

EASY READING

LIFE ON CRETE

(Phaistos Disc, c.1458 BC)

Dr. R.M. de Jonge ©, drsrmdejonge@hotmail.com

SUMMARY

The Phaistos Disc possesses 45 different symbols, and a total of 242 signs. Each sign has a meaning and a passage number, which is situated at the start of one or two series of passages, finishing with the powerful King, or Queen. This encodes for almost each sign a total number, because the length of the series of passages determines the number of figures of it. However, each symbol may have different meanings, dependent on its position on the disc, on front or back side, and on inner part or edge. The signs may represent the yearly production of goods, and the number of people (men and women) making these, but also valuable objects. In this way we discovered, that c.6,000 people made c.30 ships per year for a Fleet of c.150 ships, maintained by c.7,400 men and women. The total number of people encoded in this way, equals the population of Crete, c.140,000 men. The disc turns out to give a very accurate description of daily life on Crete at the end of the New Palace Culture, c.1458 BC.

INTRODUCTION

In prehistoric times Crete developed a completely own identity, often called the Minoan Culture (c.2500-1100 BC), after the legendary King Minos (Ref.10). Around 2000 BC the first palaces were built at Knossos, Phaistos and Malia, which were completely destroyed c.1700 BC, probably as a result of civil war (Ref.6). For that reason one speaks about the so-called Old Palace Culture (c.2000-1700 BC). Next, these and other palaces were rebuilt again, followed by a new period of prosperity. However, c.1450 BC a general and similar destruction took place, which marked the end of the New Palace Culture (c.1700-1450 BC). After this event the palaces were not rebuilt again.

The Palace of Phaistos was built at the west side of the southern Mesara plain, one of the most fertile plains of the eastern Mediterranean. It had a threefold function: economical, political, and religious. In big quantities goods were delivered to the palace, which resold these goods via her administration. In exchange the authorities took care for good government and a religious identity. It is clear this situation could supply prosperity and stability for a long time, even for centuries. (Refs.1,3,8,11,12)

PHAISTOS DISC

The Phaistos Disc is an old, round, ceramic disc with at both sides many symbols resembling hieroglyphs (Ref.9). It was found in the ruins of the Palace of Phaistos in southern Crete, during a local excavation directed by the Italian archaeologist Luigi Pernier in 1908. The disc, having a diameter of 16 cm (6 inches), possesses a unique Minoan script, and turns out to date from the end of the so-called New Palace Culture, c.1458 BC (Ref.2). It is on display in the Archaeological Museum of Heraklion (Figs.1-3).

On both sides of the disc the symbols were applied one after the other in the shape of a spiral, at which the series of symbols were separated from each other by a continuing spiral-

shaped line. The linear arrangement of the signs points directly to a script (Ref.5). Between the spiral-shaped lines are small pieces of line at right angles, obviously deviding the text into "passages".

When looking from the edge towards the center of the disc, the majority of the signs are in an upright position. As a consequence, we should consider the text in this direction, and not the other way around. When following the signs from the center along the spiral to the outside, the vast majority of people and animals look to the front. As a consequence, we should read the text in this direction (counterclockwise), and not the other way around. In Figs.1&2 the passages are numbered in this direction, for easier identification. At some sections of the spiral (passages), the first symbol is accented with a slanting piece of line at the bottom. Obviously, this piece of line shows that here a new paragraph is starting.

Many investigators called the face starting with the "flower" (#38) in the center the front side, or side A. This side has the highest number of symbols, passages, paragraphs, and turns of the spiral. As a consequence, the other face is than the back side, or side B. This suggestion turns out to be correct (Ref.5). Finally, both sides of the disc consist of two different parts, which is not directly obvious. As can be seen in Figs.-1&2, each side consists of an Inner Part and an Edge. This distinction plays an important role in decoding the Disc. - The Phaistos Disc contains an ideographic script, independent of any language. The script has been deciphered, and turns out to describe the religion of Crete (Refs.2,5).

SIDE A OF THE DISC
WITH PROGRESSIVE
NUMBERING
OF THE INDIVIDUAL
SIGN SETS.



Fig.1 Front side A of the Phaistos Disc
(Crete, c.1458 BC) (Courtesy L. Godart, Ref.9)

SIDE B OF THE DISC
WITH PROGRESSIVE
NUMBERING
OF THE INDIVIDUAL
SIGN SETS.



