of Yemen and by dint of great ingenuity in the building of dykes and aqueducts had promoted the cultivation of incense-trees and spices.' Dams and aqueducts were especially common near Ma'rib, the capital of Saba. According to

[15)] However, according to other researchers (Best and de Blij 1977:65) the immigration wave only took place during the first century B.C. According to Best and De Blij (1977:65) the Yemen Arabs were the founders of Axum and later extended their authority over the northern half of present day Ethiopia and eastern Sudan.

Hämäläinen (1991:179) a great dam was built in the 8th century B.C. at Ma'rib (at that time called Manyab'). However, over the years silting caused the raising of the dam wall until its height reached 16 metres in the middle of the wadi at Ma'rib.

As a result of economic mishaps, the migration of people could also be stimulated. Especially in this case of a broken dam wall where a large part of the population could have been dependent on irrigated agriculture, the relevant farming community could have been forced to move to alternative pastures. This could have resulted in migrating literally overseas. I experienced a similar economic situation when fifty years ago in 1956 my parents decided to emigrate from the Netherlands to Cape Town in South Africa. Thousands of European immigrants arrived from western Europe during the 1950s and 1960s in South Africa where employment opportunities abounded.

5.2.2 Emigration to Ethiopia

The plateaux of the Tigre region in Ethiopia were therefore similar to those the Semitic immigrants had left behind in their native lands. The most important group of immigrants from Yemen were the Habashat and the Aguezat who settled in the north of Ethiopia (cf Doresse 1967:21). Pakenham (1959:8) refers to the Sabaean immigration to Ethiopia as follows:

> In real life the Sabaeans were one of the powerful Semitic tribes who formed an overseas colony – theirs a kind of new Sheba – on the west side of the Red Sea. Here in a green tableland intersected with canyons, similar in scenery and climate to their homeland, they settled in what is today northern Ethiopia and Eritrea.

In their assimilation process with the local inhabitants these newcomers brought about a cultural transformation. In this regard Doresse (1967:21) mentions religion, a more highly developed social organisation, architecture and art as well as a writing system. In terms of religion little is known

except it replaced the worship of trees and water, the serpent-king and an assortment of sacred totems (cf Doresse 1967:21).

5.3 SIMILARITIES BETWEEN RELIGION AND LANGUAGE IN SABA AND ETHIOPIA

5.3.1 Sabaean Deities

According to Doresse (1967:21) there is enough evidence (represented by a few monuments and votive inscriptions) that the religious beliefs of the newcomers showed similarities to the cult-practices of Southern Arabia.

The main deities worshipped by the Arabian immigrants were the Sun, Moon and Venus, 'the heavenly triad' (cf Doresse 1967:21). According to Doresse (1967:21) the oldest temples of Tigre in Ethiopia bear the names of sacred sites in Arabia dedicated to these gods. For example, Sin the Moon god and Ashtar, the planet Venus were worshipped at Yeha (cf Doresse 1967:21).

In this regard there are also similarities between the religious practices of the Sabaean immigrants in Ethiopia and the ancient religious practices of Ma'rib. According to Hämäläinen (1991:181-182) a few kilometres south-southwest of old Ma'rib, one can find the ruins of Sabaean temples. The five pillars of the Temple of the Moon are still standing. There is also a broken south pillar which local people call 'Arsh Bilqis', or the Throne of Bilqis which is the Yemeni name for the Queen of Sheba (cf Hämäläinen 1991:182).

In the same area of Ma'rib there is also the Sun temple known as Mahram Bilqis. The word Mahram means Temple of Refuge which according to Hämäläinen (1991:183) indicates that it was not an ordinary temple, but a place where persecuted people could take refuge. This reminds one of Exodus 21:12-14 where Yahweh instituted the ruling that those accused of manslaughter could find refuge at His horned altar. De Vaux (1990:160-

163) discusses this Old Testament concept of refuge and also the relevant cities where refuge could be found, in more detail.

The Temple of Refuge near Ma'rib was partly excavated by American archaeologists between 1950 and 1952 before they were chased away by hostile tribesmen. Since then the desert has reclaimed most of this temple except the aforementioned pillars. It is ironic that I had to cancel my own planned visit in 2005 to Sana, the capital of Yemen due to the hostile environment in that city. I had planned to fly from Dar es Salaam to Sana in order to visit the nearby temple. The temple has an oval form and is surrounded by a wall of nine metres high and four metres thick (cf Hämäläinen 1991:183). These architectural features will be compared below with the design of the Great temple at the ruins of Great Zimbabwe (cf 5.4.3.2).

5.3.2 Written Language in Ancient Ethiopia

However, the main contribution by the Arabian immigrants to Ethiopia was their introduction of the written language (cf Doresse 1967:25). In this regard, Doresse (1967:25) makes the following important statement:

> Up to the beginning of the Christian era or thereabouts inscriptions on stone were in Sabaean or Minaean [sic] dialects written in the elegant South-Arabian form, using consonants only.

This writing system is closely related to the Phoenician style from which, as mentioned before, the Greek alphabet was derived (cf Doresse 1967:25; 3.3).

5.4 THE ROLE OF JEWISH MIGRANTS IN YEMEN

The role of the Jewish community in Yemen also has an impact on this study. At the beginning of the 19th century A.D. there was according to Grayzel (1948:735) 'a pious Jewish population' living in Yemen. Their ancestors had been there for many centuries. Grayzel (1948:735) points out that the first 'Hebrews' arrived in the days of the Prophet Jeremiah, 'just

before the destruction of the First Temple. Even when Ezra invited them back to Judea and assist with the rebuilding of Jerusalem, the Yemeni Jews refused' (cf Grayzel 1948:735).

On possible Jewish settlement in Yemen, Le Roux (2003a:33) refers as follows to Goitein (1969:226):

> Goitein makes it clear that no historical record of such settlement has been found thus far, but their presence is attested for in the centuries immediately preceding Islam by Islamic and Christian sources, as well as by local inscriptions in the Himyarite language. These sources bear witness that the "Jews" in Yemen were in close contact with their co-religionists in Palestine and that they proselytised vigorously in their adopted country. Goitein stresses that the flourishing Christian elements in Yemen disappeared under Islamic rule, but Judaism stood firm throughout the history of that country.

Most of the Yemenite Jews were hard-working people (cf Wurmbrand and Roth 1966:251). Grayzel (1948:735-736) concurs with this and says that these Jews were mostly artisans and had a 'practical monopoly of manual labor [sic]…'

However, no specific geographical locations, regions or areas in Yemen are mentioned by the relevant authors.

5.4.1 Jews in Ethiopia

Although I could find no evidence, I do presume that some of the Yemenite Jews could also have emigrated from Yemen to Ethiopia with the Arab emigrants. However, for the origin of the Jews in Ethiopia (who became known as Falashas) one has to dig deeper in the history of Ethiopia. Doresse (1967:13) emphasizes that Ethiopia is steeped in 'impressive Biblical tradition'. Firstly Doresse (1967:13) refers to 1 Kings 10 where the visit of the Queen of Sheba to King Solomon in Jerusalem is described. According to Ethiopian history, King Solomon gave the Queen of Sheba a son who under the name Menelik, became the first Emperor of Ethiopia (cf Doresse 1967:15). The official version of this tradition appears in the

Kebra-Nagast also known as the 'Glory of the Kings' which dates from the 14th century A.D. (cf Doresse 1967:15).

Pakenham (1959:11) refers to the relevant Biblical connection and the ancient Ehiopian tradition as follows:

> In the Ethiopian version of the biblical [sic], the Queen of Sheba, alias Queen Makeda, leaves Axum to pay her respects to King Solomon in Israel. She sleeps with the king [he tricks her into surrender] and returns to Axum pregnant with a son, who becomes Menelik I, the founder of the socalled "Solomonic" line of emperors, culminating in the present Emperor, Haile Selassie.

It should be noted that Emperor, Haile Selassie, was disposed in the late 1980s by a communist regime under the leadership of general Mengistu. However, Mengistu was himself disposed of his presidency and he found a safe haven in exile in Zimbabwe under another African dictator, president Robert Mugabe.

