WAR IN ANCIENT EGYPT

The New Kingdom

Anthony J. Spalinger



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To Elizabeth (7 July 1909 to 29 March 1999)

CONTENTS

	List of Figures	viii
	List of Maps	X
	Acknowledgments	xi
	Preface	xiii
	Chronology	xvi
1	Prelude to New Kingdom Warfare	1
2	The System of Early Dynasty XVIII: Technological	
	and Physical Constraints	32
3	Southern and Northern Expansion	46
4	Social and Religious Implications of the New Military System	70
5	The Battle of Megiddo and its Result	83
6	The Pharaoh on Campaign: Ideal and Real	101
7	The Later Military Situation in Asia and at Home	110
8	Egyptian Imperialism and Thutmose III	130
9	Dynasty XVIII: Warfare and Economy	140
10	The Amarna Letters and War	160
11	The Influence of the Egyptian Military from Late	
	Dynasty XVIII to Dynasty XIX	169
12	Early Dynasty XIX	187
13	To Kadesh and After	209
14	Merenptah and Ramesses III	235
15	Egypt on the Defensive	249
16	The Social System of the Military in the Ramesside Period	264
	General Bibliography	278
	Index	282

FIGURES

1.1	Egyptian horses: Long-lined and short-lined.	9
1.2	Egyptian chariot horses, Seti I, Karnak.	11
1.3	Egyptian chariot from Thebes.	14
1.4	Limestone relief depicting the harvesting of grain from	
	the pyramid temple of King Ahmose at Abydos.	20
1.5	Limestone relief showing Nubian archers with longbows	
	firing into the air, from the pyramid temple of King	
	Ahmose at Abydos.	20
1.6	Drawings from the pyramid temple of King Ahmose	
	at Abydos.	21
1.7	Tentative reconstruction of the battle reliefs of King	
	Ahmose from his pyramid temple at Abydos.	22
3.1a a	and b Thutmose II battle scenes from his mortuary	
	temple.	60
3.2	Suggested reconstruction of the left side of Asiatic	
	battle scene from the temple of Thutmose II at Thebes.	62
7.1	Group of bows on display in Cairo.	118
7.2	Right side of the chariot (exterior).	119
7.3	Left side of the chariot (exterior).	119
7.4	Detail of wall painting, Thebes, tomb of Rekhmire.	122
8.1	Military equipment from the tomb of Kenamum of	
	Thebes.	134
9.1	Amunhotep II battle reliefs.	142
9.2	Amunhotep II battle reliefs; drawings.	143
11.1	Chariot Al (Obj no. 122), Cairo Museum.	181
12.1	Seti I against the Libyans [Thebes, Karnak].	194
12.2	Seti I against the Hittites [Thebes, Karnak].	196
13.1	Battle of Kadesh [Ramesseum, Western Thebes,	
	First Court; Camp].	218
13.2	Battle of Kadesh – reliefs from the Temple of	
	Ramesses II at Abydos. Counting hands.	219
13.3	Battle of Kadesh - reliefs from the Temple of Ramesses II	
	at Abydos. Hittite Guards of Teher Warriors.	219

FIGURES

13.4	Battle of Kadesh – reliefs from the Temple of Ramesses II	
	at Abydos. Attacking Hittites.	220
13.5	Battle of Kadesh - reliefs from the Temple of Ramesses II	
	at Abydos. Advancing Chariots.	220
13.6a	Battle of Kadesh [Luxor, First Pylon (East); Attack on	
	the Enemy].	222
13.6b	Battle of Kadesh [Luxor, First Pylon (East); Attack on	
	the Enemy].	223
13.7	Ramesses II: Attack against Dapur.	224
13.8	Ramesses III: Siege of Tunip.	225
14.1a	Position of Merenptah's Canaanite Campaign reliefs	
	in the temple of Karnak, at Luxor.	242
14.1b	Layout and disposition of scenes of Merenptah's	
	Canaanite Campaign reliefs at Karnak.	242
14.2a	Scene 1, Lower register. Merenptah besieges Ashkelon.	243
14.2b	Scene 2, Lower register. Merenptah besieges an unnamed	
	town, probably Gezer. Traces of water from earlier reliefs	
	visible at bottom center.	243
15.1	Ramesses III: Naval battle.	251
15.2	Ramesses III: Land battle.	252

MAPS

1	Egypt	xviii
2	Nubia	xix
3	Palestine and Syria during the New Kingdom	XX
4	The battle of Megiddo	84
5	The battle of Kadesh: The Hittite attack	210

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The conception of this work has much to do with a preliminary study on Egyptian warfare written under the auspices of Prof. Daniel Snell. At that time I had envisaged a lengthy study covering the entire history of Pharaonic Egypt, a project that my editor, Al Bertrand, carefully revised in light of the wealth of information that would have to be included. To him, therefore, I render my thanks for allowing me to proceed at a more reasonable pace, one that has turned out to be as informative for me as I hope it will be for the reader. Equally, Angela Cohen and Annette Abel have proven to be worthy editors whose presence can be felt on every page.

