The interest in ancient Egypt is more than a step beyond Verdi's Aida. Some might think looking at the pyramids or having the strange feeling of standing in the tomb of a ruler who lived 3500 years ago is the ultimate goal. Others prefer to have a notion of moral superiority when confronted by scenes of seeming idolitery. Let me assure you the study of ancient Egypt does not only open doors to meet the great minds which generated one, if not the first high culture, whose heritage still plays a role in our daily life. The study of ancient Egypt also provides clues for understanding much beyond Egypt proper. Some of the riddles which have beset the understanding of the eastern Mediterranean, be it Helladic world or the Old Testament, can be cracked with the help of Egyptology. One of them I will talk about today.

Among the traditions which define the Jewish religion, none is more important than the one about the Exodus from Egypt. In the annual celebration of the Passover the miraculous survival from a seemingly hopeless situation by the «Miracle of the Sea» is remembered. The traditions are codified in the 2nd and 4th Book Moses (i.e. Exodus and Deuteronomy). These accounts provided the only information about the «ancient world» for centuries and inspired numerous representations in any artistic genre. In all that time the historicity of the Biblical account was never in question. The journey through the Sinai was repeated in the «greater» pilgrimage, as the account of Father Faber Felix of the year 1452 describes it in dramatic form. The beginning with Heinrich Buntig in 1568 by connecting the Biblical information with the little that was known about the geography of the area.

The exclusivity of the Old Testament as the source of information about the ancient Orient changed fundamentally with the decipherment, first of the Hieroglyphs in 1822 by Jean François Champollion and then the cuneiform writing by Grotefend in 1836. To it came an increasing knowledge of the physical frame of the Exodus account — first
the geography—and beginning in the later 19th Century—the archaeology. What was originally one, because of its isolation absolute tradition, became more and more part of an expanding picture of history. This development led ultimately to two diametrically different attitudes: On the one hand, the traditional superiority of the Biblical tradition was maintained and expanded to the credo of the fundamentalists.

A book like Werner Keller’s «The Bible is right after all» is just one of the many. On the other hand, especially among Old testament scholars and younger Isrraeli archaeologists, such as Eliezer Oren or Israel Finckelstein, stands a continuously increasing number of scholars, who reject any historicity of the events contained in the Biblical Exodus tradition and rather see in it mythical reflections.

Both reactions do not offer a satisfactory answer. The notion that the Biblical Exodus tradition is a myth void of any historical basis means that the fundament of the Jewish religion is a figment of literary imagination. That literary fiction has had the power to inspire people through 3-1/2 millennia is unthinkable. Only the reality of an experience can cause this. This means, in other words, the Biblical traditions ought to mirror (in some way) historical events.

Let me say immediately that this does not mean that the Biblical traditions constitute historical accounts. The Bible, as we know it, is the product of long and complex developments. Since more than 150 years it is known that at least four originally different traditions are the basis of the Bible text. When these traditions emerged, and how they became the form familiar to us, are topics of endless academic discussion. For us it is at this point important to note that the Biblical Exodus traditions reflect history without, however, being a historical report, but rather being «literature» containing historical reflections.

From this realization result compelling consequences for a study of the events which are behind the Biblical traditions, especially the separation of religious and historical aspects. Under these preconditions we can now turn to the question of the historical core contained therein.

We can commence with the thesis that the Exodus event got its lasting significance because it affected a specific group of people. In the Biblical tradition the members of this group are called the «Children of Israel», or bene israel. In this designation «Israel» does not refer to an ethnic entity, but is according Genesis 32:29 the honorific name, which Jacob received after his religious experience in crossing the river Jabok. Two important facts result from this:

1. «Israel» is a religiously motivated designation of an individual, and
2. the specific religious orientation of this individual was continued by his successors. In other words, the bene Israel, the later israelites, have as their distinctive feature their religious attitude and are not to be envisioned as «folk» in the sense of ethnology.

