

THE PHAISTOS DISK ENIGMA: AN ATTEMPT TO IDENTIFY THE LAW ARTIFACT OF AEGEAN CULTURE

Alexander Krioni

Economist, lawyer, private detective, Moscow, Russia

1. The 3rd of July 2008 marked the 100th anniversary of the day the most popular exhibit from the Archaeological Museum of Heraklion and one of the most renowned artifacts in history was introduced to the scientific community. On that day, the archaeologist Luigi Pernier was digging on the Island of Crete when he found an artifact, which would later be named after the city that retained the Minoan Palace walls. That artifact is the Phaistos Disk (PD), which is a unique literary monument dating back to the middle or late Bronze Age. Today, its exact purpose and meaning and the time and geographical place of its manufacture remain in dispute.

The scientific community has several convincing hypotheses regarding the deciphering of the PD. However, the search remains for confirmation of the only correct interpretation that could lead to at least an understanding of the contents of this document. There are many assumptions. None of them, however, has so far been accepted as conclusive. Archeologist Arthur Evans believed that the mysterious text on the disk was a sacred victorious hymn. Professor E. Shertel proposed the idea that the signs convey the Indo-European language related to Latin, and that the text is a hymn to Zeus and Minotaur. Quite a few attempts have been made to translate the symbols sealed on the disk, with such translations varying in content and meaning, including religious hymns, ritual inscriptions, edicts about division of land parcels, instructions for sowing festivities, reports by scouts, or just a brief historical chronicle. It is also hypothesized, among many other hypotheses, that the PD pictogram is the only proof of existence of legendary Atlantis.

This work is built on the assumption of the legal nature of the PD images. For the same reason, while studying the disk, we tried to bring together all known legal materials into one systematized body rather than follow along the lines of accepted hypotheses. Hence, the question: Should the PD be viewed as an ancient law code, which includes the middle Minoan Age law, which was subsequently used as a source for bringing the laws together on one disk in a new unusual form evidently designed to simplify the understanding and use of such laws? If so, what legal meaning does the PD have?



Acceptance of the PD as a new law monument seems the most convenient assumption in trying to decipher it. If we study the PD as a legal document, we can assume that legislation existing before it or in its time had certainly influenced it while keeping the content inasmuch as allowed by writing rules, which are so unusual for legal technique.

The issue concerning the relationship of the PD to previous legislation would thus get the easiest solution because, in practice, one would have to deal exclusively with the laws developed in approximately 17th century B.C.E., that is, circa beginning of the Second Great Palace period of the Aegean culture. To confirm the weakness of our hypothesis, the PD as a law monument lacks unconditional completeness and accuracy in reproducing the known legal material that could be used as a source for its originator. Therefore, our attempt to recognize the PD as a legal document is primarily due to a series of interesting coincidences and in no way means to criticize the works authored by Günther Ipsen, Walter Porzig, A.G. Bekshrem, and A.A. Molchanov, which deserve to be studied very carefully.

According to discoverer L. Pernier, the study of the circumstances surrounding the unearthing of the PD allows assumptions to be made on the age of the disk and its geographical origin, that is, it was either created on Crete or brought to Crete during either the middle Minoan Age (21st to 17th centuries B.C.E.) or the late Minoan Age (16th to 12th centuries B.C.E.). The year 1700 B.C.E. — the third Middle Minoan Age — was accepted as a tentative date. However, neither the place nor the time of disk creation can be determined with any degree of accuracy because the disk could have been shipped in, imported, or copied.

The disk represents a continuous sequence of various symbols (see Appendix) coming in all sorts of groupings, which makes it possible to view the seals as conventional images of real world objects or separate facts with different meanings—moral, legal, or probably economic. Such groupings are not something objectively determined. The meaning of each individual group of factors changes with the goal we set each time. We view one and the same series of changes either as an individual provision or a fact, or as a collection of several facts. Everything depends on the analogy and the goal that guide us.

What is each individual glyph? We believe that each symbol is a legal fact or a body of legal facts that, taken together or individually, have some legal meaning. Because the legal meaning of a fact is determined exclusively by its causing the application of a legal provision, we can say with certainty that each of 61 groups of symbols is a body of such provisions, which, when taken together, constitute a single legal act.