Fig.2 Back side B of the Phaistos Disc
(Crete, c.1458 BC) (Courtesy L. Godart, Ref.9)

TABLE OF THE SIGNS OF THE PHAISTOS DISC

1		10		19		28		37	
2		11		20		29		38	
3		12		21		30		39	
4		13		22		31		40	
5		14		23		32		41	
6		15		24		33		42	
7		16		25		34		43	
8		17		26		35		44	
9		18		27		36		45	

Fig.3 Table of the signs of the Phaistos Disc
(Crete, c.1458 BC) (Courtesy L. Godart, Ref.9)

DATE OF THE DISC

The front side has 31 passages, corresponding to the northern Nile Delta, at 31°N, and the back side has 30 passages, corresponding to the southern Nile Delta, at 30°N (Figs. 1&2). So, the Phaistos Disc strongly emphasizes the ties of Crete with nearby Egypt, the greatest civilization on Earth (Refs.13-17). Both sides of the disc have an Inner Part and an Edge. The inner part of each side contains 18 passages, twice encoding the important 18th Dynasty of Egypt, at the start of the New Kingdom, which lasted official-ly from 1580 to 1314 BC.

On the front side the most important phrase of the disc, "The Theory of the Holy Kings of Lower and Upper Egypt", occurs in passages A3 and A15, together forming $3+15=18$ units, again confirming the 18th Dynasty (Refs.2,5,7). On the back side the "Queen" (#6) occurs in the similar passages B3 and B15, together forming $3+15=18$ units, once again confirming the 18th Dynasty of Queen Hatshepsut. So, it has been indicated four times, that the disc has been made during this Egyptian dynasty.

The unique Disc of Phaistos was found in the ruins of an abandoned Minoan palace. The text starts in the center of the front side with a cry of emergency (Fig.1, A1-4, Ref.5): "Please, proclaim loudly, and spread by force of law, the Theory of the Holy Kings of Lower and Upper Egypt. Please, proclaim it loudly." This first paragraph shows exactly when the Phaistos Disc was made: at a severe political crisis, at the beginning of a civil war. It marks the end of the so-called New Palace Culture of the Cretan Civilization, which is well-known in the archaeological literature. So, the date can be narrowed down to 1450 ± 10 BC.

The numbers of passages on both sides of the Disc also turn out to represent years of generations. The front side appears to correspond with a first generation of 31 years (31 passages), and the back side encodes a second generation of 30 years (30 passages). So, as far as history is concerned, the back side describes a more recent time period (Ref.6). The 30 passages of the back side may represent the 30 years of the last generation, before the civil war.

The last symbols of passage B3 are a "Queen" (#6) and a "King" (#2). Apparently, the passage represents the end of reign of Queen Hatshepsut, in 1485, and the start of King Thutmose III. After passage B3, there are $30-3=27$ passages left. So, the Phaistos Disc has been made in the 27th year of government of Thutmose III. He is shown in the last passage B30, which represents the year of $1485-27=1458$ BC.

So, at the start of the civil war in Crete, the 18th Dynasty in Egypt, and the New Kingdom, lasted from 1580 to 1458, which is 122 years. Apparently, these years are represented by the 122 symbols of side A (dropping the 1st symbol, the "flower").

Passage A24 also contains a "Queen" and a "King". So, also this passage turns out to represent the end of reign of Queen Hatshepsut, in 1485, and the start of King Thutmose III. After the "Queen" and her "shield" are 27 symbols, confirming the Phaistos Disc has been made in the 27th year of government of Thutmose III. He is shown as the last symbol of passage A31, which confirms the year of $1485-27=1458$ BC. (Ref.2)

POPULATION OF CRETE

In the first paragraph on the front side (Fig.1), the symbol of the "ordinary man" (#3), is mentioned twice. He is placed in the center of passages A1 and A4. This means there were 140,000 people on Crete, because a factor 10 smaller or greater would be in both cases unprobable, in view of the size of the island. In passage A2 is a "messenger" (#1), who confirms the 2 numbers (1 and 4), and in passage A6 is a "messenger", and even a "King", who confirm this number has to be written down in 6 figures. (Ref.3)

On the back side (Fig.2), the first "messenger" (#1) is found in passage B14, clearly confirming the population of Crete of 140,000 men. In the next or 2nd passage B15 is a "Queen", who confirms the 2 numbers (1 and 4), and in passage B19 is a "messenger" (instead of a "King"), who confirms this number should be written down in $19-13=6$ figures (In c.1458 BC there was no "King": it was the cause of the civil war!)

