ATLANTIS VERSUS HISPANIOLA: GEOGRAPHIC AND NUMERIC INFORMATION IN PLATO AND BARTOLOME DE LAS CASAS

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1. Introduction

In two works, Timaeus and Critias, Plato has transmitted to us the story of a great empire that according to an Egyptian priest in Sais, as referred by Solon who was in Sais, had existed 9000 years before Solon time, i.e. circa 9500 BC, on the other side of the Atlantic and had been destroyed by a great tsunamitype catastrophe. The empire of Atlantis was centred on an island, about which several geographic details are given, with a beautiful capital endowed by a well protected port wherefrom ships travelled to other places in the world. The information collected by Solon, according to the statement in Plato, should have led to a poem that Solon was unable to realize due to his many political commitments. The story is told in Plato's book by an old man, aged 80 years, named Critias junior. He heard it seventy years before by his grandfather, a relative of Solon, during a festival, when he was a boy ten years old. Critias spent a night trying to recollect the details of the story heard so many years before. We remark that the story was not unknown before Plato wrote his books, where Atlantis is presented as an example of glorious and good administration, since there are references to it in fragments of a lost poem by Hellanicus of Lesbos on Atlantis, apparently written before the books of Plato. Also, during the Lesser Panathaens festival, which dates to over a century before Plato time, a peplum was brought around with a picture celebrating the victory of Athens over Atlantis (as found in a scholiast of

Plato). Moreover, if the story was known in Egypt, it is virtually certain that Pythagoras, who spent long time in Egypt around the time of Solon, knew about it. Now the Pythagorean philosophy was essentially kept secret, with heavy penalty on those who would violate it (what is still now true for the Ishmaelite and Druze religions: penalty of death applies to anyone who would divulge an element of the secret Druze religion, as was the case not many years ago for the Druze ambassador in France...). It was partly transmitted orally, partly in written way. Now we know from Aulus Gellius that two were the books most expensive to his knowledge: the Sibylline books sold to a Roman king (only three out of nine; the king initially refused to buy them and the vendor repeated the offer after having destroyed first three, then another three of the books keeping the price unchanged) and the three books that Philolaus, a Pythagorean philosopher, sold to Plato, after buying them wrote Timaeus. If Plato had used Pythagorean material from such books, it is extremely likely that he was bound under penalty not to quote the source. The fact that Timaeus is not complete might also be explained by some prohibition to talk about certain parts of the Philolaus book. A new explanation for a curious fact that has always puzzled scholars.

About the interpretation of the Atlantis story in Plato there has been debate since antiquity, many books and thousand of papers having been written. The interest is strong even nowadays, as shown by an important conference organized in Milos in 2005 by Greek universities, the Proceedings having appeared in 2008. The approaches to the problem can be broadly classified as follows:

- 1 those who claim that the story is fiction, invented to support Plato's political ideas about the best administration of a city state. This position is the most common in academic circles, but seems to lose ground with the evidence, now well accepted in particular by geologists, that catastrophic events whose source is outside Earth can explain many facts
- 2 those who claim that the story contains information partly true, but that should refer to a much closer time (the 9000 years are usually interpreted as 9000 months, since the Egyptians had also a month calendar), to a location closer to Egypt, typically in the Mediterranean or along the coasts of Atlantic Europe. Thus the island of Atlantis has been identified with Crete, Sardinia, with the interior of Tunisia, with Andalusia, and other places near the Atlantic coast of Europe, as Brittany, Helgoland, the Solovetsky islands. These authors also assume a much less dramatic catastrophe. In this approach very substantial changes are made to the Platonic text

3 – those who accept as essentially correct the statements in Plato, differing in the location of Atlantis. Here we recall Barbiero [1], who put Atlantis in the region of Antarctica facing Patagonia (he reached this place by rubber boat from Patagonia! Barbiero is an admiral, an explorer, and one of the most fascinating scholars on antiquity, having opened new vistas on some of the most well kept secrets of history). We recall Collins [2], who proposed Cuba. In several works [3,4,5] we have proposed Hispaniola as the island of Atlantis, with a likely position of the capital city in the southern part, a rather flat plane surrounded by mountains with also a rather large lake in a depression below the sea level, now quite full of caymans.

Some comments are given here about our works, the first of which appeared almost a quarter of century ago. While in our opinion they stand in their conclusion mainly unchanged, some further elements in favour can be added, see below. Moreover we now consider as more likely cause of the catastrophe that terminated the Atlantis era a close passage to Earth by a large body, instead of an oceanic impact that we considered in our first approach.

A – thanks to Collins [2], our idea that Atlantis was in Hispaniola has been in a sense confirmed by the statement, discovered by him, in a book written in the XVIII-th century by a Guatemalan nobleman, that according to a local Guatemal tradition the people of Guatemala originated from Hispaniola, after devastation brought by a great catastrophe. In our work we had noticed that the Taino name for Hispaniola was *Quisqueya*, i.e. mother of the lands.