However, to return to the mixing of Semitic blood with Negroid genes in ancient Ethiopia, the following quote from Gayre of Gayre (1966:100) is of importance in the context of this part of the study:

> In the process of time a further back-cross occurred with the Caucasoids when Semites from the Yemen, the land of Sheba, conquered Ethiopia and imposed another Caucasoid strain [mainly Mediterranean but with some Nordic elements] on the upper classes. The result of this is that actual cases of more or less pure White Europeans are not infrequent – the Caucasoid characters have segregated out in the course of inbreeding.

This 'inbreeding' is however, an anthropological issue which falls mainly outside the scope of this study.

5.4.2 Israelites in Egypt

However, for the purpose of this study, I rather wish to take into consideration the Jewish mercenaries who were employed by the Babylonians to guard the southern Egyptian borders (cf Grayzel 1948:733). Grayzel (1948:34) says that it was around 600 B.C. that it happened that

the Babylonian conquerors of Egypt needed soldiers to protect the southern frontier of Egypt against attacks by the Ethiopians. In this regard Grayzel (1948:34) writes about the Babylonian occupying force of Southern Egypt:

> They hired thousands of Israelites for this purpose, gave them land in the district now called Assuan, and granted them permission to build a temple there and offer up sacrifices to their God. Later these Israelites were joined by a group of Judeans. Generation after generation the Hebrew soldier-farmers lived there side by side with native Egyptians.

According to Grayzel (1948:733) many descendants of the abovementioned migrated to Ethiopia and also formed part of the forefathers of the black Ethiopian Jews. However, with regard to the Jews in Egypt it is also necessary to take into consideration the Old Testament context (cf Jer. 44:20-23).

In the context of the abovementioned historical events it is worthwhile to note that the prophet Jeremiah was also part of those developments. He had remained in Jerusalem after the third deportation by King Nebuchadnezzar since he had beaten the revolting King Zedekiah of Juda (Scofield Reference Bible, Jer. 52:1-2). Jeremiah had begged his countrymen to respect the powers of Nebuchadnezzar, but saw that the Jews continued to plot and rebel (with the hope of getting help from Egypt and the Moabites) against Babylon. The rebels also appealed to the Queen of Heaven by burning incense to call for her favours in the struggle against Babylon.

However, in the last moments of the expiring state of Juda the compatriots of Jeremiah carried him away to Egypt (Morton 1954:76). In this regard it should be noted that Jeremiah joined these Jewish exiles in Egypt under protest (cf De Klerk 1953:157). The prophet had insisted that the remaining Jews who had not been deported to Babylon should stay in Judah.

Jeremiah 43:4-7 (Scofield Reference Bible 1917) says in this regard:

> So Johanan the son of Kareah, and all the captains of the forces, and all the people, obeyed not the voice of the LORD, to dwell in the land of Judah.
> But Johanan the son of Kareah, and all the captains of the forces, took all the remnant of Judah, that were returned from all nations whither they had been driven, to dwell in the land of Judah;
> Even men, and women, and children, and the king's daughters, and every person that Nebuzaradan the captain of the guard had left with Gedaliah the son of Ahikam the son of Saphan, and Jeremiah the prophet, and Baruch the son of Neria.
> So they came into the land of Egypt: for they obeyed not the voice of the LORD: thus came they even to Tahpanhes.

Tahpanhes in Egypt had been mentioned earlier by Jeremiah, because in Jeremiah 2:16 (Ryrie Bible 1978) the prophet said: Also the men of Memphis and Tahpanhes have shaved the crown of your head.' According to a footnote in the Ryrie Bible, Memphis was the ancient capital of Lower Egypt. On the other hand Tahpanhes was located in the north East of Egypt and that city 'commanded the road to Palestine'.

The strategic position of Tahpanhes is confirmed in the Britannica Micropaedia Volume III (1974:375) as follows:

> Excavations by Sir Flinders Petrie in 1886 uncovered a massive fort enclosed by a wall 40 feet [12.19 metres] thick, built by Psamtik I in the 7th century B.C. After the Babylonian destruction of Jerusalem [587 BC], many Jewish fugitives, including the prophet Jeremia, fled to Tahpanhes. Its decline began in the 6th century BC when Ahmose II gave Naukratis the monopoly of Greek trade.

In view of the aforementioned 'decline' of Tahpanhes during the 6th century B.C. this could have caused the further Jewish migration further southwards into the African continent.

5.4.3 JEWISH MIGRATION TO SOUTHERN AFRICA

5.4.3.1 Yemenite Jews

Some groups of Yemenite Jews probably moved even further south than Egypt and Ethiopia. In this regard Le Roux (2003a:7) who has done intensive research and her doctoral studies on the origins of the South African Lemba tribe makes the following important statement:

> Various traditions exist regarding as to when the Lemba came to Africa. Some say it was during the time of Solomon, others again aver that they came with Arab traders coming to Southern Africa, and while a few informed leaders maintain that they came in about 586 BC.

Le Roux (2003b:25) reiterates the above as follows:

> From anthropological and archaeological evidence it has become clear that at a very early stage continuing influences between the Semitic world [Phoenician, Hebrew and Sabaean] and the eastern parts of Africa had a reciprocal impact. The Sabaean [Yemenite] colonies were established in Ethiopia very early. There seems to be a historical link between the Lemba and Yemen.

Earlier in this chapter (cf 5.4.1) the historical links between ancient Saba and Ethiopia were mentioned. The migration of Yemenite Jews to Ethiopia could therefore have provided the impulse and facilitated such emigration farther southwards into Africa. In addition profitable trading opportunities on the east coast of sub-Saharan Africa could also have stimulated such migration during the Old Testament period.

Le Roux (2003b:29) also refers to the high probabilities of trade between the Ancient Near East and East Africa as follows:

> According to the Old Testament, the Phoenicians [or Tyrians] traded with the land of Ophir [1Ki 10:11-15; Gn 10:29], from whence King Solomon of Israel [approximately 1000 BCE] drew rich merchandise after he had formed an alliance with Hiram, King of Tyre. Ophir could have been in southern Arabia, India or even East Africa [Sofala, with their merchants and markets]. That the Phoenicians [and other Semitic peoples] circumnavigated Africa from west to east [sic, should read east to west] and traded with east Africa at least by 110 BCE seems certain [Periplus of

> the Erythraean Sea, first century CE]; Landström 1964:52; Gayre of Gayre 1972:15-30]. Solomon's fleet took three years to return and brought back various items that would be the combined products of the coast of east Africa and of southern India [Gayre of Gayre 1972:28; Landström 1964:52]. Because of the distance, it was impossible to voyage to and from Ophir [if it was India] without making a principal landfall at Sofala. Therefore at a very early stage continuing influences between the Semitic world and the south-eastern parts of Africa had a reciprocal impact.

In the last-mentioned quote from Le Roux (2003b:29) mention is made of the possibility that Ophir could even have been situated in East Africa – 'Sofala, with their merchants and markets'. This probability shows a new perspective on previous discussions in this study (cf Chapter Two). Should Sofala (situated near Beira in the north of modern Mozambique) have in fact been an Arabian or more specifically a Yemenite port during the Old Testament period, this could have tremendous socio-economic repercussions. As Le Roux (2003b:29) observes above 'continuing influences between the Semitic world and the south-eastern parts of Africa had a reciprocal impact' at an early stage. This stage could therefore have been set already during the Old Testament period.

However, I would proffer that such trading relations would definitely date back to before '110 BCE'. Le Roux (2003b:29) mentions in this regard the circumnavigation of Africa by the Phoenicians under Pharaoh Necho (609 to 593 BC). As mentioned earlier in this study (cf 3.7) regular landfalls were made by those Phoenician seafarers to 'sow the land' and 'gather the crop' before they continued their epic voyage. Such landfalls and agricultural activities could therefore also have taken place on the coast of Sofala.

However, in this modern age, very little is left of ancient Sofala. In this regard Montgomery 1992:13-14) describes his visit to Sofala in 1973 as follows:

> It was a forlorn and strange experience because the old town was a washed away ruin in the sands of the Bay. I will always remember the particular feeling of dismay that I felt as we climbed over the brow of a sand dune to see a great low-tide plain of yellow sand before us with a small pyramid of dark stone in its centre, surrounded by black specks and pimples, like a rash. A brilliant kingfisher alighted nearby as I took photographs with my telephoto lens. We walked out on the drying sand,

> thankful that fate had made the tides suit us, and came to the pyramid jumbled stone blocks that was all that was left of the Fortress of Săo Caetano, built in 1505.