A legal fact can be rather complicated and can include several acts or factual circumstances. Thus, a group of symbols as a legal fact is made of various elements, the aggregate presence of which is required for availability of a legally meaningful





event. The PD contains more than 242 symbols brought together in 61 groups. Of these symbols, only 45 are different signs, which are repeated 5 to 6 times on average. On the one hand, a large number of repetitions make the hypothesis that each individual element is a separate word highly unlikely because it is hard to think of a sentence of such a length, where almost all words would be repeated that often. Such a statement would be substantiated if we were speaking of a regular letter. If the issue concerns a legal document, however, things appear quite different.

The law of the Ancient Orient was at the initial stage of the development of legal thought and had long remained common, only slowly becoming a written one. Reflecting the trend imminent to the law of all nations at the stage of the first step in jurisprudence, the law consisted of records of the most frequently recurring cases from court practice, which invariably found their way to the cuneiform sources. We find confirmation of our explanation for repeating signs in the following: First, the lawmaker has tried to put the legal provisions of almost any legal system of any particular historical period into a specific branch of law and specific areas of regulation (e.g., procedural provisions, criminal provisions, property rotation, land law, trade and usury provisions, provisions of family law and inheritance, issues of slave trade), which invariably has led to the similarity in provisions in the legal acts of different nations. Second, in our view, the construction of a legal provision has a unique nature, which throughout the ages has followed a determined if — then logical structure known as far back as Roman law. In other words, a provision always contains a hypothesis, a definition, and a sanction. We will cover that in more detail later. Finally, the stamp-like nature of the print speaks in favor of our version of the legal nature of this document. It is unlikely that a set of 45 different stamp seals was made exclusively to press just one inscription on the disk. Most likely, the blanks were designed for speed and convenience of placing texts that were important for the scribe.

To conduct a comparative study and find parallels between the law of the Minoan Age and PD inscriptions, we considered almost all law codes of the Ancient Orient, such as The Code of Ur-Nammu (ca. 2100-2050 B.C.E.)¹, the Laws of Eshnunna (ca. 1930 B.C.E.)², the Codex of Lipit-Ishtar of Isin (ca. 1870 B.C.E.)³, the Code of Hammurabi (ca. 1790 B.C.E.)⁴, and Hittite Laws (ca. 1650 B.C.E.)⁵. Notably, the Code of Hammurabi clearly reflects one of the first approaches in the history of jurisprudence to the uniform formation of legal provisions.

Modern law theory envisions legal facts as quite diverse and allows for different groupings thereof. For our objective, it makes more sense to group them according

¹ <http://hworld.by.ru/text/sumer/urnamu.law.html>.

² <http://hworld.by.ru/text/bab/bilalaw.html>.

³ Kodeks Lipit Ishtar [The Code of Lipit Ishtar]. University of Pennsylvania, Museum Monographs, 1948.

⁴ <http://www.milestonedocuments.com/documents/full-text/code-of-hammurabi/>

⁵ <http://www.hist.msu.ru/ER/Etext/hett.htm>.









to the questions that no longer constitute an object of dispute because they have been reflected in full in the above law monuments. We note that our current goal is to find out if this method is applicable to PD deciphering and what laws known to humanity should the researcher follow while trying to read it.

The above questions can be narrowed down to two categories, two key questions: 1) Was this law established during the middle Minoan Age? and 2) Have the parallels in the legally established forms been maintained in this case?

Each of the above two issues is solved taking into account the corresponding group of actual circumstances, which constitute, from this standpoint, a particular legal fact. We think that an individual legal fact includes circumstances that represent the establishment, exercise, and termination of the right and transfer of legal actions into another specific legal form, where each fact is expressed in graphic form based on the law, on the basis of which it was reproduced by the originator of the PD. In other words, we will base our research on the assumption that the PD is a pictography. The limited number of clear signs may shake our hypothesis based on assumption that the PD is a pictography. However, this is exactly the form to use because it provides the easiest way to run our arguments through critical verification, although one thing to be clarified is to what extent similar “word combinations” can be matched with the objects of regulating social relations of the Minoan culture. In other words, to what extent can the meaning of the signs be effectively matched with the legal provisions of the period in question that they express?