The numerous specialized works concerning animal power, food intake (really fuel capacity), and war material have been assembled by me over a lengthy period of time. Through the kind offices of the University of Auckland's Research Library, I have been able to obtain many of these studies, either located in moribund governmental publications or else in recondite libraries. To a large extent, the study of ancient warfare entails the investigation of ancient technology, a field that has yet to become a subset of modern Egyptology, and for this reason published data are not easily obtainable from the expected quarters. Nonetheless, the careful researcher will discern that I have not hesitated in using unpublished research reports such as MA theses or PhD dissertations. It is hoped that such works will be available in final form at a later date.

Because the orientation of this study is as socially directed as it is political, I must alert the reader to Oleg Berlev's research, covered in Chapter 1 in particular. As it is too late to thank him personally, these remarks are intended for his memory. An additional indirect but by no means negligible influence upon this final product has been that of Dr. Andrea Gnirs, whose up-to-date work concerning the Pharaonic war machine is a mine for all scholars. In similar fashion I am dependent upon the extraordinary kind offices of Prof. Manfred Bietak of Vienna who, in a remarkable fashion, has regularly sent me a series of recent publications from his working group on New Kingdom military reliefs. Finally, I have to thank a host of postgraduate

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March 31, 2004

PREFACE

This study is an attempt to develop our understanding of the socio-political effects of the military system within the New Kingdom (ca. 1550 BC–1070 BC). Owing to the subject and the limitations of the framework, I have concentrated upon the basic logistics of the ancient Egyptian war machine within this limited time sphere. In addition, the ramifications of the expansion of one subsystem within Pharaonic society during the Empire Period has led me to balance the external imperialistic policies of these monarchs with the internal expansionistic attitudes of its practitioners. By and large the reader will find that the study concentrates upon the logistic side of New Kingdom warfare and avoids the commonplace historical surveys of the wars of the various Pharaohs.

The focus of the analysis aims at determining the military effectiveness of the Egyptian state. Hence, it places in a secondary position a description of the various weapons employed in battle, the defensive and offensive abilities of the Egyptians, and the resultant successes abroad. In a similar fashion I have avoided a blow-by-blow account of each Pharaonic campaign, preferring instead to concentrate upon the longer-range effects of the rise in Egypt of a new group of men, a social sector that hitherto played an important but by no means predominant factor in the nation.

Questions such as the probable level of population at this time in conjunction with the actual number of arm-bearing men form an important part of the discussion. I have placed emphasis upon the political and geographical situation outside of the Nile Valley, both in Asia (Palestine and Syria) as well as to the south (Nubia). There are various excurses placed at the end of each chapter which evaluate the issues of logistics, rate of march, food intake, population level, and the like. This approach, which I have borrowed from Hans Delbrück, has been employed in order to examine carefully the difficult issues that a study of the New Kingdom military system offers. Mathematical points of view rarely have been taken into consideration outside of some pertinent comments concerned with the Battles of Kadesh (Dynasty XIX) by Kenneth A. Kitchen and of Megiddo (mid Dynasty XVIII) by Donald B. Redford. Often the wars of the New Kingdom Pharaohs have been covered either with a

PREFACE

purely geographical perspective or one concentrated upon elucidating the historical outlines.

The recent study of Andrea Gnirs concerning the hierarchical make-up of the Egyptian war machine and the crucial internal aspects of the social system of the day has proved to be extremely useful.³ Therefore, detail has been given to the role of the military in Egyptian society. I have also followed Harry Holbert Turney-High who maintains that "the means of any implementing any motive or goal are secondary to the primary means of action." Robert B. Partridge's *Fighting Pharaohs*, for example, expends a great amount of worthwhile energy in describing the various implements of military defense and offense without, however, analyzing either the logistics of Pharaonic warfare, the geographic and economic constraints, or the factors of population.⁵ The reader is thus recommended to turn to his second chapter wherein the basic factors of armaments and weaponry are covered.