In total, the disc contains two "palaces" (#14), Knossos and Phaistos, and six "temples" (#24), referring to Hagia Triada and Pyrgos (near Phaistos), Malia, Zakros, Kydonia (or Chania), and Tylissos (Figs.1&2) (Ref.3). The numbers of people apparently living around these places (according to the disc) are shown in Table 1. Their total number is c.140,000,

again.

TABLE 1

POPULATION DATA OF CRETE, c.1458 BC,
ACCORDING TO THE PHAISTOS DISC

140,000	Crete (from disc)
60,000	Knossos (2007 BC) (50,000 estimated*)
16,000	Phaistos (1976 BC), Hagia Triada, and Pyrgos
20,000	Malia
19,000	Zakros
20,000	Kydonia (Chania)
6,000	Tylissos (about 5,000)
141,000	Crete (total and check)
270,000	Crete, 1574 AD*
480,000	Crete, 1961 AD

* According to archaeological research

DATA ABOUT SHIPS

Production of Seaworthy Ships

The disc has two sides with a total of $31+30=61$ passages, which correspond to a time period of 61 years. So, each passage corresponds to one year. This statement appears to be important, because it suggests that the production of these ships will be expressed in units per year, which sounds reasonable. (Ref.4)

A18 on the front side, having a “ship”, is situated at the start of a nice series of 2 passages, finishing at the end of the paragraph, which is also the end of the inner part. This series encodes a production of 18 seaworthy ships per year (18, written in 2 figures). Note, that the edge of the disc is symbolic for the coast of Crete! A12 can also form 2 passages, finishing with the “King”, who possesses many ships, and with the “falcon”, symbol of God. This series encodes 12 ships per year (12, written in 2 figures). We have to add these quantities. So, added up, Crete appears to produce $18+12=c.30$ seaworthy ships per year.

On the back side passage B2 is at the start of 2 passages, finishing with the powerful “King”, who possesses many ships. This series encodes a production of 20 ships per year (2, written in 2 figures). B9 forms 1 single passage at the end of the paragraph, encoding 9 ships per year (9, written in 1 figure). Added up, it is confirmed the island produced $20+9=c.29$ seaworthy ships per year.

People assembling ships

The boat in passage A12 on the front side points to a “messenger” (#1) in A6, which indicates number of people (men and women). The boat in passage A18 points to the last symbol of A9, which is a “King”. So, passage A6 with the messenger forms a series of $9-5=4$ passages, finishing with this powerful “King”, for whom it is all done. It encodes 6,000 people (6, written in 4 figures), who were involved in assembling these seaworthy ships.

In passage B6 on the back side the “square” (#18), or carpenter's triangle, touches a ham-

mer. B6 also forms a series of 4 passages, finishing with A9 at the end of the paragraph, where the boat touches the hammer, again. This series does not contain a “messenger”, but it confirms the number of 6,000 people (6, written in 4 figures), who were involved in making the seaworthy ships.

The Fleet of Crete

The edge of the disc is symbolic for the coastal waters of Crete. So, the boats on this edge will provide information about the size of the fleet, which is anchored there. Counted a-long the edge (E) boats appear in passages E1, E4, and E9. So, Crete possesses a fleet of c.149 ships. From the scarce data about this subject, it is well-known that the Fleet of Crete was impressive in this time period, c.1458 BC (Refs.10-19).

People working on the Fleet

One may wonder, how many people are working on this fleet. The symbol of the “messenger” appears in passages E1, E5, and E6, counted along the edge, again (side B). Note, that the boat in E1 touches B10, ending with the sign of “religion” (#22). So, passage E1 with the messenger and the boat will form a series of 4 passages, finishing with another boat and this sign of religion. It encodes 1,000 people (1, written in 4 figures), working with these ships. E6 with the messenger also forms a series of 4 passages, finishing with a boat and the sign of religion at the end of the paragraph. It encodes a number of 6,000 people (6, written in 4 figures). Note, that this boat touches B16, pointing to a fish.