The lack of archaeological artefacts at Sofala in order to link old Sofala to the Ancient Near East could also have resulted from other causes than natural calamities. In this regard there is the possibility that the Portuguese settlers used the remains of ancient buildings as building material for their own forts, houses and even the cathedral in Beira.

However, the above quotes and discussions bring me to the key issue of possible links between the Ancient Near East and the ruins of Great Zimbabwe. The ancient port of Sofala presented an economic opportunity for a trade route to the rich gold sources near those ruins. In this regard Johnson (1940:143) mention that a possible 50 million tons of gold bearing ore have been extracted by the ancient gold miners, in Zimbabwe. Gayre of Gayre (1972:180) confirms the huge magnitude of these ancient mining operations.

In the next section of this chapter the main theories regarding possible linkages between the Ancient Near East and the Temple of Zimbabwe will be provided and briefly discussed. However, as mentioned in the Introduction to this chapter, I will, as far as possible, refrain to become opinionated about the relevant theories.

5.4.3.2 Temple of Zimbabwe

The above reference by Le Roux (2003a:7) to 'Arab traders' is also confirmed by other sources such as Bent (1896:vii-xvi) who *inter alia* draws parallels between the temple of 'Bilkis' (sic) (Queen of Sheba) and the 'great circular temple at Zimbabwe'. Although this topic falls mainly outside the scope of this study, I am of the opinion that the following quote from Bent (1896:vii-viii) is relevant to the study:

> Marib, the Mariaba of Greek and Roman geographers, was the capital of the old Sabaean kingdom of Southern Arabia, and celebrated more especially for its gigantic dam and irrigation system, the ruin of which was practically the ruin of the country. East-north-east of Marib, half an hour's ride brings one to the great ruin called by the Arabs the Haram of Bilkis or the Queen of Sheba. It is an elliptical building with a circuit of 300 feet, and the plan given by the French traveller, M. Arnaud, shows a remarkable likeness to the great circular temple at Zimbabwe.

Gayre of Gayre (1972:84) also refers to this likeness and the similarities as follows (Figure 13 a & b):

> The Marib temple's longest diameter is about 375 feet and its shortest diameter 250 feet. Incidentally this is the Temple of Ilumquh, not the Temple of Bilqis [Hahram Bilqis] as the Yemenis have called it. The temple itself was called Awwam and the god Ilumquh to whom it was dedicated was the moongod. In this temple there appear sixty-four false windows of imitation lattice in stone. While these are faithful reproductions of lattice, we think that the use of chequer pattern in Rhodesia is possibly an effort to reproduce the same effect by less-skilled sculptors and masons precluded from using hammer and chisel because of the more primitive milieu in which they were working.
>
> The inscription at Marib runs round one-fourth of its circumference as does the chevron pattern at Zimbabwe, which would suggest that, in a primitive interpretation of the Arabian culture in Rhodesia, a symbolic pattern [of the water of life] conveys its message in the same conventionalised manner. In the Arabian building the inscriptions dedicate the building to the goddess Almaqah. This goddess is also the same as Bilkis. Hamadani, the Arab geographer, says that Ialmaqah was Venus. From this it is clear that Ialmaqah or Almaq, and Queen Bilkis are the same. Therefore, within a megalithic civilisation having affinities with that of Great Zimbabwe, we have a Mother Goddess, sometimes equated with Venus, apart from any other religious concepts.

I have noticed the same above-mentioned chevron design on ancient pottery in the National Musea of Dubai and Dar es Salaam. In Southern Africa the chevron design also appears on pottery found in the Soutpansberg and northern parts of the Kruger National Park. In this regard Van der Lith (1972:202) mentions that the Lemba people were the manufacturers of the original Venda pottery.

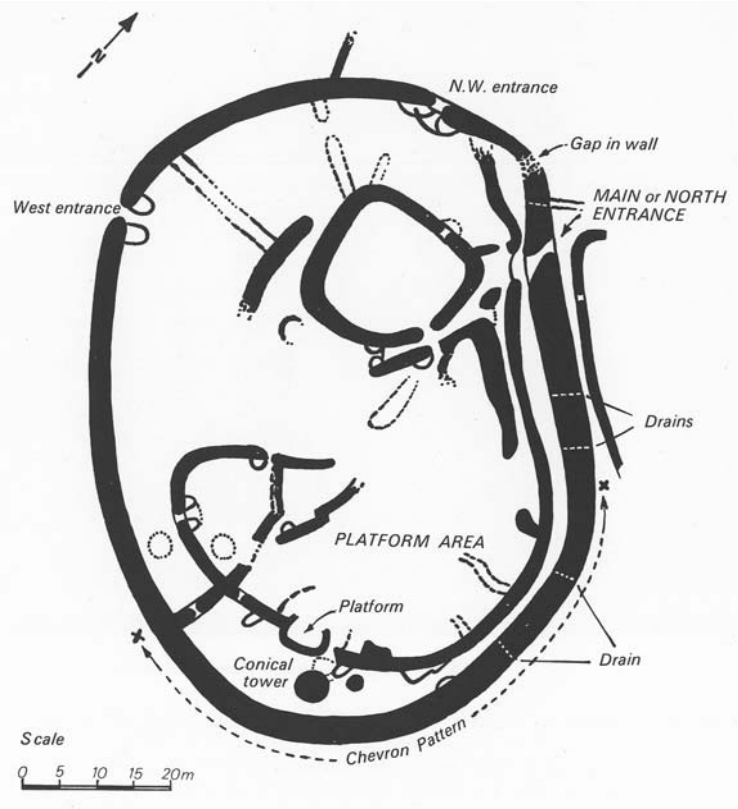

Figure 13a[16].

A Plan of the Elliptical Ruin, Great Zimbabwe.

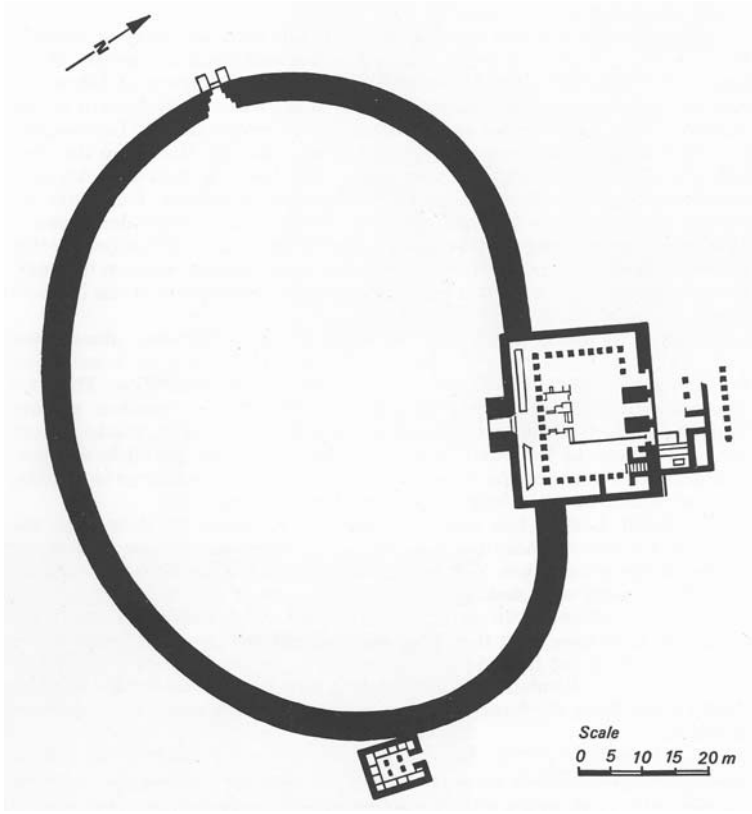

Figure 13b[16].

Ground Plan of the Temple of Awwam.

[16] Gayre of Gayre, R 1972. The origin of the Zimbabwean civilisation. Salisbury: Galaxie.