The limitations of the theme have meant that an in-depth perspective concentrated upon international relations has been circumscribed. My orientation is the warfare of the Egyptian New Kingdom, not the intense diplomacy, international correspondence, state marriages, and economic interconnections which pervade the entire era. On the other hand, I have spent some effort in estimating gross population sizes (Egypt and Palestine in particular), and that of the native army as well, in order to set some parameters upon the "military preparedness ratio." Portions of the various excurses have also been devoted to estimating the raw fuel that went into these armies, both for the soldiers as well as for the animals. By and large, the conclusions are rough, although such approximations may be self-evident to any Egyptologist owing to the limited extant data. This approach, however, is necessary for any scientifically advanced work on the New Kingdom army, and it is hoped that the discussions will provide a stepping-stone for scholars interested in such matters.⁶

While not purposely ignoring the numerous books and articles that have been written on this subject, and the related ones of chronology or international relations, I have thought it best to limit the number of sources given in the notes. The literature has been referred to in the most complete way possible in order to allow an ease of research, but as this volume is oriented to the interested public, the focus is directed more to the key primary and secondary sources than to the minutely oriented and often controversial studies that abound. I hope that this meets with the approval of the reader.

NOTES

1 For the importance of this historian, see Gordon A. Graig, "Delbrück: The Military Historian," in Peter Paret, ed., *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, Princeton University Press, Princeton (1943), 326–53; and

PREFACE

- Arden Bucholz, Hans Delbrück and the German Military Establishment: War Images in Conflict, University of Iowa Press, Iowa City (1985).
- 2 Donald B. Redford, The Wars in Syria and Palestine of Thutmose III, Brill, Leiden and Boston (2003); and Kenneth A. Kitchen, Ramesside Inscriptions. Translated and Annotated, Notes and Comments, II, Blackwell, Oxford and Malden (1999), 39–40. It is noteworthy that the size of an Egyptian division was set as early as 1904 by James Henry Breasted (5,000); see his later Ancient Records of Egypt III, University of Chicago, Chicago (1906), 153 note a. By and large, most military historians have followed his conclusions.
- 3 Andrea M. Gnirs, Militär und Gesellschaft. Ein Beitrag zur Sozialgeschichte des Neuen Reiches, Heidelberger Orientverlag, Heidelberg (1996).
- 4 Harry Holbert Turney-High, *The Military. The Theory of Land Warfare as Behavioral Science*, Christopher Publishing House, West Hanover (1981), 36.
- 5 Robert B. Partridge, Fighting Pharaohs. Weapons and Warfare in Ancient Egypt, Peartree Publishing, Manchester (2002). This study deals with the entire phase of Pharaonic history from Predynastic times to the fall of the New Kingdom (end of Dynasty XX).
- 6 Å study on the logistics of the New Kingdom armies is in preparation by my student Brett Heagren.

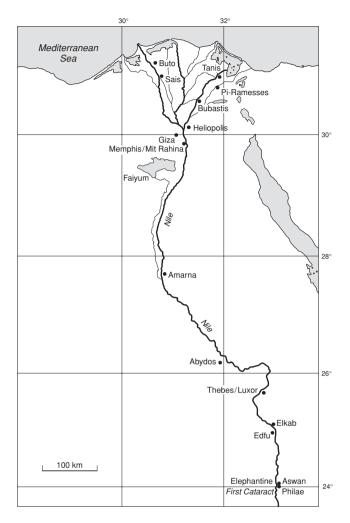
CHRONOLOGY

OLD KINGDOM	2575–2150
FIRST INTERMEDIATE PERIOD	2125-1975
Dynasty XI	2080-1975
Nebhepetre	
Mentuhotep II	
MIDDLE KINGDOM	1975-1640
Dynasty XI	1975-1940
Nebhepetre	
Mentuhotep II	2010-1960
Dynasty XII	1938-1755
Dynasty XIII	1755-1630
Dynasty XIV	
SECOND INTERMEDIATE PERIOD	1630-1520
Dynasty XV	
Apophis	1630-1520
Dynasty XVI	
Dynasty XVII	1630-1540
Sequence II	
Kamose	1545-1539
NEW KINGDOM	1539-1075
Dynasty XVIII	1539-1292
Ahmose	1539-1514
Amunhotep I	1514-1493
Thutmose I	1493-}
Thutmose II	?-1479
Thutmose III	1479-1425
Hatshepsut	1473-1458
Amunhotep II	1426-1400
Thutmose IV	1400-1390
Amunhotep III	1390-1353
Amunhotep IV/Akhenaton	1353-1336
Smenkhkare	1335-1332
Tutankhamun	1332-1322