Finally, E4 with a boat and the sign of religion forms a series of 3 passages, finishing with the fish and a messenger at the end of the paragraph. It also contains passage E5 with another messenger. This series encodes 400 people (4, written in 3 figures), working on the fleet. So, added up, a total number of $1,000+400+6,000 = c.7,400$ people are working on these ships. It is a rather round number, which is encouraging. On the average $7,400/149 = c.50$ people (men and woman) are working on each seaworthy ship, which sounds reasonable. (Ref.4)



Fig.1 The front side of the Minoan Pendant (Ref.21).
(Cleveland, Ohio, c.1690 BC) (Courtesy Ancient American, Vol.13, No.83)



Fig.2 The back side of the Minoan Pendant (Ref.21).
(Cleveland, Ohio, c.1690 BC) (Courtesy Ancient American, Vol.13, No.83)

OTHER DATA ABOUT DAILY LIFE

Important information has been obtained about the Population of Crete, and about Seaworthy Ships. However, similar data can be obtained about all other subjects of daily life on the island, using the same method. These data are collected elsewhere (Ref.4), and shown in Table 2. The subjects include Fishery, Cattle-breeding and Agriculture, Government in the Palaces and Temples, Education & Religion, Business, Health Care, Funerals, and Woodworking Industry.

Table 2 provides an overview of all the information encoded on the Phaistos Disc related to daily life on Crete at the end of the New Palace Culture, c.1458 BC. In seven cases the numbers of different objects are given (ships, lower and higher schools, bee-hives, vine-tendrils, olive trees, and pets or cats). The yearly production of 14 different kinds of goods are shown, 3 of these for the export (wine, olives, and wood), all expressed in natural units per year. For 17 functions of the government, 8 functions in education & religion, 3 in health care, 3 around funerals, and 7 functions in other areas, the numbers of people (men and women) are given, who are working in these jobs. For 28 different kinds of goods, and 7 of these for the export, the numbers of people are provided, who produce these items.

We should realize, that all numbers of people relate to both men and women. This means,

that the numbers of people, who are really working in the mentioned areas, are probably about half of these listed in Table 2. The majority of the women probably stayed at home. The numbers of prisoners and prostitutes are also given. Finally, the number of children on Crete are shown. The total number of people calculated from Table 2 amounts to c.-140,622 (or maybe as high as c.141,045). As shown in Table 1 the disc indicated a total number of inhabitants on Crete of c.140,000 (or maybe as high as c.141,000). So, as far as the total number of people is concerned, the list is quite accurate. (Refs.4,20-22)

DESCRIPTION OF CRETE

According to Table 2, there were 73,000 olive trees, 93,000 vine-tendrils, and 3,000 bee-hives on the island. About 18,000 people (12.9%) worked for cattle-breeding (most of them, 12.2%), fishery (0.3%) and agriculture (0.4%). The importance of cattle-breeding is really striking. However, seafishery was also important because people consumed 19 sea-fishes per person per year. - It appears that pets (or cats) were popular, because at least 11% of the population owned a pet (c.16,000 pets).

About 27,000 people (19.2%) worked for the government, including 15,000 (more than half of them, 10.7%) in the administration. Crete was a peaceful nation, because only 380 men (0.3%) worked for the production of defensive weapons (spears, bows and arrows) (Refs.28-33). About 1,100 people (0.8%) worked for the police, with 2,700 men (1.9%) in prison. During the last generation the number of prostitutes was relatively high: 4,500 women, which was 6.4% of the female population.

Education was well organized, but there were 28,000 children (19.9%) and 11,500 pupils and students (8.2%). So, only 29% of them visited a school. About 1,200 teachers (0.9%) were active in 100 primary schools and 25 high schools on Crete. An additional 430 people (0.3%) had a religious task, including co-workers of funeral services. - Health care was also present. About 7,500 people were active in this important field, which is 5.4% of the population.