In the report about the events which preceded the Exodus of the «Children of Israel», and also during their move, are named several features which are not of ordi-
nary nature, especially not for Egypt, the region where the happenings are localized. Among them is especially the repeated mention of «darkness». Further, the ash-rain in Ex 9:10, where the text says «every one of you shall take a handful of ashes…and shall throw them towards heaven. It will become a fine dust over the entire land…» To be added is the «column of smoke by day» and the «column of fire by night», which was in front of those people moving in a northerly direction. The culmination is undoubtedly in the so-called «Miracle of the Sea» when a wave of water drowned the troops of Pharaoh. These various features, and there are others as well, have been for a long time considered as volcanic in their nature. Old Testament scholars thus assumed a volcano in the Sinai Peninsula, where, however, none is known to the volcanologists. Others referred to a volcano in the Arabian Peninsula, where there has been one, but which has not been active for at least 20,000 years.

Since neither Egypt nor Palestine have volcanoes, it is necessary to extend the perimeter of the investigation and to include the entire eastern Mediterranean basin. This region was affected around 1500 B.C. by a major natural catastrophe, which lasted over a half century and which reached its climax in the explosion of the island of Thera/Santorin. It has been calculated that on this occasion approximately 16 cubic kilometers of matter blew into the air, after the volcano had been dormant for more than 15,000 years.

It was almost 70 years ago that the Greek archaeologist Spiridion Marinatos promulgated for the first time the thesis that Thera has had a decisive impact on the Helladic cultural region. It took 30 years before his thesis could be tested. Within a few days the excavations at Akrotiri on the island of Thera not only substantiated the thesis of the decisive impact of the volcanic explosion, but also showed that there had been two destructions, one primarily seismic and one the actual explosion. Between the two events was a period of relative calm of approximately half a century. Marinatos dated the first destructions around 1550 B.C. and the great explosion around 1500 B.C. He saw in the latter the event which brought an end to the Minoan civilization, opening the door for the ascent of the Mycenaean culture, which eventually led to the ancient times of Greece. Since this original interpretation the cultural development in the Helladic world has taken on a somewhat more complex rhythm, which, however, should be left to the specialists in their field.

More than 20 years prior to the archaeological confirmation of Marinatos’ thesis began the geological, and following them a variety of scientific investigations of the eastern Mediterranean for effects of the Thera catastrophe. The investigations by the sediment geologists established three important facts:

1. the great volcanic catastrophe affected the entire eastern Mediterranean region.
2. this event happened approximately 3500 years ago.
3. no other event of comparable dimension occurred between 1750 and 1200 B.C.

When there had been a cataclysm of gigantic dimensions the next question has to be in how far it can be traced in other parts of the eastern Mediterranean basin. In
Sardes in Anatolia a thick layer of volcanic ash has been found. Ash has been discovered in substantial amounts in Cyprus, in Rhodos and Karpathos. In Israel tephra has been found in excavations especially near Gaza. It was of special importance to establish a connection between the Thera explosion and Egypt because the latter has the best established chronological system of the ancient Near East. Inspired by me, Dr. Daniel Stanley of the Smithsonian Institution in Washington, was able to trace volcanic ash from Santorin in the eastern Nile Delta. With this discovery it was established that the ash-rain of the Santorin explosion had reached Egypt’s northeast. Following this first discovery, substantial amounts of tephra from the Santorin explosion have been found in the Austrian excavations at Tell ed-Da’ba in datable archaeological context. According to it the volcanic material, whose origin from the Thera explosions is beyond any doubt, dates to +/- 1475 B.C.

An additional result of the discovery of volcanic ash has to be mentioned here on account of the size of the ash sherd, namely 20-40 mmicrons, it can be calculated that the cloud of the eruption reached a height of more than 70 kilometers. In order to be visible from the Nile Delta over the curvature of the earth, the cloud had to be at least 45 kilometers high. Consequently, it can be considered as certain that the reflection of the Thera explosion was visible from Egypt.