However, some sources are more inclined to proffer that the Phoenicians were responsible for the Ruins of Zimbabwe near Masvingo. In this regard Bruwer (1965:27) leans towards such a conclusion by comparing the architecture of the Ruins with Phoenician architecture as follows:

> From what is left of Phoenician architecture, we know that the Phoenicians built in stone without cement. They were on intimate terms with Egypt of the Pharaohs, who built the pyramids of huge blocks of fashioned limestone; they built the walls of their famous cities of huge blocks of stone, not carefully fashioned …

Although there are similarities in the building styles of dry masonry (without mortar) observed of Phoenician ruins in the Ancient Near East and those of Great Zimbabwe it is not my intention to pursue this matter further in this study. It is perhaps more worthwhile and of interest to stand still and discuss some of the artefacts that were excavated at the ruins of Great Zimbabwe, and compare those with artefacts found in ruins of the Ancient Near East.

5.4.3.3 Artefacts

During my visits to the museum at Great Zimbabwe in 1975 and 1977, I observed a number of artefacts on display which in subsequent years led me into further research. It should be noted that my visits to the relevant Zimbabwean museum took place before the independence of Zimbabwe in 1980. It is wellknown that since 1980 the displays, especially the write-ups of the artefacts, at the Zimbabwean museum have been drastically altered to conform with the political transformation in that country. The relevant transformation took place *inter alia* to display and express the socalled political correctness. However, as this study is within the ambit of Biblical Archaeology, I wish to refrain therefore from discussing the impact of such correctness in this study.

I rather focus on a few artefacts that are of interest to the topics and key issues of this study. Firstly, there are the famous soapstone birds which

were found on the walls of the ruins of Great Zimbabwe. Ironically this mysterious bird is also displayed on the Zimbabwean flag.

Over the past 100 years, these birds have fascinated a considerable number of archaeologists who have visited and worked at Great Zimbabwe. One of the first Western archaeologists to visit the Great Temple and nearby Acropolis forming Great Zimbabwe in 1891 was Theodore Bent from Great Britain. Bent (1896:xviii-xx) makes interesting comparisons between the Zimbabwean bird stele and the role of similar birds in especially Egypt. For example, Bent (1896:xviii) quotes in this regard from a letter he received from W. St. Chad Boscawen as follows:

> A curious parallel and possible explanation to the birds found in Mashonaland over the works at Zimbabwe seems to be afforded by the study of the mines and quarries of the ancient Egyptians. During my explorations in Egypt this winter I visited a large number of quarries, and was much struck by noticing that in those of an early period the hawk nearly always occurs as a guardian emblem.

Bent (1896:xviii-xix) quotes Boscawen who visited the mines not only in Egypt in Africa, but also mines of ancient Egypt in Sinai. As the region of Sinai forms part of the Ancient Near East which is the focus of this study, the following statements by Boscawen to Bent (1896:xix-xx) are of particular interest:

> A third example of this association of the hawk and the mines is afforded by a quarry of the period of the Eighteenth Dynasty. In the mountains at the back of the plain of Tel-el-Amarna is a large limestone quarry. On one pillar of this great excavation extending far into the hill is sculptured the cartouche of Queen Tii. On another column we have the hawk and emblems of the goddess Hathor, to whom all mines were sacred. This seems to show that the hawk was the emblem of the goddess Hathor, to whom all mines were sacred, as we know from the inscription at Denderah, where the king says, “I bestow upon thee the mountains, to produce for thee the stones to be a delight to see.” And it must be remembered that the region of Sinai was especially sacred to the goddess Hathor. This association of mines with Hathor especially explains the birds, as, according to Sinaitic inscriptions, she was in this region particularly worshipped. Here were temples to her where she was worshipped as “the sublime Hathor, queen of heaven and earth and the dark depths below”; and here she was also associated with the sparrow-hawk of Supt, “the lord of the East.” This association with Sinai, and also with Arabia and Punt, which is attached to the goddess Hathor, and her connection with the

> mines in Egypt, seems to me to be most important in connection with the emblem of the hawk in the mines at Zimbabwe.

The above-mentioned comments by Boscawen to Bent cannot be disregarded as purely coincidental. On several occasions in this study (cf 2.4 and 2.6) various important aspects of ancient mining activities were mentioned. With regard to the above comments on the important role of the bird goddess Hathor to especially miners, it also appropriate to refer to the bird decorations on the prow and stern of early Phoenician ships (cf 4.2).

However, staying with mining, I wish to give attention to another facet which may throw some light on possible similarities between ancient mining activities in Zimbabwe and those in Egypt and the Ancient Near East. In the same letter by Boscawen to Bent, mention is made of the 'remarkable ingot mould' which was discovered in the ruins of Great Zimbabwe. Bent (1896:xxi) quotes Boscawen as follows:

> The shape is exactly that of the curious objects, possibly ingots of some kind, which are represented as being brought by the Amu in the tomb of Khemmhotep at Beni Hasan, an event which took place in the ninth year of the reign of King Usortesen II, of the Twelfth Dynasty.

Earlier in this study (cf 2.6.1) mention was made of the large quantity of copper ingots salvaged from the shipwreck Ulunburun off the Turkish coast. These ingots on display at the Bochum Bergbau Museum, which I visited in December 2005, show some similarity with the ingot mould excavated at Great Zimbabwe. Both the design of the Zimbabwean mould and that of the Ulunburun copper ingots is such that in both instances it was made easier to carry by two workers. However, further research into this similarity is required.

There are also other artefacts recovered at the ruins of Great Zimbabwe which point to similarities with some of those excavated in the Ancient Near East. For example, Bent (1896:207-209) found at Great Zimbabwe an 'enormous number' of spindle-whorls. These look very similar to those found at Dor and discussed by Stern (2000:195) as follows:

> More common are the smaller spindle whorls for spinning threads. These remained almost unchanged through the ages. They are button-shaped and are made of various materials: mainly stone but also of clay, bone, and even metal, sometimes ornamented with simple geometric designs. One of their sides is flat and the other concave.

In the cases of both the Phoenician and Zimbabwe spindle whorls, clay was used to manufacture them. However, what is of paramount importance for this study is the mention by Stern (2000:195) of the 'simple geometric design' on the Phoenician spindle whorls. These designs show clearly on the spindle whorls depicted in Illustration 131 (cf Stern 2000:197). It seems too much of a coincidence that Bent (1896:209) shows illustrations of clay spindle whorls found at the ruins of Great Zimbabwe which also depict geometric designs. However, Bent (1896:207-208) calls these designs 'rude decoration.' Accordingly the relevant Phoenician and the Zimbabwean spindle whorls provide much food for archaeological thought (Figure 14).

Additional scientific research is therefore required of the two groups of spindle whorls. Any possible coincidence will require further proof.

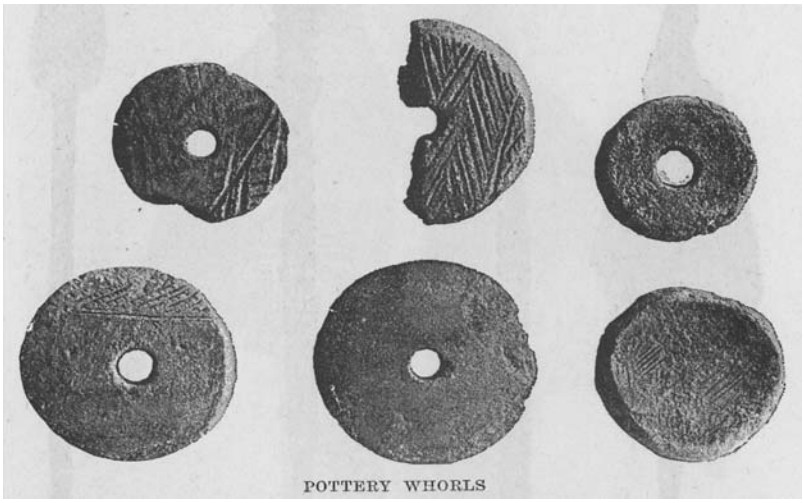

Figure 14a.