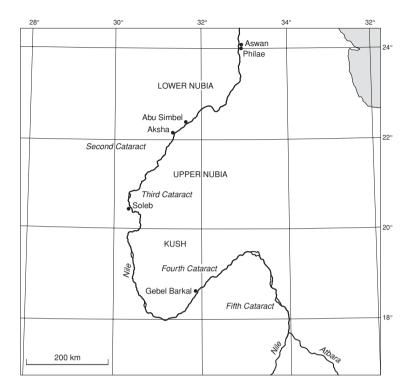
CHRONOLOGY

Ay	1322-1319
Horemheb	1319-1292
Dynasty XIX	1292-1190
Ramesses I	1292-1290
Seti I	1290-1279
Ramesses II	1279–1213
Merenptah	1213-1204
Seti II	1204-1198
Amenmesse	1201 1170
Siptah	1198-1193
Twosret	1198-1190
Dynasty XX	1190-1075
Sethnakht	1190-1187
Ramesses III	1187–1156
Ramesses IV	1156-1150
Ramesses V	1150-1145
Ramesses VI	1145-1137
Ramesses VII	1137–1129
Ramesses VIII	1129-1126
Ramesses IX	1126-1108
Ramesses X	1108-1104
Ramesses XI	1104-1075
THIRD INTERMEDIATE PERIOD	1075-715
Dynasty XXI	1075-945
Dynasty XXII	945-715
Dynasty XXIII	830-715
Dynasty XXIV	730-715
LATE PERIOD	715-332
Dynasty XXV (Kushite)	715-657
Dynasty XXVI	664 - 525

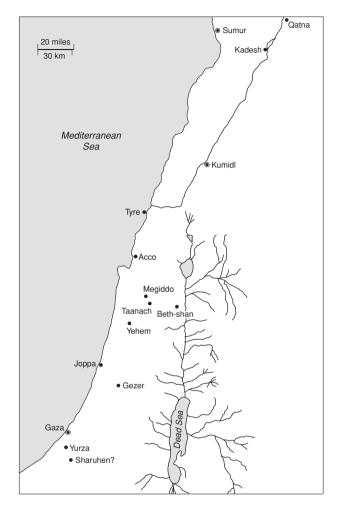
After Atlas of Ancient Egypt, John Baines and Jaromir Málek, New York (2000). Reprinted with permission of the authors.



Map 1 Egypt



Map 2 Nubia



Map 3 Palestine and Syria during the New Kingdom

1

PRELUDE TO NEW KINGDOM WARFARE

The Egyptian Empire, founded at the beginning of the XVIIIth Dynasty ca. 1560 BC, experienced a lengthy period of economic growth and military success. The rapid expansion of the kingdom north into Asia and upriver into ancient Nubia began earlier when the native state was still divided into various realms and the Hyksos, Asiatic foreigners, controlled the north. The latter, of northern (Palestinian) origin, had been able to take over the Egyptian Delta, the age-old capital of Memphis, and a large portion of Middle Egypt upstream to Cusae. The result was that a native ruling house (Dynasty XVII) controlled only Upper Egypt, having its capital at Thebes and its southern boundary fixed at Aswan at the First Cataract. It was during this time, lasting approximately a century, that the Egyptians forged a far more effective means of centralized governmental control over their limited realm. At the same time the war machine of the Theban state had to deal with conflict to the south (Nubia) as well as with a cold war to the north. By and large, the XVIIth Dynasty managed to develop the use of the new military technology of the horse and chariot as well as other improvements in armament, most of which had come into Egypt from Asia at an earlier time. The Hyksos, in fact, had accelerated this trend owing to the weaknesses of the native Egyptian state of the Late Middle Kingdom (late Dynasty XII-Dynasty XIII) which had already lost control of the Eastern Delta. By the end of Dynasty XVII the Thebans felt themselves able to begin fighting in a regular fashion against their opponents on the Nile – both north and south - and it is at this point that significant transformations of the military commenced.