Industry was very important on Crete. About 20,000 people (14.2%) worked in all kind of firms for consumer goods. An additional 4,250 people (3.0%) contributed to the production of art. Many beautiful pieces of art are found by archaeologists (Figs.1&2). - However, the woodworking industry was really famous on the island: an incredible 17,700 people (12.6%) worked in this branch. For this purpose 15,000 trees were cut each year, most of these cypresse. Note, that the majority of these people, 13,800 men (9.8%), worked for the production of the Fleet of Crete, which consisted of 150 sea-worthy ships. (Refs.18,19,28-33)

Production

Society on Crete in 1458 BC was highly efficient, as shown by the following examples:

A professional fresh water fisher caught c.10,000 fishes/year.

A seafisher caught c.6,750 fishes/year.

A cattle-breeder of big hooved animals slaughtered c.22 animals/year.

A cattle-breeder of small hooved animals slaughtered c.100 animals/year.

A poultry-breeder slaughtered c.591 fowls/year.

A bee-keeper had c.10 bee-hives.

A wine-farmer had c.1,110 vine-tendrils.

An olive farmer had c.533 olive trees.

Each employee produced c.10 spears/year.
 Each employee produced c.10 bows and arrows/year.
 Each employee produced c.10 harpoons/year.
 Each employee produced c.54 music instruments/year.
 A woodcutter hacked (and transported) c.50 trees (cypresse)/year.
 Crete produced c.30 seaworthy ships/year.
 Each seaworthy ship had a crew of c.50 men.

Export

Export on Crete was highly important, as shown by the following examples:
 It is probable, that the honey from 1,500 bee-hives (50%) was exported, a.o. to Egypt.
 Wine from c.20,000 vine-tendrils (22%) was meant for export.
 Olives from c.23,023 olive trees (32%) were meant for export.
 11% of the bronze production was for export. (Refs.28-31)
 60% of the production of hides and clothing was for export.
 29% of the jewels were made for export.
 16% of the (cypresse) trees were cut for export.
 60% of sawed wood was for export.
 63% of planed wood was for export.

TABLE 2

DATA ABOUT DAILY LIFE ON CRETE, c.1458 BC,
 ACCORDING TO THE PHAISTOS DISC *

§4.1 SHIPS

c.30 seaworthy ships produced/year, A/B.(IP), #25
 c.6,000 employees assembling ships, A/B.(IP), #1,#25
 c.149 seaworthy ships, Fleet of Crete, B(E), #25
 c.7,400 people working on ships, B(E), #1,#25
 c.13,400 = Total Number of people

§4.2 FISHERY, CATTLE-BREEDING, AND AGRICULTURE

c.450,000 fresh water fishes caught/year, A/B.(IP), #33
 c.45 professional fresh water fishers, A/B.(IP), #33
 c.2,700,000 seafishes caught/year, A/B.(E), #33
 c.400 professional seafishers, A/B.(E), #33
 c.280,000 big hooved animals slaughtered/year, A(IP), #28
 c.12,700 cattle-breeders of big hooved animals, A(IP), #28
 c.400,000 small hooved animals slaughtered/year, B(IP), #30
 c.4,000 cattle-breeders of small hooved animals, B(IP), #30
 c.260,000 poultry slaughtered/year, A+B, #32
 c.440 poultry-breeders, A+B, #32
 c.3,009 bee-hives, A+B, #34
 c.300 bee-keepers, A+B, #34
 c.73,000 vine-tendrils for interior use, B(IP), #36
 c.20,000 vine-tendrils for export, B(E), #36
 c.84 wine-farmers, B, #36
 c.50,000 olive trees for interior use, A(IP), #35,#12
 c.95 olive farmers, interior use, A(IP), #35,#12

c.23,023	olive trees for export, A(E), #35,#12
c.45	olive farmers, export, A(E), #35,#12
c.5,980	homeless pets (cats), A(E), #29
c.16,000	pets (cats), B(IP), #29
c.18,109	= Total Number of people