Spindle Whorls excavated at the ruins of Great Zimbabwe[17)]

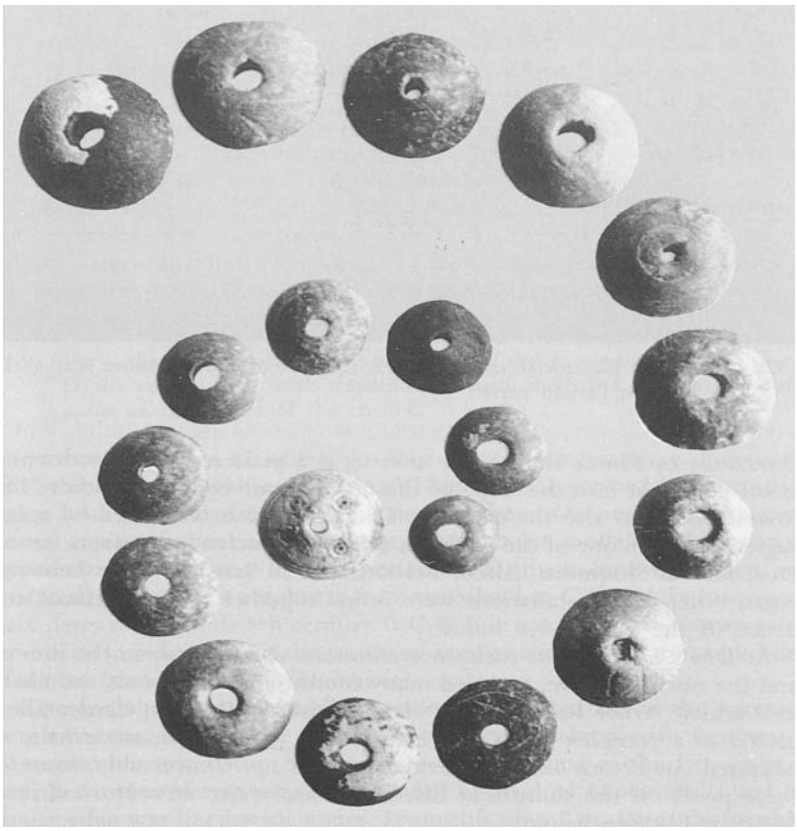

Figure 14b.

Spindle Whorls found at Dor[18)]

[17)] Bent, JT 1896. The Ruined Cities of Mashonaland. London: Longmans.
[18)] Stern, E 2000. Dor ruler of the Seas. Jerusalem: Israel Exploration Society.

Although the mystery of the Zimbabwean Ruins has not been fully resolved and the debate continues, it is not the objective of this study to provide a verdict. On the other hand, the above-mentioned evidence should make it clear that the impact of the peoples from the Ancient Near East on the developments in East Africa is considerable.

5.5 SUMMARY

In this chapter the role of socio-economic relations between the Ancient Near East and East Africa were discussed. This is a very wide issue and occurred over a long period in the Old Testament era. Accordingly the focus had to be on a few important milestones. In this regard the migration of Semitic people to Ethiopia and Egypt was discussed. Various Biblical texts (especially those of the prophet Jeremiah) were highlighted.

In the latter part of this chapter a brief overview and discussion was provided of possible Jewish and Arab emigration to southern Africa during the Old Testament Period. In this regard architectural similarities between the Temple of Bilqis near Ma'rib in Yemen and the Great Temple of Zimbabwe near Masvingo in Zimbabwe were illustrated. The apparent similarities of building techniques and some artefacts between those in the Ancient Near East and those of the ruins of Great Zimbabwe were also investigated.

In the next and last chapter of this dissertation, I will return to the study objectives as stated in Chapter One. An effort will be made to integrate holistically the economic and historical dimensions of this study using a multidisciplinary approach in order to arrive at overall conclusions.

CHAPTER SIX

CONCLUSION

6.1 INTEGRATION OF THE MULTIDISCIPLINARY ISSUES

In order to arrive at well founded and motivated conclusions, a holistic approach is required. For this purpose and in the light of the stated study objectives (cf 1.2), as far as possible a holistic and multidisciplinary approach is used.

With regard to the multidisciplinary approach, it is necessary to note that the main disciplines which are used in this study are the following:

- Biblical History;
- Biblical Archaeology;
- History;
- Economics;
- Geography; and
- Religion.

However, it will not be possible to integrate all the afore-mentioned disciplines at all times concurrently. As mentioned in Chapter One (cf 1.4), I do accept Biblical evidence as paramount historical facts relating to the existence of the Age of Solomon. In some instances, however, a historical critical methodology is applied to provide a possible balance in the relevant discussions.

As an economist by profession, I will try to refrain from placing too much emphasis in the following discussions on the economic aspects of this study.

Accordingly in this chapter, I will expand on and attempt to integrate the available evidence with regard to the following issues and aspects:

From Chapter Two specific attention will be given to:

- The geopolitical factors that influenced the 'Age of Solomon' (cf 2.2).
- The specific economic sectors such as mining and manufacturing (cf 2.6) which promoted exports by Israel.

From Chapter Three the following issues will be discussed:

- The historical background to the birth and growth of the Phoenician cities (cf 3.2).
- The impact of the Phoenicians on other civilisations (cf 3.3).
- The economic development and growth of Tyre's maritime and manufacturing sectors (cf 3.6).
- The negative influence of the Phoenician religion (cf 3.8.2).

From Chapter Four, the following issues are distilled:

- The synchronisation of economic needs and technological innovation (cf 4.2).
- The combination of geographical knowledge and navigational skills (cf 4.3; 4.4).
- Historical developments of maritime voyages and archaeological evidence (cf 4.5).

From Chapter Five the following key topics and issues will be analysed and discussed:

- The socio-economic developments that caused migration from the Ancient Near East to East Africa in the Biblical context (cf 5.2; 5.3).
- The migration of Israelites to South East Africa (cf 5.4.2).
- The archaeological evidence of similarities between excavations in the Ancient Near East and the ruins of Great Zimbabwe (cf 5.4.3).

6.2 GEOPOLITICAL AND ECONOMIC CONTEXT OF SOLOMONIC AGE

At the start of the Solomonic Age there were a number of geopolitical developments which had an important impact on the political and economic policies of the relevant roleplayers. Especially the turmoil in Egypt caused by the death of Pharaoh Ramses XI (cf Mokthar 1990:160) presented

opportunities to King Solomon to expand his economic interests for which the basis had been laid by his father King David. The fact that King David had already established friendly relations with King Hiram of Tyre assisted King Solomon to continue and expand on this relationship.

In view of the possible non-availability of a waterway (partly due to changing sealevels) between the Mediterranean Sea and Red Sea, King Solomon was presented with another opportunity to promote the economic interests of himself and Israel. However, the Pharaoh of Egypt, wanted to protect the economic and political interests of his country. The marriage of Pharaoh's daughter to Solomon (1 Ki 3:1) was therefore an effort to stabilise the economic relationships in the relevant political arena. The wisdom given to King Solomon by Yahweh (1 Ki 4:29-34) was in jeopardy by this marriage. In addition this event was not only the start of the exhaustive and expensive harem of Solomon, but also of the penetration of foreign deities into the religious activities of the people of Israel (cf 6.5).

6.2.1 Economic Cooperation between Tyre and Israel

After King Solomon and King Hiram had cooperated in the building of Solomon's palace and Yahweh's First Temple, they expanded their economic cooperation. As mentioned in Chapter Two this economic cooperation consisted to a large extent of maritime assistance from the Israeli port of Ezion-Geber granted by King Solomon to the Phoenician merchant fleets. However, this cooperation further disturbed some existing trade routes in the Ancient Near East. One of these routes had for many years been controlled by Saba. This country was the source of valuable aromatics used by the priests of ancient Egypt and other countries in their religious practices. Saba, having used land transport was therefore threatened by the combined merchant fleet of King Solomon and King Hiram. No wonder then that the monarch of Saba, the Queen of Sheba took the long journey of 1 400 miles through the 'rugged desert' to Jerusalem (cf 2.2.2).

However, although the Queen of Sheba was impressed by the wisdom of Solomon (1 Ki 10) it seems that she did not gain any economic advantages from her visit to Jerusalem. Meanwhile the economic cooperation between Solomon and his neighbour King Hiram I continued to flourish (cf 2.4 and 2.5). The two kings even expanded their trade and especially maritime cooperation into the Mediterranean area. This expansion was caused by their quest for additional raw materials and especially minerals such as tin.

6.2.2 Economic Impact of Mining in Israel

In Chapter Two (cf 2.6) the significance of minerals is highlighted. In this regard the production of copper, brass and bronze provided King Solomon with economic opportunities to close the deficits on the trade and current accounts of Israel. In addition the exports of goods such as weaponry and the taxes thereon could have improved the position of King Solomon's treasury. The high style of living of King Solomon and his entourage would have needed such an injection of taxes.