The best way to understand the military system of Pharaonic Egypt at the commencement of the New Kingdom is to analyze the famous war inscriptions of King Kamose, the last Pharaoh of the Dynasty XVII.¹ The narrative was written on two stone stelae and placed within the sacred precinct of the temple of Amun at Karnak. The king expressly commissioned this record to be set up by his treasurer, Neshi, an army commander and overseer of countries, whose figure and name were included at the bottom left of the

inscription. The account lacks a high literary flavor, perhaps because his career was associated with the Egyptian war machine and foreign administration. On the other hand, Neshi's utilization of one important war record, an intercepted letter from the northern Hyksos foe, indicates that he was permitted access to an extremely important diplomatic document captured during the course of Kamose's northern campaign. The war record, although relatively straightforward in style and partly dependent upon a logical progression through time, nonetheless reveals a deep understanding of language and thought. This account presents a lively approach centered upon the key successes of the king, but without any reference to dates. Indeed, the original inscription lacked even a regnal year of the Pharaoh.²

Before delving into the actual sequence of events and how they reveal the military system of the day it is necessary to outline briefly the precise historical setting. At the end of Dynasty XVII Kamose had inherited the war against the Hyksos. He followed his father Sequenere II to the throne of Egypt at a time when the Egyptians had begun to mass their forces against the northern enemy. In a later story centered on Sequenere the latter are considered to be cowardly foreigners, Asiatics. Their non-Egyptian status is, in fact, one of the key elements in this patriotic record. The narrative of Kamose is as clear and organized in its physical aspects as in its nationalistic fervor. The author included royal speeches in order to heighten the dramatic aspect of the king's victories and to break up the separate events that Neshi preferred to write down. The beginning, however, throws one into a common literary setting of king in court, surrounded by his officials, both civilian and military, and his announcement of war.

Because the first stela was later retouched at the beginning of the opening line in order to date the text to Kamose's third regnal year, it is evident that the introductory backdrop serves more as a reflection of mood than of reality. At an unknown time Kamose had called his magnates into his palace for an official proclamation of war.³ We may assume that high officials, including army leaders and naval men, were present. There is a simple sequence of policies. The king argues for war because Egypt is divided; the great men prefer the status quo. Not surprisingly, Kamose is displeased over their pacifistic approach and haughtily rejects their words. He concludes his rejection of the weaker policy with a prediction that after the campaign Egypt will recognize their ruler as a victorious king and a protector. Suddenly the narrative opens, and from then on the first person is employed. At this point the text presents an account as if spoken by Kamose himself. Henceforward, we gain in historical insight what the opening backdrop adumbrates through its stereotypical setting of king versus court.

The type of warfare is not as one might at first expect. It is oriented to the Nile.⁴ The king's flotilla plays the key role in transport. Land battles are not described with any detail and chariot warfare does not play an overt role in the narrative. Kamose, for example, sails downstream and ends up at

Nefrusi, a settlement in Middle Egypt, while his army precedes him. The latter situation may imply that those men traveled by land. If so, they must have left days before the king's fleet. Necessary food supplies were probably brought along with the ship or else secured from the locals. An elite division of the army scoured the countryside for troublesome opponents. Then Nefrusi was besieged and sacked.

The specific type of warfare is barely presented in detail. On the contrary, we first hear of the siege at Nefrusi that seems to have taken place without any immediate opposition. The military encounter actually began the next day following the king's arrival, and from the tenor of the account it appears that the battlefield as well as the timing was prearranged: the Egyptians fought on land in the early morning and achieved success. Clearly, the siege was not as important as the land victory. Immediately afterwards, the Pharaoh traveled further north, frightening off any military opposition to his flotilla. Even though the system of fighting is not minutely described, its manner can be inferred. The Egyptians used their fleet to transport troops. They rapidly took over the enemy's territory owing to this method of transportation. Indeed, if a town or even a city resisted, all that Kamose would have to do is to bypass it and to attack one to the immediate north, thereby isolating the enemy in a pocket that could then be subdued afterwards. Only this can explain Kamose's sudden arrival in the East Delta at the capital of the Hyksos, Avaris, modern Tell ed-Dab'a. How else could he have achieved such a sudden dash north? Owing to the fragmentary condition of the first stela we do not learn of the fall of the key cities in the north. The account of the capture of Memphis at the apex of the Delta, for example, is lost. On the other hand, the isolation of Nefrusi and those regions immediately north of it lends support to the hypothesis that Kamose had sprung his army at a fortuitous time when the foe was unaware of his intentions.