Notably, because the number of law monuments available for study is small, the proposed deciphering method will not take a lot of time to discuss, and the variations of the subjects of regulation of social relations by the above legal acts are basically the same.

The potential direct link that we establish between the group of signs and a legal fact seems quite important for the matter under consideration. When this assumption is taken as a basis, it is easy to notice that the volume and the form of the written text are determined by the law of its time and place of manufacture. Therefore, a “prisoner”  can be bailed out only for money  (sign of “wallet”), whereas the seller of one measure of honey⁶  (sign of “bee”) can ask for no more than two measures of something else  (sign of “cat”), regardless of where and when the law was active. This is all the more obvious, because when studying the law monuments dating to the same period and place it is difficult to apply them to the PD in a different form.

Thus, all symbols shown on the disk are legal provisions about conventional rules. Each legal provision is composed of three elements according to the follow-

⁶ Hetskie zakony [Hittite Laws]. Article 91.





ing: the condition to which a rule of conduct is applied, the presentation of the rule itself, and the enforcement procedure. The first element is called the hypothesis or assumption, the second is called the disposition, and the third is the sanction. Therefore, each legal provision can be expressed as an if — then sequence, such as:

§36. If a man rented an ox and broke its horn (see groups A16, A25 of PD — note by the author), he shall pay one-fourth its price⁷.

This is not to say that each PD article comprises all these three elements. The provision can be expressed in a number of articles; the hypothesis can be contained in one field, with the disposition and the sanction in another, such as:

§23. If the brigand is not captured, the man who has been robbed, shall, in the presence of god, make an itemized statement of his loss, and the city and the governor, in whose province and jurisdiction the robbery was committed, shall compensate him for whatever was lost⁸.

§24. If it is a life (that is lost), the city and governor shall pay one mana of silver to his heirs⁹.

In addition, a provision can be expressed without direct indication of the condition. Instead of if — then, it could have used “the one who does this will be subject to that” formula or “the property that — shall go to this or that”¹⁰, for example:

§36. If a man purchases the field or garden or house (see group A2 PD— note by the author) of an officer, constable or tax-gatherer, his deed-tablet shall be broken (canceled) and he shall forfeit his money and he shall return the field, garden or house to its owner¹¹.

Sometimes the lawmaker uses the descriptive form of expression instead of the imperative one. Rather than saying that such and such individuals should do this or that, he says that they actually do it. Thus, article 1 of the Laws of Eshnunna deals with correlation between cost of various goods and silver, whereas article 2 sets forth the equivalent measures between different merchandise and grain. Articles 3 and 4 determine tariffs for hiring a carriage or a ship (see PD groups B22, B29 — note by the author). Articles 5 to 11 are about remunerations for hired help and punishment for various violations related to hiring people and leasing property.

⁷ S.N. Kramer. *Shumery: ikh istoriya, kul'tura i kharakter* [The Sumerians: Their History, Culture, and Character]// University of Chicago Press. Chicago, 1979, p. 339.

⁸ R.F. Harper. *Kodeks Hamurappi tzarya Vavilona* [The Code of Hammurabi King of Babylon]// University of Chicago Press. Chicago, 1904, p. 19.

⁹ R.F. Harper. *Kodeks Hamurappi tzarya Vavilona* [The Code of Hammurabi King of Babylon]// University of Chicago Press. Chicago, 1904, p. 19.




¹⁰ N.N. Korkunov. *Lektzii po obshchei' teorii prava* [Lectures on General Theory of Law]. Saint-Petersburg, 1904. p. 125.

¹¹ R.F. Harper. *Kodeks Hamurappi tzarya Vavilona* [The Code of Hammurabi King of Babylon]// University of Chicago Press. Chicago, 1904, p. 23.