Accordingly Chapter Two shows that geopolitical factors and economic forces served as a catalyst to promote economic cooperation between *inter alia* Israel, Tyre and Saba. Especially the political and trade pact between Israel and Tyre enabled these countries to optimise their comparative advantages.

6.3 PHOENICIAN CIVILISATION

In this study, the role of the Phoenicians and their maritime trade are given a prominent place. Although their origin was somewhat 'murky' (cf Handy 1997b:155), the Phoenicians developed a formidable reputation not only amongst their peers and neighbours, but also later amongst their enemies.

However, before the Phoenicians could establish themselves firmly on the Syro-Palestine coast, they had to 'struggle' against the Sea Peoples (cf

3.2.1) of whom little is known. Consequently the history of the Phoenicians before the 11th century B.C. may warrant further research.

6.3.1 The Role of Tyre

Of the three main Phoenician cities namely Tyre, Sidon and Byblos, it is Tyre that attracts the main focus in this study (cf Chapter Two). Especially after forming an alliance with King David of Israel, it was King Hiram of Tyre that expanded the influence of his island kingdom. The synergy between Tyre and Israel, resulting in growing cooperation, had a specific positive effect on the Phoenician maritime trade.

This increasing maritime trade also provided a catalyst and stimulation of other facets of Phoenicia. In the relationship between the three Phoenician sister cities Tyre, Sidon and Byblos the common denominator was the Phoenician alphabet (cf 3.3). The important legacy of this alphabet is experienced by Christians in the 21st century A.D. When the Old Testament became translated into Greek, the 'Word of God' was given the name of Biblos – the Bible.

6.3.2 Maritime Expansion by Tyre

On the other hand, it was Tyre that took the lead in maritime expansion. In this regard the island's own maritime facilities were continuously upgraded to facilitate trade expansion. Especially the necessary infrastructure received attention under King Hiram. It was this king who linked the original two islands to form the new Tyre. Filling the channel between the two islands must be seen as a phenomenal civil engineering achievement (cf 3.4). This also proves that economic development goes hand in hand with the advancement of technology.

Chapter Three of this study also provided Biblical evidence of the wealth of Tyre. Quotes from the Old Testament (cf Ez 27) were used to illustrate the economic importance of Tyre in the Ancient Near East. However, the

prophet Ezekiel also predicted the destruction of Tyre eventually towards the end of the Old Testament period, by Alexander the Great.

Josephus (cf 3.5), the Jewish historian, also discusses Tyre in his works. Specifically his writings support the economic cooperation between King Hiram of Tyre and his royal compatriots King David and King Solomon of Israel. Biblical evidence in this regard is thus supported by the writings of Josephus.

6.3.3 Phoenician Trade

However, it is time for me to return to the magnitude of the Phoenician trade. Especially with regard to the manufacturing industry it was shown in Chapter Three (cf 3.6) that the Phoenicians were well advanced in the production of purple dye for clothing. For this purpose the Phoenicians were able to use the shellfish *Murex* to produce the relevant dye. In the process the Phoenician manufacturers gained a competitive advantage in supplying exquisite clothing. By means of aquaculture (cf Stern 2000:195-200), the Phoenicians were able to increase the production of the relevant dye and most probably also clothing, not only in their own cities, but also in other places such as Dor on the Mediterranean coast. This resulted in an increase in the relevant exports to meet the demand for exquisite clothing.

This ability to explore and innovate is a golden thread throughout the Phoenician history. The Phoenician pottery and metal products are also examples of such innovation (cf 3.6.3).

The geographical location of Phoenicia (cf 3.7) was ideal in terms of being situated on the course of trade between East and West. The Phoenicians were therefore merchants who bridged the gaps between eastern and western markets via their maritime trade. In doing so they established a large number of trading stations along the Mediterranean coast and islands. Some of these trading posts eventually developed into Phoenician colonies (cf 3.8).

6.3.4 Carthage

However, a Phoenician colony such as Carthage (cf 3.8.2) was not established as a result of economic forces, but because turmoil and murder within the monarchy of Tyre, forced a royal member Princess Elissa to flee the island. These Phoenician refugees took with them their knowhow of manufacturing and trading expertise. In Chapter Three (cf 3.7.1) some archaeological examples were provided of Chartage's economic endeavours.

However, excavations at Carthage during the 20th century A.D. also provided evidence of the dark side of the Phoenicians. Their heathen practices of worshipping deities of stones did not only lead to ghastly sacrifices of children for themselves, but these heinous practices were even copied and adopted by neighbours such as Israel. The relevant archaeological evidence at Carthage of the remains of thousands of children sacrificed to Moloch concurs with the Biblical narrative (Jer 7:31). In this modern age, a parallel can perhaps be drawn between the Phoenician sacrifices of children and the post-modernistic practice of *abortus provocatus*. Not only are these ancient and modern practices against God's will expressed in the Bible, but both also resulted from a materialistic and selfish expression of selfinterest.

6.3.5 Circumnavigation of Africa

It is time again to give attention to the Phoenician maritime trade as discussed in Chapter Three of this study. Already in Chapter Two, Biblical information was provided of the cooperation between Kings Hiram and Solomon operating their combined fleet from Ezion-Geber, into the Indian Ocean. However, there is a strong possibility that the Phoenicians circumnavigated Africa. In Chapter Three (cf 3.8.1) it is mentioned that in ca 600 B.C the Egyptian pharaoh Necho recruited Phoenician-sailors to undertake this epic voyage starting at an Egyptian port on the Red Sea.

This voyage took more than two years. Despite criticism, I am of the opinion that the Phoenician mariners and their ships were capable of circumnavigating Africa. In this regard it is worthwhile to mention that when I started my secondary research in the late 1960s on the Phoenicians, I discovered in Cape Town a road map of the Cape Peninsula showing the wreck of a 'Phoenician galley'. The relevant map published (date unknown) by Mobil, (a South African oil company) showed this wreck being located in the middle of the Cape Flats about 10 kilometres from Cape Town. However, since then I have, despite an intensive search, been unable to obtain further information about this wreck. Although there is also speculation (cf Rawlinson 2005:70-71; Schepens 1987:322) that the Phoenicians established settlements in the Red Sea, no conclusive evidence can be offered of such settlements. However, in Chapter Five, I do return to this key issue as far as southern Africa is concerned. The relevant possible linkages will be discussed further below (cf 6.5).

6.4 ANCIENT SHIP DESIGNS AND MARITIME SKILLS

The commercial and territorial expansion of the Phoenicians was to a large extent dependent on their abilities and skills to travel long distances over seas and oceans. For this purpose they required ships which were designed in such a way that they could withstand the changes in climatic conditions. Navigational skills were, as in the modern age, very important to arrive safely at destinations.

6.4.1 Technology and Geography

This study gives specific attention to the relevant aspects of technology and geography in Chapter Four. Firstly, extensive evidence was provided of the shipbuilding abilities of not only the Phoenicians, but also other peoples in the Ancient Near East. In this regard the Phoenicians were, however, in an advantageous position by their control over the nearby supply of wood from what are now called the Lebanese mountains. This supply of wood combined with their ship designs and technical abilities

enabled them to build bigger and larger ships for others including the Romans (cf 4.2). With regard to their own ships it was noted that a bird head decorated both prows of the Phoenician ships. This birdhead design is again referred to in Chapter Five where the similarities with the soapstone birds found at the ruins of Great Zimbabwe are discussed (cf 5.4.3.3). These similarities will also be referred to below (cf 6.5).

However, to propel the ancient ships it was necessary to have the right sails (cf 4.1) supported where required by human power to operate the wooden oars. With regard to these oars, evidence is provided to prove that the Phoenician ships were designed to accommodate a considerable number of oarsmen (cf 4.2).

The relevant ancient ships carried a singular square sail produced by sailmakers. The spinning and weaving technologies of especially the Phoenicians enabled them to manufacture these sails and the necessary ropes.