At Avaris Kamose arranged his fleet to lay siege to the Hyksos capital. He places emphasis upon the timber used to construct his ships and taunts his royal opponent in two speeches that very well may reflect the actual situation. That is to say, the war is considered to be a duel, a personal conflict between the Egyptian king and the enemy leader Apophis. The Pharaoh commands his army on his golden flagship, allowing his elite troops to secure both sides of the river at Avaris. But he did not take the city, and, properly speaking, the military account ends the progressive narrative development at this point. The author ceases recounting these virile deeds with the last word of Kamose's second address of taunts to his enemy and instead turns to events preceding the arrival at Avaris.

A flashback is presented, serving as a lengthy coda to the Pharaoh's arrival at the Hyksos capital. In this portion of the second stela we learn that other towns had been burnt and that a messenger of the Hyksos king had been caught on the oasis route to the west of the Nile. That man had with him a crucial letter for the new ruler of Nubia (Kush). In it we learn that upon

hearing of Kamose's move north, Apophis, the Hyksos king, quickly dispatched a messenger in order to effect an alliance with the new king of Kush. This attempt to circumvent Kamose failed. Nonetheless, it tells us that Apophis had learnt of his opponent's strike northward but had not been able to send his troops south. Granted that this is a modern interpretation, it nonetheless explains the apparent failure of Apophis to resist Kamose in Middle Egypt.

The strategy of Kamose is thereby presented by means of this short backdrop. In a separate section following upon the capture of Apophis's emissary, the Theban king indicates that he faced no resistance. This, of course, may be taken as mere boasting, but it reinforces the war account so well that we can suppose that his bragging is relatively free from exaggeration. In this light it is useful to note that Kamose originally sent his troops westward to secure his rear, for he was afraid that his opponent might have launched a preventative attack far away from the Nile in order to trap him as the Egyptian fleet moved north.

Lacking from the extant war narrative is any description of actual fighting. Granted, we have seen that the style of warfare tended to be locally arranged. The fleet moved the soldiers but the actual armed conflict was to take place upon flat ground. As a result, sieges were expected. No chariot encounters are described (as one might expect) nor is there any indication how the native Egyptian army was organized. We have to look elsewhere for these important details. True, Kamose stresses his capture of Apophis' chariots and fleet outside of Avaris, but little else is revealed concerning the make-up of either army.

Let us move a few years later into the reign of Ahmose, Kamose's Theban successor, and see from a private historical account how the Egyptian military operated at this time. The tomb biography of Ahmose son of Ebana, located at El Kab south of Thebes, is our major source for the wars subsequent to the death of Kamose.⁵ Granted that we have to cover significantly more years of warfare, this personal account of valor is very instructive. Ahmose son of Ebana replaced his father in the royal fleet. He was originally a common soldier who, after marriage, officially entered the Egyptian war machine. (Subsequently, he became crew commander.) His narrative is laconic but nevertheless describes the art of war at this time. The king uses his chariot. Avaris is under siege more than once, and Ahmose is promoted to another and more important ship in the fleet. In the East Delta the fighting is hand-to-hand against the Hyksos. More than once in the melee Ahmose son of Ebana brings back either a hand from a dead enemy or a living opponent as proof of success. At the fall of Avaris the hero takes away one man and three women, the latter undoubtedly noncombatants. Yet we hear little of horses and chariots. In fact, there is no overt statement in the text that fast-moving chariots played the major role in warfare at this time; this we have to infer from the account and from the pictorial reliefs of

Pharaoh Ahmose. Even the subsequent capture of the city of Sharuhen by king Ahmose in southern Palestine indicates that the earlier method of sieges had to take place, proving that chariot-based attacks by themselves were not always conclusive.

When Ahmose son of Ebana fought south of Egypt in Nubia the Egyptian fleet stood in good stead. Used again as a means of rapid transportation, the ships carried the Egyptian army until the disembarkation, at which point the soldiers then fought on land. In this case we can assume that the better-equipped and technologically superior Egyptian army was able to repel the enemy with little difficulty. When further warfare was necessary it is not surprising to read of the enemy's ship. This reference to naval affairs must indicate a prepared foe whose orientation was sufficiently similar to the Egyptians, possibly also indicating the presence of a yet remaining Nubian state. Indeed, Ahmose son of Ebana specifically notes that this enemy, Aata by name, moved against Egyptian territory.

The type of warfare within the Nile valley differed considerably from that later encountered in Palestine and Syria.⁶ There were no wide-open spaces available for the deployment of chariots. Nor could such rapid maneuvering and quick attack on land occur. The narrow and rugged Nile valley with its umbilical cord of the great river reduced to a minimum the efficacy of chariots. We can reasonably conclude that the latter sector had yet to receive written emphasis in the war records of Kamose and his immediate successors, Ahmose and Amunhotep I.⁷ Quite to the contrary, a different set-up existed in the Egyptian army just before the creation of the Empire.