Sixty-one fields of the PD correspond to an approximate number of legal provisions in each of the previously mentioned laws¹². A similar legal technique of the majority of legal documents in eastern civilization speaks of the uniform nature of legal systems. As was rightfully noted by G. Ipsen, the PD is the Aegean embodiment of eastern civilization. The Hittite hieroglyphic writing can be used as a historical parallel here.

2. Assuming that the period of writing the PD coincides with the period of validity of the above law monuments, whose customs the PD supposedly reproduces, we can affirm that the direct meaning of the signs is taken from the authentic legal texts, that is, from other law monuments put in a legally definite form, including the following: 1) Code of Ur-Nammu, 2) Laws of Eshnunna, 3) Codex of Lipit-Ishtar, 4) Code of Hammurabi, and 5) Hittite Laws.

Suppose that steady combinations of signs in each of the 61 fields, being legal provisions, are composed of an assumption and instruction. We point out the most popular ones. The plumed head  appears most often (19 times), and it does so in the same position at the beginning of a group. The “shield” sign  (17 times) comes either as the second sign (and in such case, always after the  sign in preposition) or as the last sign of the group.

Based on the above analysis of the most frequently occurring glyphs and their sequences, and based on the findings of the German researchers G. Ipsen and W. Porzig¹³, we built a table of dependence of steady combinations of symbols as applied to individual legal provisions of the above legal acts (*Table 1*).

Table 1


Glyph	Code Name (Ipsen, Gunt-er)	Hypothetical meaning of the glyph (author's version)	Count	Remark
	Plumed head	Free man	6	Priests, judicial assembly members, craftsmen, or individuals relieved of tax-paying obligations personally by the king
	Shield	Wheel	17	1) The protective gear of Hittite warriors included leather armor or long tunics, leather helmets, and shields with side indents. 2) Light war chariots were the main striking power of the Hittite Kingdom in the second millennium B.C.E. Each wheel had six cogs**.


¹² Except the laws of Hammurabi and Hittite laws.


¹³ Günther Ipsen. *Der Diskus von Phaistos [Phaistos Disk]// Indo-evropei'skie issledovaniya [Indo-European Studies]*. 1929, p. 47.

* V. Zaymarovsky. *Sekrety Hettov [Secrets of Hittites]*. Moscow, 1968, p. 298.

** V. Zaymarovsky. *Sekrety Hettov [Secrets of Hittites]*. Moscow, 1968, p. 298.

	Plumed head — Shield	“King’s court” group of symbols	13	The ancient rite of wheel worshipping related to the king’s court. The combination of glyphs probably indicates the importance of the court case, which needs to be solved by the king himself.
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3. Main results of the text structure studies. As may be seen from *Table 1*, we have changed the conventional name of the pictures to their new assumed meaning. We believe that the  sign cannot depict a warrior wearing a plumed helmet. The thing is that the first archeological findings that speak of similar helmets with high plumage are relatively “younger.” For example, such helmets were worn by the Urartu warriors 1,000 years later, during 9th to 8th centuries B.C.E. Supposedly, the above symbol makes a point of showing a man with hair, most likely to indicate his social status. Therefore, we assume that to make the sign indicating the social stratum (“free” or “not free”) clearer, the pressman made a distinction between those with hair and those without hair.

The pictograph showing a shield  also has another meaning, which is quite different from the accepted one. According to V. Zamayrovsky, the warriors of the Sumerian Nome were protected by huge forged copper shields; they entered a battle using close formation, with the rear rows protected by the shields held by the front row warriors. The rear rows would thrust their long spears forward, finding support on the side indent of the shield. The war chariots’ wheels had six cogs¹⁴. Obviously, the stamp cutter could not be unaware of the existence of large shields or more so of the indents in the shields. On the other hand, when choosing the technique for picturing a wheel, the seal maker could have opted for a relatively simple technique, whereby each cog is depicted as an untouched field between paired dots. In this case, six fields would mean six cogs, whereas the central dot would mean the wheel axle.