In view of the consistent physical evidence the question for reflections of the volcanic catastrophe in Egyptian written sources has to be considered next. There are altogether four hieroglyphic texts, which mention a natural catastrophe affecting Egypt and which timewise fall into the time-frame established by the geological, volcanological and Helladic archaeological evidence. Two of them date to the year 1542 B.C. One of them is almost contemporary with the natural disaster. It is written on the front of a rock-cut shrine, to the so-called «Speos Artemidos» (in Arabic instable Attar) somewhat south of Beni Hassan, which Hatshepsut, the woman in the throne of Egypt, had made. It is dedicated to the goddess Pachet as an expression of gratitude, that «she had opened the paths for the water torrent in order to catch the water – without drowning me.» This reference to a water torrent, which passed near Hatshepsut’s realm without causing harm, cannot refer to a cloudburst in the desert, since this would not have constituted any danger for Egypt. The same text speaks also about the necessity to put up artificial lighting in cult places, as well as about the evacuation of cults in the very north of Egypt. In the closing section of the long text Hatshepsut emphasizes the divine support which she enjoyed against anyone who would oppose the integrity of her rule. As a warning for any potential opposition she points to the face of a group of people «who neglected the tasks assigned to them.» About this point she says in an explanatory translation, «When I came as constitutionally crowned king (i.e. Horus), I threw fire against my opponents. I removed the ‘abomination of the gods’ (i.e. people who had deserved the death penalty for their deeds) and ‘the earth removed their footprints’ by a wave of the Sea which penetrated inland.»

The formulation might sound somewhat strange, but for some familiar with ancient Egypt literary formulation, it can be recognized that under Hatshepsut, namely in her 7th regnal year, i.e. 1473 B.C., a natural catastrophe occurred which affected Egypt marginally. Two details in her account are especially significant:
1. The prevailing of darkness during the day, and
2. The intrusion of a ‘water torrent’ which missed the pharaonic realm narrowly, while its bulk run off harmlessly into the area east of Egypt’s border.

According to oceanographical calculations the floodwave or tsunami created by the explosion of Thera hit Egypt in the area of Pellusium, i.e., approximately at modern Port Said.

Hatshepsut’s inscription mentions a group of people of Semitic extraction, who had been in Egypt as temporary residents (in Egyptian shemaw). They were expelled from the pharaonic realm, because they had not carried out the tasks assigned to them. Although they would have deserved the death penalty, they were allowed to leave, but the Sea caused that ‘their footprints were removed from the earth.’ These indications conform remarkably with those of the Biblical tradition about the departure of the «Children of Israel» from Egypt, provided one takes the different points of view into account.

A dating of the Exodus in the year 1473 B.C. conforms with the inner chronology of the Bible, according to which Solomon’s temple was built 480 years after the departure from Egypt. Solomon is placed by some scholars around 1000 B.C. which fits remarkably well. Nevertheless, Old Testament scholars hold largely the notion that the Exodus occurred during the reign of Ramesses II (1290-1224 B.C.) after the «Children of Israel» were drafted for the building of the royal residence. In order not to bother you with all the arguments, the most important will be focussed on. In an inscription of King Merenptah, Ramesses’ successor, a group of people named «israel» is mentioned among problems the Pharaoh had to deal with. In order to have such significance Israel had to have been of a significant size. This needs time, especially under the medical conditions of the ancient Orient, where one estimates a maximal population increase of 1 - 1-1/2% per generation. Between the Exodus date of 1473 B.C. and the mention in the inscription of Merenptah of 1219 B.C. are almost 250 years, which would suffice for a substantial population increase. However, for the 13th century B.C. there exists no indication of any kind of natural catastrophe in the Mediterranean region of the size suggested by the description of the «Miracle of the Sea».

Out of a multitude of tiny mosaic chips a picture can be assembled, which matches the indications contained in the Biblical tradition as well as all the data provided by historical and scientific research. People of Levantine origin existed especially at Egypt’s eastern border region after 1790 B.C., at some time in substantial numbers. Their presence was established especially by the Austrian excavations at Tell ed-Da’ba. Despite their origin in the Levant those people are in all probability not identical with the «Children of Israel» who rather seem to have been a small group which came to Egypt around 1500 B.C. and there entered the Pharaonic service. This explains why they needed Pharaoh’s permission to depart from Egypt. The mention in the Bible that they had been in Goshen points to the Wadi Tumilat, where the presence of Levantines/Canaanites can be demonstrated for the time in question. It is possibly only a coincidence, but at my excavations at Tell el-Rataba in the Wadi Tumilat the place’s fortification walls consisted of bricks made not with straw as is typical for Egyptian mud-bricks, but without it, reminding one of a tiny detail in the Biblical account.
When those people who according to the Bible had been in Egypt for two generations wanted to leave their employ and the land, they had a specific goal, namely to return to Mamre near Hebron, where Abraham had acquired a mizpa, or burial place. From Egypt there was and still is only one road there, which runs in the northeastern Delta along the present Lake Menzaleh, and which at that time was open water. In Egyptian it was called «Sea of Reeds» which is the same as the *iom suf* in the Biblical account. This «Sea of Reeds» was mistakenly identified as the Red Sea which has nothing to do with the Exodus story. Geographically, the Red Sea is a very deep furrow and there is no point where it could possibly be crossed by foot, not even during the strongest storms, as come people tried to imagine.