In fact, the terminology of the Middle Kingdom (Dynasties XII–XIII) and the outgoing XVIIth was quite different from that employed later. The two major terms employed by the Egyptians of this earlier age were "youths" and "army"/"troops." The last two words are essentially identical. There was a standing army, and it was considered to be a real profession for the youth. The term for "warrior" is derived from the verb "to live," and it designated a footsoldier dependent upon the king, a virile young man. These youths were placed under a commander or a military leader. The latter, considered to be "tutors," led the "youths," who often served in the rowing teams. There is a generic designation for the "youths," a word that literally means a collective group of people, but within a military context it designated a "naval team" or a "detachment."

The ordinary warriors, the footsoldiers, were inferior to the sailors. The naval men, perhaps sharpened by their more difficult service in the fleet, were young officers. Soon thereafter, the Middle Kingdom word for "naval team" replaced the more specific term, "rowing team." Evidently, the two are the same. In the civil fleet the "commanders of the ships" stood over the "tutors of the naval teams," but in the military flotilla the "captains" of the ships directly obeyed the king. That is to say, the "captains" were directly responsible to the Pharaoh. It is thus not surprising that later, at the

beginning of Dynasty XVIII, Ahmose son of Ebana first stresses his naval service as well as his role in following his father in the same function. The flotilla, after all, was the basic military strength during the Middle Kingdom. It was at the direct command of the king and his closest officials, the highest being the vizier who communicated directly to the ship commanders.

The striking difference between Middle Kingdom warfare and that of the later Empire Period is thus self-evident. The army of the former was amphibious, and its foundation was the fleet. Being an officer in the royal navy was especially attractive to the nobility of the day. Especially at the beginning of the XIIIth Dynasty the officers were princes, members of the royal family and representatives of the highest nobility. During this time and later into Dynasty XVII we find the hereditary nomarchs of El Kab who were captains in the navy. Even though members of the military elite could be from the middle classes, the army ranks remained separate and lower than the naval ranks. The elite warriors were those in the royal navy.

But the New Kingdom army around the time of Kamose and Ahmose was undergoing a rapid transformation.8 Consider, for example, the military activity in Asia during the Middle Kingdom and contrast it with the aftershocks of the capture of Sharuhen by Pharaoh Ahmose. Warfare in the earlier age lacked chariots and horses. As befitted the Nile it was water based. Hence, the Egyptians were able to make only sallies or razzias into Asia. They could not easily annex Palestine with their army, which had as its core the navy. Only the creation of a separate and strong division in the land-based army could render conquest permanent. At the time of king Ahmose Egypt was able to be unified but Asia, or at least parts of it, could not be so easily taken. Ahmose son of Ebana, who belonged to the elite of El Kab, finished his career as "commander of the rowing team." Under Thutmose I, the grandson of Pharaoh Ahmose, the navy was no longer called the royal army. By this time the land-based army was the main force with the chariots its core. The navy henceforth played only a supporting role in warfare.

The military society of the New Kingdom and of her neighbors operated within a system different than earlier. The series of additional changes in both offensive and defensive weapons can be seen in the swords (in their various manifestations), spears, and body-armor. Previously, the main weapon was the bow and arrow, intended for long-range combat, in addition to a preponderance of weapons for hand-to-hand fighting. To the northeast in Palestine and Syria there were many fortified cities. The effects of this change would impact upon the Egyptian war machine when it decided to advance into southern Palestine. The soldiers themselves remained Egyptian, although Nubian "mercenaries" are also known as early as the Late Old Kingdom (Dynasty VI) and the First Intermediate Period. But the core of the native state of Thebes in Dynasty XVII was Egyptian, and through their strength the successful, albeit lengthy, wars against the Hyksos occurred. 10

Before proceeding further it is necessary to examine more carefully the term "mercenaries." Scholars normally employ this word when they deal with the non-Egyptians who were members of the army. But this designation is misleading. Mercenaries work for pay; so did the Egyptian troops of the Middle and New Kingdoms. These men, however, sell themselves, or rather their abilities, to whatever state or leader can afford them. They have no national loyalty. The situation with regard to New Kingdom Egypt therefore revolves around the case whether, for example, foreign troops soldiering with the Egyptians could leave at any time if their pay was in arrears or whether they could switch sides. There is no evidence that this occurred. Later, we also hear of captured elite Asiatic maryannu troops in Dynasty XVIII who were brought back to Egypt by the Pharaoh, presumably not as hostages but rather to serve in the army. Here, as well, I do not think that the term "mercenaries" fits them. These Asiatics were well versed with the art of war and so could form a useful permanent contingent within the native Egyptian war machine.