6.4.2 Navigational Skills

However, as mentioned above, the navigational abilities of the ancient mariners were also of utmost importance to reach their destinations safely and on time. It is shown in this study (cf 4.3), that in the post Old Testament times these ancient navigational skills may have been underestimated. The ancients were in fact capable of navigating by means of techniques developed over thousands of years in the Ancient Near East. Although the ancient seafarers did not have the compass, they were able to harness astronomy to select and identify star galaxies such as the Milky Way to navigate by. In this regard evidence was provided in Chapter Four (cf 4.3) that such star identification was combined with the knowledge of wind directions. Accordingly it is clear that the ancient mariners already had a good understanding and practical applications of important issues in meteorology. Especially, the design of the wind-rose and the use of the *Periplus* (log book) enhanced these ancient navigational abilities.

These navigational abilities were also important to Alexander the Great (student of Aristotle) who was far ahead of his ancient times especially in the arena of the Indian ocean. This is proven by the epic voyage of Nearchus (the Greek admiral of Alexander the Great) and his fleet from the Indus Valley to the Persian Gulf (cf 4.3).

6.4.3 Impact of Monsoon Winds

In this regard it is illustrated in Chapter Four (cf 4.4) that the knowledge of the monsoon winds played a cardinal role in the decisionmaking process of ancient mariners. This knowledge of monsoon winds has an important bearing on the central i.e. key issue in this study namely the socio-economic relations between the Ancient Near East and East Africa. In the discussion of the monsoon winds in Chapter Four (cf 4.4) several old and relatively new sources are quoted in order to provide sufficient proof of the knowledge and understanding by the ancients of the monsoon winds' direction and seasonality. This knowledge of the nature and seasons of the monsoon winds was harnessed by the ancient mariners to reach East Africa and trade in those African destinations.

6.4.4 Reed Boats

Chapter Four also provides other evidence of the ancient voyages between the Ancient Near East and East Africa. In this regard the important role of reed boats is discussed in Chapter Four (cf 4.5). Some regions of the Ancient Near East probably did not have adequate supplies of wood to build wooden ships. Deforestation, as is occurring in modern times, could also have impacted on the possible substitution of wood for reeds in constructing boats. Chapter Four (cf 4.5) also provides Biblical evidence (Is 18:2) of the existence of such Ethiopian reed boats.

It was the well-known Norwegian mariner and explorer Thor Heyerdahl who provided more evidence during the latter half of the 20th century that such

reed boats could be used for long voyages. My own recent empirical research in the Kon-Tiki museum in Oslo, where Heyerdahl's efforts are honoured, provided me with insight of his innovative replicas of ancient reed boats. His heroic achievements in the Pacific, Atlantic and lastly the Indian oceans are displayed in detail in that museum.

6.4.4.1 Voyage of the 'Tigris'

The exploits of Heyerdahl in the Indian ocean are of special interest to this study. Despite some criticism, his voyage on the replicated reed boat, the 'Tigris', provides worthwhile evidence of the seaworthiness of such ancient boats over long distances (cf 4.5.1). The voyage of the 'Tigris' from the Persian Gulf via the Indus Valley to East Africa also provided valuable archaeological information. In this regard Heyerdahl makes mention of artefacts which reflect illustrations of ancient reed boats and stamp seals (cf 4.5.3) which were and are still excavated in various regions of the Ancient Near East. Seals found in the ruins of Dor (Stern 2000:120-121) and those described by Heyerdahl (1980:102-103) all provide possible indications of the existence of ancient ships in different regions of the Ancient Near East.

In addition to the existence of long voyages by ancient ships, Heyerdahl (1980:124) also refers to the ancient maritime trade in minerals. A synthesis with the discussion of ancient copper mining in Israel during the Age of Solomon (cf 2.6.2) shows that the ancients were capable of not only advanced metallurgy, but also of the trade in such metals and beneficiated metal products. For such trade there were various ancient entrepôt harbours in existence (cf 4.5.5). Such entrepôt harbours show parallels with a South African harbour such as Durban which is a modern entrepôt harbour for landlocked countries such as Botswana, Zambia and Zimbabwe.

6.4.5 Revisiting of History Books

Consequently this study is an endeavour to show in the words of Gayre of Gayre (1972:22-23) that the Indian Ocean was not a '*mare incognitum*' to the ancient people of the Ancient Near East. Accordingly it is recommended that the relevant school history books in various countries and especially Southern Africa are rewritten to incorporate the abovementioned facts and evidence. However, this recommendation also applies to study material used at Biblical schools and theological faculties and departments at universities. At the same time, the concept of a socalled *African Renaissance* should also be revisited in order to put ancient African history in perspective.

6.5 MIGRATION AND TRADE ACTIVITIES BETWEEN THE ANCIENT NEAR EAST AND EAST AND SOUTH EAST AFRICA

6.5.1 Migration from Saba to Ethiopia

After the discussion of the evidence pointing to maritime and trade relations between the Ancient Near East and East Africa, Chapter Five discusses *inter alia* the migration of Arabs and Jews to East and South East Africa. Firstly, the migration of people from Saba (modern Yemen) to Ethiopia is discussed (cf 5.2). Although there is a difference in the statements by various authors about the dating of such migrations, there is sufficient evidence that such migration is historically founded.

This Arab migration from Saba to Ethiopia was probably due to declining economic opportunities and possibly wars between various Yemenite tribes (cf 5.2.1). In fact economic decline in ancient Saba was also aggregated by problems resulting from the silting and dam wall collapses of the Ma'rib dam (cf 5.2.1).

Chapter Five also shows (cf 5.3) that the Sabaean immigrants had an enduring impact on the religion and language in ancient Ethiopia. In this

regard parallels are drawn between the deities worshipped in Saba and religious practices in parts of ancient Ethiopia.

6.5.2 Jewish Migration to Africa

The key issue of Jewish migration from Israel as well as Saba to Africa also forms an important part of Chapter Five. In this regard the use of Jewish guards in southern Egypt to protect Babylonian interests in that region, pre-empted subsequent Jewish migration. Even the prophet Jeremia (Jer 43:4-7) was part of such migration. However, it is not clear whether the Jewish colonies in Egypt participated in further southwards movements into Africa.

6.5.3 Southern Africa

However, it seems highly feasible and probable that some Yemenite Jews did in fact emigrate to Southern Africa across the Indian ocean (cf 5.4.3). In this regard specific mention was made of the research by Le Roux (2003b:25-29) regarding the links between the Lemba tribe in Southern Africa and Yemen. Possible links between the Biblical 'Ophir' mentioned in Chapter Two (cf 2.4) and East Africa are also discussed in Chapter Five (cf 5.4.3.1). An effort was made to present a picture of highly probable socio-economic relations between the Ancient Near East and Southern Africa.

The ruins of Great Zimbabwe have produced a variety of artefacts which show similarities with archaeological evidence from the Ancient Near East. Firstly, the architectural similarities between the Temple of Zimbabwe and the Temple of Ma'rib are discussed in Chapter Five (cf 5.4.3.2). In this regard the shape of and chevron pattern on the Western wall of the Temple of Zimbabwe show a topical similarity with those of the Temple at Ma'rib.

In addition artefacts such as soapstone birds found at Great Zimbabwe have a strong resemblance with images of birds excavated in Egyptian mines in the Sinai (cf 5.4.3.3). The Egyptian bird goddess Hathor, was *inter alia* regarded as the protector of miners especially those miners working in

dangerous circumstances. Did the goddess Hathor also emigrate with gold miners to ancient Zimbabwe?

Another artefact excavated at the ruins of Great Zimbabwe can possibly be linked to mining and smelting activities in the Ancient Near East. The mould found at Great Zimbabwe (Bent 1896:xxi) shows in its design a similarity with the design of the copper ingots which I saw in December 2005 at the Bergbau Museum in Bochum, Germany. The latter ingots formed part of a load of 10 tons of copper excavated from the shipwreck Uluburun near the coast of Turkey (cf 2.6.1). However, this possible mining connection will require further research.

Other artefacts excavated at the ruins of Great Zimbabwe as well as other nearby archaeological sites which show great promise in being linked to similar artefacts found at Dor (Stern 2000:195) are spindle whorls. In both instances they are not only manufactured from clay, but are also decorated with similar geometric designs. However, any possible connection requires further research.