§4.3 GOVERNMENT IN THE PALACES AND TEMPLES

2	Heads of State: King or Queen, B(E), #26, #2
c.11	ministers, B(IP), #45
c.1,000	senior officers, B(IP), #45
c.7,000	officers, B(IP), #45
c.460	co-workers of internal policy, A(IP), #26, #31
c.23	co-workers of foreign policy, A(E), #26, #31
c.224	co-workers of intelligence service, B(E), #40
c.15,003	co-workers of administration, A(IP), #37
c.550	co-workers of judicature, A(E), #45
c.29	judges, B(E), #45
1	urban head of police, B(IP), #13
c.200	urban police sergeants, A(IP), #13
c.600	urban police officers, A(IP), #13
2	rural heads of police, B(E), #13
c.23	rural police sergeants, B(E), #13
c.310	rural police officers, A(E), #13
c.4,500	prostitutes, B(IP), #6 (average: c.2,300)
c.2,700	prisoners, A(E), #4
c.1,053	co-workers of defence, A(E), #12
c.1,900	bows and arrows produced/year, A(E), #11, #39
c.190	employees of production bows and arrows, A(E), #11, #39
c.1,900	spears produced/year, B(IP), #39
c.190	employees of production spears, B(IP), #39
c.31,871	= Total Number of people

§4.4 EDUCATION & RELIGION

c.28,000	children, B(E), #5
c.2.8	children/couple, B(E), #5
c.102	lower schools, A+B, #24
c.26	higher schools, A+B.(IP), #14
c.11,470	pupils and students, B(IP), #8
c.800	teachers, A(IP), #17
c.300	professors of "inner-faculties", A(IP), #27
c.51	professors of science and law, A(E), #27
1	head of science and philosophy, B(IP), #22
c.50	co-workers of science and philosophy, B(IP), #22
3	national religious leaders, B(E), #22
c.27	local religious leaders, B(E), #22
c.220	co-workers of religious services, B(E), #22
c.40,922	= Total Number of people

§4.5 BUSINESS

c.2,500	employees of meat industry, A(E), #44
---------	---------------------------------------

c.220	employees for skin-preparation, B(E), #42
c.2,400	employees of garment factories, A(E), #40
c.500	employees of paper industry, B(E), #37
c.2,300	employees of road building, B(E), #15
c.2,698	employees of bronze production, A(IP), #12
c.326	employees of bronze production for export, B(E), #12
c.2,400	harpoons produced/year, B(E), #39
c.240	employees of production harpoons, B(E), #39
c.2,500	employees of leather industry, A(E), #8
c.2,400	employees of production household articles, A(E), #17
c.1,490	employees of production of hides and clothing, B(IP), #27
c.2,199	employees of production of hides and clothing for export, B(E), #27
c.1,800	co-workers competitions and happenings, B(IP), #9
c.1,701	co-workers of art and engraving industry, A(IP), #10
c.2,320	music instruments produced/year, A(E), #41
c.43	employees of production music instruments, A(E), #41
c.500	employees of jewel industry for interior use, A(IP), #38
c.200	employees of jewel industry for export, A(E), #38
c.190	employees of flower trade, B(E), #38
c.24,207	= Total Number of people

§4.6 HEALTH CARE

c.2,694	co-workers of primary services, B(IP), #7
c.2,452	individual health care (doctors, therapists), B(E), #7
c.2,389	co-workers of hospitals, A(E), #7
c.7,535	= Total Number of people

§4.7 FUNERALS

c.45	co-workers of important graves, A(IP), #21
c.180	co-workers of funeral services, B(IP), #20
c.26	co-workers of grave maintenance, B(E), #20
c.251	= Total Number of people

§4.8 WOODWORKING INDUSTRY

c.12,680	trees (cypresse) cut for interior/year, B(IP), #35
c.251	woodcutters, for interior, B(IP), #35
c.2,390	trees cut for export/year, B(E), #35
c.50	woodcutters, for export, B(E), #35
c.170	co-workers of sawing wood for interior use, B(IP), #16
c.250	co-workers of sawing wood for export, B(E), #16
c.130	co-workers of planing wood for interior use, A(IP), #19
c.220	co-workers of planing wood for export, A(E), #19
c.250	co-workers of polishing wood, B(E), #43
c.307	projectors of palaces, temples, schools, A+B.(IP), #18
c.91	projectors of ships, A+B.(E), #18
c.2,301	builders of palaces, temples, schools, A+B.(IP), #23
c.307	builders of ships, A+B.(E), #23
[c.730	builders of ships, A+B.(E), #23] •
c.4,327	= Total Number of people
[c.4,750	= Total Number of people] •