When the departing ones noticed that they were pursued, which could only mean something unpleasant for reasons which are detailed in Ex. 11:2, they did what in my opinion anybody, especially someone with military experience, would do in such a situation: they left the road for a place suitable for defending themselves. In an area which is totally flat the only existing elevation had to appear ideal for this purpose. It rises approximately 14 meters above the plain which is open to the North to the edge of the water. The maps identify it as Tell Hazzob.

As I see it, the «Children of Israel» stood on this ridge, while the Pharaonic unit which had followed them remained in the plain during the initial confrontation about what would happen the next day. This next day never came, because during the night the Sea invaded and those located in the flood plain perished, while the elevatedly located «Children of Israel» survived. When it became light again, the pursuers have been destroyed, but alas the fear from the Sea was such that one did not continue the intended path to Memre, but after a turn ran away from the Sea into the desert –i.e. into the Sinai. It is hardly an accident, that the only semitic inscriptions in the Sinai Peninsula date to the reign of Hatshepsut. They are, however, not at St. Catharine and the Gebel Musa, but some 90 kilometers north at Serabit el Khadim where there had been a Pharaonic outpost for a long time.

That all this happened in late spring results not only from the Biblical tradition of the Pessa-lamb, but also from the food storage situation established by the excavations on Thera. The storage bins were practically empty, which indicates that the next harvest was not too far away. Much could still be said, but these are mostly academic arguments which support what I told you by refuting contrary arguments. They demonstrate that all indications available for the historian come together in one point –and that is the late spring 1473 B.C. as the date of the volcanic explosion of Thera. The tsunami it created is the water which in the «Miracle of the Sea» saved the «Children of Israel» in a desperate situation.

Egyptological research established two points of significance whose importance goes far beyond the confines of Egyptology. One is the demonstration that the Biblical traditions reflect historical realities, without being a history book. The other is the establishing of a chronologically firm point for the great natural disaster in the eastern Mediterranean basin which affected especially the Helladic world, such as Minoan Crete and the Mycenean society, but beyond it the entire Levant and Egypt.
In this year of Don Quixote, as the great Knight-romancer is called in Britain, it seems not unsuitable to make some comments on the literary products of ancient Egypt, some of which might well have come from the fertile imagination of the hero of La Mancha.

Many of the non-religious texts which have survived in papyrus copies since antiquity are generally classified as ‘The Literature of ancient Egyptians’. I should not wish to dispute this appellation, but I should like to raise some questions about this body of writings. The questions are very general, but may not be susceptible of simple answers. The idea of ‘literature’ assumes that there is a literate public, the members of which are not only capable of reading what is written, but also in the habit of reading for pleasure and instruction. The compositions to be considered are written in the cursive scripts of hieratic and demotic, and are usually composed in the forms of the Egyptians language contemporary with the time of writing, but not necessarily with the time of the events described in these compositions. In nearly all cases of surviving literary texts, the circumstances of discovery are unknown, the papyri having been excavated illicitly and made available through the antiquities trade. A kind of exception may be made of the fine and complete document containing the Contendings of Horus and Seth which certainly has a Theban provenance, and is now thought to have been found in the workmen’s village at Deir el-Medina; and similarly the incomplete papyrus text of Truth and Falsehood, also part of the postulated Deir el-Medina ‘library’\(^1\). To talk of libraries, however, is greatly to inflate the status of what may have been a small personal collection of copies of literary and other texts, and in no way to be compared with the deposits of religious texts held in the great temples, and the

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\(^1\) For a useful assessment of possible ‘libraries’, see D. VALBELLE, *Les ouvriers de la Tombe. Deir el-Médineh à l’époque ramesseïde* (Cairo, 1985), 338f.