Overall, this study has enabled me to bring together a diverse range of sciences in order to reach the objectives of this study. At the end of this study, I also wish to refer again to the following two hypotheses posited under the Objectives of this study (cf 1.2):

- A multi-disciplinary and holistic research process could provide a better i.e. comprehensive understanding of relevant key issues such as mining, manufacturing, commerce and trade in the Old Testament.
- The ancient seafarers such as the Sumerians and Phoenicians developed navigational abilities and possessed shipbuilding skills which enabled them to travel long distances between the Ancient Near East and Africa.

Throughout this study endeavours were made to keep these hypotheses in mind in order to follow an holistic research process. Especially in this last chapter a number of linkages are provided between the relevant key issues. These attempts could have an important bearing on increasing the

comprehensive understanding of the Old Testament period. This study also gives specific attention and provides a discussion of the shipbuilding and navigational skills of the Sumerians and Phoenicians.

This multidisciplinary approach has taken me literally on an exciting worldwide journey during the past 30 years in order to do secondary and primary research to collect satisfying evidence in terms of a research approach of positivism.

BIBLIOGRAPHY

Bamm, P 1965. *Alexander de Grote*. Den Haag: Forum.

Bent, JT 1896. *The Ruined Cities of Mashonaland*. London: Longmans.

Best, ACG & de Blij, HJ 1977. *African Survey*. New York: John Wiley.

Bruwer, AJ 1965. *Zimbabwe Rhodesia's Ancient Greatness*. Johannesburg: Keartland.

De Klerk, PJS 1953. *Woorde en Dade van die Profete*. Pretoria: Van Schaik.

De Kock, WJ 1957. *Portugese Ontdekkers om die Kaap*. Kaapstad: Balkema.

De Vaux, R 1990. *Ancient Israel Its Life and Institutions*. London: Darton, Longman & Todd.

Dever, WG 2001. *What did the biblical writers know and when did they know it?* Grand Rapids: Eerdmans.

Doresse, J 1967. *Ethiopia*. London: Elek.

Embassy of the Republic of Yemen 1996. *The Ancient Land of the Queen of Sheba*. Ottawa: Embassy of the Republic of Yemen.

Encyclopaedia Britannica Macropaedia volume I, 1974. Chicago: Benton.

Encyclopaedia Britannica, Macropaedia Volume 15, 1974. Chicago: Benton.

Encyclopaedia Britannica, Micropaedia Volume II, 1974. Chicago: Benton.

Encyclopaedia Britannica, Micropaedia Volume III, 1974. Chicago: Benton.

Encyclopaedia Britannica, Micropaedia Volume VII, 1974. Chicago: Benton.

Encyclopaedia Britannica, Micropaedia Volume VIII, 1974. Chicago: Benton.

Encyclopaedia Britannica, Micropaedia Volume IX, 1974. Chicago: Benton.

Furneaux, R 1978. *Geheimen der oudheid*. Delft: Elmar.

Gayre of Gayre, R 1966. *Ethnological Elements of Africa*. Edingburgh: Armorial.

Gayre of Gayre, R 1972. The *origin of the Zimbabwean civilisation*. Salisbury: Galaxie.

Glueck, N 1959. *Rivers in the Desert*. London: Weidenfeld & Nicolson.

Gore, R 2004. Who were the Phoenicians? in *National Geographic* 206 (4),26-49.

Grayzel, S 1948. *A History of the Jewish People*: Philadelphia: Jewish Publication society of America.

Hämäläinen, P 1991. *Yemen.* Berkeley: Lonely Planet.

Hammond, CS 1964. *Hammond's World Atlas*. New York: Hammond.

Handy, LK (ed) 1997a. *Age of Solomon*. Leiden: Brill.

Handy, LK 1997b. ‘Phoenicians in the Tenth Century BCE’, in Handy (ed) 1997:154-166.

Heltzer, M Lipiński, E (eds) 1988. *Society and Economy in the Eastern Mediterranean*. Leuven: Peeters.

Heyerdahl, T 1970. *The RA Expeditions*. London: Book Club Associates.

Heyerdahl, T 1980. *The Tigris Expedition.* London: George Allen & Unwin.

Howe, G 2005. ‘Travelling back in time in Tunisia’, in *The Star* 10/9/2005, 12-14. Johannesburg: The Star.

Hromnik, CA 1981. *Indo-Africa*. Cape Town: Juta.

Jancowicz, AD 1995. *Business Research Projects*. London: Thomson Learning.

Jones, A (ed) 1968. *The Jerusalem Bible*. London: Darton, Longman & Todd.

Johnson, F 1940. *Great Days*. London: Bell.

Kitchen, KA 1997a. ‘Egypt and East Africa’, in Handy (ed) 1997:106-125.

Kitchen, KA 1997b. ‘Sheba and Arabia’, in Handy (ed) 1997:126-153.

Krűger, DJ 2004. The Sea Peoples and Annales: A contextual study of the Late Bronze Age. Unpublished MA. Pretoria: UNISA.

Le Roux, M 1995. Anargie in die beloofde land. ‘n Holistiese benadering tot die ‘Rigtertyd’. Unpublished MA Pretoria: UNISA.

Le Roux, M 2003a. *The Lemba. A Lost Tribe of Israel in Southern Africa?* Pretoria: UNISA Press.

Le Roux, M 2003b. In search of the Origin of the Merchants of Sena*. Religion & Theology* 10 (1), 24-50.

Lipiński, E (ed) 1987. *Phoenicia and the East Mediterranean in the First Millennium B.C.* Leuven: Peeters.

Matthews, SW. 1974. *The Phoenicians.* Washington D.C.: National Geographic.

Millard, A 1997. King Solomon in His Ancient Context, in Handy (ed) 1997:30-53.

Mokthar, G (ed) 1990. *General History of Africa, Volume II: Ancient Civilizations of Africa.* Berkeley: UNESCO.

Montgomery, D 1992. *The two shores of the Ocean*. Hanley Swan: Malvern.

Morton, HV 1954. *Through Lands of the Bible*. London: Methuen.

Na'aman, N 1997. 'Sources and Composition in the History of Solomon', in Handy (ed) 1997:57-80.

Oppenheim, AL 1954. The Seafaring Merchants of UR. *American Oriental Society 1*, 6-17.

Owen, R 1979. *Great Explorers*. London: Artus.

Pakenham, T 1959. *The Mountains of Rasselas*. London: Weidenfeld.

Penry-Jones, J 1965. *Ships and Shipping*. London: Burke.

Perego, G 1999. *Interdisciplinary Atlas Of The Bible*. New York: Alba.

Pesce, A 1974. *Jiddah*. London: Falcon.

Raban, A 1988. 'The Constructive Maritime Role of the Sea Peoples in the Levant' in Heltzer & Lipiński (Eds) 1988:261-294.

Rawlinson, G 2005. *Phoenicia History of Civilization*. London: Tauris.

Ryrie, CC 1978. *The Ryrie Study Bible*. Chicago: Moody.

Samuelson, PA and Nordhaus, WD 1989. *Economics*. Singapore: McGraw-Hill.

Schepens, G 1987. 'The Phoenicians in Ephorus Universal History', in Lipiński (ed) 1987:315-330.

Scofield, CI (ed) 1917. *Holy Bible, Scofield References*. London: Oxford University Press.

Singer, I 1988. 'The Origin of the Sea Peoples and their Settlement on the Coast of Canaan', in Heltzer & Lipiński (eds) 1988: 239-260.

Stern, E 2000. *Dor Ruler of the Seas*. Jerusalem: Israel Exploration Society.

Sturley, DM 1969. *The Study of History.* London: Longmans.

Toussaint, A 1966. *History of the Indian Ocean*. London: Routledge & Kegan Paul.

Van der Lith, AA 1972. Die Keramiek van die Venda, in Eloff & Coertze (reds) 1972: 202-245.

Van der Straaten, C 2004. *Exploring efficiency in ABSA's International Banking Division*. Johannesburg: Damelin.

Vincent, W 1807. *The Commerce and Navigation of the Ancients in the Indian Ocean*. London: T Cadell & W Davies.

Whiston, W 2003. *The Works of Josephus*. Peabody: Hendrickson.

Whitfield, P 1996. *The Charting of the Oceans*. Rohuert Park: Pomegranate.

Wurmbrand, M & Roth, C 1966. *The Jewish People*. Jerusalem: Massada.

Yalçin, Ü, Pulak, C & Slotta, R 2005. *Das Schiff von Uluburun.* Bochum*:* Deutsches Bergbau-Museum.