UNITS OF TIME

2	sides, or 2 generations
1	side, or 1 generation
61	passages, or 61 years (2 generations)
30/31	passages, or 30/31 years (1 generation)
1	passage, or 1 year

POPULATION OF CRETE

c.140,622	inhabitants of Crete according to this table
[c.141,045	inhabitants of Crete according to this table] •
c.140,000	inhabitants of Crete according to the disc (Ch.3)
[c.141,000	inhabitants of Crete according to the disc (Ch.3)] •

number of corresponding symbol (see Table 2)

* all numbers relate to both men and women

• high, alternative value

TABLE 3

THE SYMBOLS ON THE PHAISTOS DISC (Figs.1-3), AND THE CORRESPONDING PASSAGES ON SIDES A AND B (c.1458 BC)

SYMBOLS	PASSAGES ON SIDE A AND B (INNER PART / EDGE)			
	A (IP)	A (E)	B (IP)	B (E)
1 Messenger	2,6,11,17	21,31	14,16	19,23,24
2 King	3,6,9,10,12,13, 15,16,18	20,22,24,27,30	3,14	20,28,30
3 Man	1,4			
4 Prisoner		27		
5 Child				28
6 Queen	8	24	3,15	
7 Cover		21,26,29	1,3,4,5,6,7,7, 8,10,11,13	21,23,29,30
8 Glove		25	5,10,12,13	
9 Tiara			4,14	
10 Burin	1,4,12	18		
11 Bow		19		
12 Shield	3,6,7,9,10,13, 15,16	20,22,24,26,27, 30,31		26,30
13 Scroll of the law	2,6	31	12	23,24
14 Palace	9		17	
15 Mattock				23
16 Saw			17	25
17 Lid	8	(24)		
18 Square	8,9,12,18	24,31	4,6,8,17	23,25

19 Plane	5,8	22		
20 Mummy			18	26
21 Grave	3,15			
22 Religion			5,10	22,27,30
23 Hammer	5,12,14,18	20	2,3,6,9	25,28
24 Temple		30	6,18,18	21,26
25 Boat	12,18		2,9	19,22,27
26 Horn	7,10,13,16	23		20
27 Corpse	3,3,9,9,12,15,	25,26	9,14	19,27,29
	15,18			
28 Hoof	11,17			
29 Cat		28,28,29	2,5,10,11,12,	
			13,16,18	
30 Ram			4	
31 Falcon	7,10,13,16	23		
32 Dove	9	20	15	
33 Fish	14	27	15,16	24,26
34 Bee		28	2,9	
35 Branch	3,5,15	22,23	3,8,15,18	21,29
36 Vine-tendrill			5,10,13	20
37 Papyrus	3,15			22,28
38 Flower	1,4	20		19
39 Arrow		19	4,15	24
40 Screen		21,27,30		20,21,30
41 Flute		21,22		
42 Scraper				22
43 Grater				25
44 Chopper		25		
45 Waterway		26,29	1,7,11	29

LITERATURE

1. De Jonge, R.M., The Phaistos Disc Decoded, New Testimony of a Lost Civilization, (2008), Ch.1, INTRODUCTION, Website: www.slideshare.net/dsrsmdejonge
2. De Jonge, R.M., The Phaistos Disc Decoded, New Testimony of a Lost Civilization, Ch.2, ORIGIN AND DATE OF THE PHAISTOS DISC, see Ref.1.
3. De Jonge, R.M., The Phaistos Disc Decoded, New Testimony of a Lost Civilization, Ch.3, POPULATION AND TERRITORY OF CRETE, see Ref.1.
4. De Jonge, R.M., The Phaistos Disc Decoded, New Testimony of a Lost Civilization, Ch.4, DATA ABOUT DAILY LIFE ON CRETE, c.1458 BC, see Ref.1.
5. De Jonge, R.M., The Phaistos Disc Decoded, New Testimony of a Lost Civilization, Ch.5, DECIIPHERMENT OF THE PHAISTOS DISC, see Ref.1.
6. De Jonge, R.M., The Phaistos Disc Decoded, New Testimony of a Lost Civilization, Ch.6, HISTORY OF CRETE, see Ref.1.
7. De Jonge, R.M., The Phaistos Disc Decoded, New Testimony of a Lost Civilization, Ch.7, LATE HISTORY OF EGYPT, see Ref.1.
8. De Jonge, R.M., The Phaistos Disc Decoded, New Testimony of a Lost Civilization, *Midwestern Epi-graphic Journal*, Vol.20, 111-115 (2006), and Vol.21, 74-80 (2007), to be published.
9. Godart, L., The Phaistos Disc. The Enigma of an Aegean Script, Editions Itanos, 1995 (ISBN 960-7549-02-3).
10. Willetts, R.F., The Civilization of Ancient Crete, Phoenix Press, New York (1976) (ISBN 1-84212-746-2).