From among the legal sources available for survey, the Laws of Eshnunna and Codex of Lipit-Ishtar were the closest in terms of structure, whereas the Hittite Laws came closest in terms of contents. Whereas the former contain just a similar number of provisions, the others have direct indication of the royal court procedure, for example:

§49. [If] a hipparaš-man steals, there will be no compensation. But [if] ... , only his ... shall give compensation. If they (i.e., the hipparaš-man) [were] to have to give (compensation for) theft, they would all have been dishonest, or would

¹⁴ V. Zaymarovsky. *Sekrety Hettov [Secrets of Hittites]*. Moscow, 1968, p. 276 — 278.

* K.I. Batyr. *Vseobshchaya istoriya gosudarstva i prava: Uchebnik dlya vysshikh uchebnykh zavedenii’ [Universal History of State and Law: Textbook for Higher Educational Establishments]*. Moscow, 2000, p. 36.

have become thieves. This one would have seized that one, and that one this one. [They] would have overturned the king's authority(?)....¹⁵.

§ 198. If he brings them to the palace gate and says: "My wife shall not die," he can spare his wife's life, but he must also spare the lover and 'clothe his head.' If he says, "Both of them shall die," they shall 'roll the wheel (i.e., the royal court).' The king may have them killed or he may spare them¹⁶.











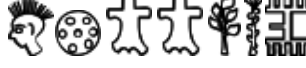


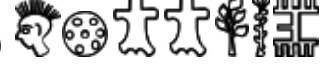
We believe that the combination of two symbols  can quite possibly mean the ancient rite of wheel worship, where litigators took oath before the king's court. Therefore, the groups of glyphs in Table 2 contain legal provisions that could be decided upon only by the supreme court of the Hittite Kingdom:

Table 2

(A1) 	(A19) 
(A5) 	(A22) 
(A8) 	(A23) 
(A10) 	(A26) 
(A12) 	(A29) 
(A16) 	(B1) 
(A17) 	

4. Certain results of practical use of the method. Article 50 of Hittite Laws mentions the evergreen sacred tree¹⁷ symbolizing immunity of the head of the household on whose territory it grows:

§ 50. The ... [man] who ...-s in Nerik, he who is priest in Arinna (or) in Ziplanta — in every town their houses are exempt, whereas their associates render the luzzi-services. In Arianna, when the eleventh month arrives, [the house of him] at whose gate an eyan (ku-e-la ^{GI5}e-ja(-an) a-aš-ki-iš-si) is ... likewise (exempt)¹⁸.



¹⁵ H.A. Hoffner. *Zakony Hettov: kriticheskoe izdanie* [The Laws of the Hittites: Critical Edition]. New York, 1997, p. 60.

¹⁶ V. Zaymarovskiy. *Sekrety Hettov* [Secrets of Hittites]. Moscow, 1968, p. 298.

¹⁷ V. Ivanov. *Khrestomatiya Istorii Drevnego Vostoka* [Chrestomathy on Hystory of Ancient East]. Moscow, 1980.

¹⁸ H.A. Hoffner. *Zakony Hettov: kriticheskoe izdanie* [The Laws of the Hittites: a Critical Edition]. New York, 1997, p. 61.



Interestingly, one of the PD “provisions” pinpointed in this paper (PD group A1) contains a sign symbolizing the evergreen tree, the “cypress” . Because only the king was in a position to provide someone with the status of a man free of homage, we can assume that the above provision  can be read as follows: “No man can be freed from homage other than by the decision of the king’s court”.

5. We attempted to provide a far from complete analysis of the most frequently occurring PD symbols and compare them with legislation and other written evidence dating back to 2093-1650 B.C.E., with the intention of using this vivid example to show the strength of assumptions about PD writing sign form, on the one hand, and the legal origin of the inscriptions, on the other. Certainly, all provisions that may be coded on the disk cannot be described because the circumstances of their origin are unknown to me and I am not an expert in ancient world history. There are a great number of sources that may and should be studied by historians to decipher the PD code.

From the standpoint of the above statements, it is necessary to study not only each individual provision of the above legislative acts but also other written sources, the contents of which are particularly close to symbol language used to describe the ways and customs of the Ancient Hittite Kingdom.

EXHIBITS