Later, in Dynasties XIX and XX (the Ramesside Period), the Sherden, originally sea raiders in the eastern Mediterranean, performed similar duty.¹² These foreigners appear both in texts as well as in battle reliefs serving the Pharaoh. They also owned plots of land in Egypt, small to be sure, but this must indicate that they had become settled within the Nile Valley. In other words, the Sherden were inhabitants of the land that they served. The males appear to have been organized into separate contingents within the Egyptian army. Indeed, they are connected with various "strongholds," presumably set up by the Ramesside kings in order to continue their separate way of life. The Sherden are also known to have been organized along different military lines than the Egyptians. But they did not remain loyal to their monarchs only for pay. They actually lived in Egypt and belonged to the economic structure of the land. Libvan troops fought in the Egyptian army in the same period, and they too became settled member of the society. I purposely have left aside the additional designation of "elite" Asiatic warriors, or in Canaanite, the "Na'arn." Whether or not these men who served in such divisions during Dynasties XIX-XX were Semites must remain open. But if they were, these soldiers further reveal the polyglot or polyethnic nature of the Egyptian military in the Late New Kingdom.

Owing to these factors, the commonplace term "mercenary" is inappropriate when referring to such troops. They were professionals, as all ancient and modern mercenaries were. But so were the Egyptians. Significantly, we hear of no mercenary takeover of Egypt. This point is crucial. Native rulers of the Nile Valley continued beyond the terminus of the end of Dynasty XX, notwithstanding the political vicissitudes of the day. As we shall see at the close of this work, there was a slow movement of Libyans upward, first into the middle levels of the state (administrative and military), and subsequently, at the end of Dynasty XXI, into the office of king. But even then

this was no "takeover" by a strong band of hardy and well-prepared warriors. What occurred was the domination of a group of clans whose origins lay to the west. No Libyans rebelled against the government and took over the reins of power.

The social and political ramifications of foreign mercenaries cannot be seen in Egypt during the New Kingdom.¹³ Normally, such troops end up being a major threat to the state that they served. Through blackmail, displacement, or supplantation they gain control of the state. In power, mercenaries prove themselves incapable of further development, normally retaining their system of warfare for many years, indeed centuries. The Mamlukes in Egypt provide an excellent example of heroes who never had the interest to alter either their tactics or their weapons.

But the foreigners in the Egyptian army were hired on a permanent basis. They became natives despite their outlandish clothing, social conventions, and, originally, language. To find, for example, Sherden in the middle of Dynasty XX owning parcels of land indicates that they had become cultivators, just as were the rank-and-file Egyptian soldiers. After all, land was the major commodity that provided sustenance and wealth. The real question that we must face is why did the Egyptians hire or use these foreigners. It is not enough to say that these men were able soldiers. Natives could be as well. Perhaps their military preparedness was on a level higher than the Egyptians. This supposition, however, remains moot. We simply do not know how the native soldier was regarded, militarily and socially speaking, in contrast to the foreign one. It may be the case that the population level of the Nile Valley was lower than many assume, and that correspondingly the number of Egyptian soldiers who could be trained to fight was not that large. This assumption will be tested later. Suffice it to say that the increased costs of military administration in Asia at the end of Dynasty XVIII and onward may have exhausted the ability of Egypt to provide larger and larger troop divisions which could set out on a major campaign.

Let us now turn to the military technology at the beginning of the New Kingdom. Chariots and horses were introduced from Western Asia into Egypt. Harfare in Egypt thus came more and more to depend upon the acquisition of equids. True, horses at this time were small and their height up to the withers was on the average 1.40 to 1.50 m (between 13.7 and 14.6 hands). This is based upon data from archaeological data at Avaris dated to the beginning of Dynasty XVIII but also during the late Second Intermediate Period. The famous "Buhen horse" in Nubia was 1.50 m in height at the withers. Recent analysis has revealed that Tell Brak in central Syria was the old center for the development of mules, bred from male donkeys and female horses.

Two types of horses are known from the New Kingdom.¹⁶ The first group, which is called "long-lined," was relatively long with respect to girth. The thoracic cavity was narrow and weak whereas the scapula-ischial bones were