11. Old World Civilizations, The Rise of Cities and States, The Illustrated History of Humankind, Weldon Owen Pty Limited, McMahon's Point, Australia (1995).
12. Kofofú, A., Kreta, met alle musea en archeologische opgravingen, Ekdotike Athenon, Athene, 1994 (ISBN 960-213-060-1). (Dutch)
13. Kemp, B.J., Ancient Egypt, Anatomy of a Civilization, London, Routledge, 1991.
14. Siliotti, A., Egypt, Temples, People and Gods, Bergamo, Italy, 1997.
15. Johnson, P., The Civilization of Ancient Egypt, Seven Dials, Cassell & Co, London (2005) (ISBN 1-84188-068-X).
16. Wallis Budge, E.A., Osiris and the Egyptian Resurrection, 2 Vol., Dover Pub., N.Y., 1973 (ISBN 0-486 - 22780-4).
17. Breasted, J.H., Ancient Records of Egypt, Vol.2: The Eighteenth Dynasty, London, 1988.
18. Casson, L., Ships and Seafaring in Ancient Times, British Museum Press, 1994 (ISBN 0-525-47545-1).
19. Wachsmann, S., Seagoing Ships and Seamanship in the Bronze Age, Levant, College Station, Texas, 1998.
20. De Jonge, R.M., Website: www.slideshare.net/rmdejonge
21. De Jonge, R.M., "Minoan Pendant (Cleveland, Ohio, c.1690 BC)" (2010), Ref.20, to be published.
22. Herberger, C.F., The Minoan Cultural Response: the Feminine Emphasis, Midwestern Epigraphic Journal, Vol.18/9, pgs. 47-55, 2004-5 (ISSN 1932-5703).
23. Homer, The Iliad, translated by W. Schmidt, Stanford House, London, 1960. (Book II, p.648).
24. Homer, The Odyssey, translated by Dennis Lindzweg, Regnerey, Chicago, 1963. (Book III, p.296).
25. Strabo, Complete Works, Loeb Classical Library, Heinemann, London, 1923-32. (Book X, p.579).
26. Diodorus Siculus, Complete Works, translated by Oldfather et al., Loeb Classical Library, Heinemann, London, 1933-67.
27. Diodorus Siculus, The Geography, translated by C.H. Oldfather, Heinemann, London, 1968.
28. Rydholm, C.F., Michigan Copper. The Untold Story, Winter Cabin Books, Marquette, 2006 (ISBN 0-9744679-2-8).
29. Mohen, J.-P., and Eluère, C., The Bronze Age in Europe. Gods, Hero's and Treasures, Thames and Hudson, 2000 (ISBN 0-500-30101-8).
30. B. Scheel, Egyptian Metalworking and Tools, Shire Publications, Aylesbury, UK.
31. De Jonge, R.M., "The Bronze Doors of Rekhmire (Thebes, Upper Egypt, Eighteenth Dynasty, c. 1460 BC)" (2011), Ref.20, to be published.
32. De Jonge, R.M., and Wakefield, J.S., How the Sun God Reached America, A Guide to Megalithic Sites, MCS Inc., 2002 (ISBN 0-917054-19-9). Available: MCS Inc., Box 3392, Kirkland, Wa 98083-33-92, also on CD. Website: www.howthesungod.com
33. Wakefield, J.S., and De Jonge, R.M., Rocks & Rows, Sailing Routes across the Atlantic and the Copper Trade, MCS Inc, 2010 (ISBN 0-917054-20-2). Available: MCS Inc, Box 3392, Kirkland, Wa USA 98033. Website: www.rocksandrows.com

(Februari, 2012)