B – we accepted the Platonic date of circa 9000 years before Solon time, i.e. circa 9500 years BC, since evidence was clear already in the eighties that the last Ice Age terminated rapidly circa 9450 BC. One important element was the fact that sediments analysis had shown that the temperature at the bottom of North Atlantic increased very rapidly, by some 5 degrees in less than 50 years, see Lehman and Kergwa [6]. This fact has now been updated to a heating of some 27 degrees in less than 5 years, as claimed by Petersen at the recent Atlantis conference in Milos. Such an increase cannot probably be explained by any terrestrial agent and should therefore be attributed to an extraterrestrial cause.

C – we suggested that the three stones used in Atlantis for the construction of the palaces were obtained from coral deposits. Now we know that while in most parts of the world only red coloured corals are found, in the Caribbeans there exist corals of exactly three colours, red, yellow and grey. Also use of coralline stones in construction of palaces is documented in the city of Yambo, the port city of Meccah, where the originally red stones are quarried along the coast of the Red Sea.

D – in our works we considered as the likely cause an asteroid-comet impact over an ocean, a fact that could certainly explain the Atlantis catastrophe. However we are now considering as more likely the passage of a large body near Earth, of mass comparable with that of our planet. For reasons to be detailed elsewhere we think this event provides a better explanation of what happened in that critical year, including the survival of mankind in isolated places located in high mountain ranges as Caucasus, New Guinea, Ethiopia.... We are also modelling the possible origin of our Moon by capture from the body that approached Earth. Within this context it is possible to see Mars as a previous satellite (orbiting at about 1 million km, from analysis of a passage in Censorinus) and therefore to explain the presence of water and most probably of life on it until just a few thousand years ago. Part of these ideas reflect, extend and modify ideas in Velikovsky [7] and Ackerman [8].

This paper is motivated by our reading of the book [9], a Venetian translation made in 1643 called *Breve relazione sulla distruzione delle Indie*, by Bartolomé de las Casas, a Spanish Dominican friar, 1484-1566. He spent many years in Hispaniola, Mexico, Venezuela, Guatemala, just after the conquest, becoming also bishop, a function he gave up after some time. In 1542 he wrote the quoted book, which is a dramatic description of the crimes committed by the Spaniards in their exploitation of the Indios, reduced within few years to a small fraction of their previous number. In the chapter about Hispaniola we were amazed to find a description of the island that very closely recalls that of Plato for the island of Atlantis. In the next section we compare the two descriptions. We conclude that they support our identification of the island of Atlantis with Hispaniola.

2. Geographic data in Bartolomé de las Casas and in Plato about Hispaniola and Atlantis

Here we give the geographic information on Hispaniola found in the quoted book [9], in the chapter *The kingdoms that existed in the island Hispaniola*.

There were in that island five principal kingdoms, to whom the very many other chieftains paid obedience...

One of the kingdoms was called Magua, meaning the kingdom of the plain. This plain is one of the most remarkable in the world, extending 80 leagues from the southern sea to the northern sea. Its width is five leagues, sometimes eight or ten. On its sides there are very high mountains. More than 30.000 rivers enter this plain, among them twelve are as large as the Ebro, the Duero and the Guadalquivir. All rivers that are born in the eastern mountains, about 20.000 or even 25.000, are very rich in gold. Here is the province of Cibao, with the famous mine of Cibao, producing high quality gold. The king of this kingdom was called Guarionex. Many chieftains were under his control, each one able to form an army of 16,000 persons...another kingdom was named Marien, located at the northern end of the plain, where is now the royal port. It had a large population, many mountains and very rich mines of gold and copper....the third kingdom was Maguana, very fertile with healthy climate....the fourth kingdom was called Xaragua, being like the court of the island, its people having the best language and customs...the fifth was called Higuey, being under the power of an old woman....

The population of the island was around three million people, most of them died due to the harsh treatment of the Spaniards.....to work in the mines later about two million people were imported from the coast of the Gulf of Venezuela, all of them to die there again....in the whole of America twelve million, or possibly fifteen million indigenous people lost their life to the Spaniards.

Some of the above material relates to the Spanish oppression and destruction of the local people after the conquest, a genocide that was started by Columbus himself, as evident from his own diaries. The following analogies are of interest to us comparing the geographic elements in Bernardin and in Plato, using P for Plato, C for las Casas, H for Hispaniola:

- C quotes very high mountains, the same is stated in P, who claims these
 mountains were higher than those known to Greeks. In H there are
 indeed two mountains about 3000 m elevation, one, the Pico Duarte,
 located very close to the coast, hence appearing extremely high for
 someone approaching the island from the sea
- P claims the existence of a great irrigated plane, protected by a chain of mountains from the cold winds from the north. C also quotes a very large plain, more elongated than wide, surrounded by mountains. This plain corresponds to the flat area in the southern eastern part of H, including the region where lake Henriquillo is found, in a depression below sea level

- P claims the existence of much water in the form of lakes and rivers. C makes the impressive claim of the existence of 30.000 rivers, which is an approximately correct statement if we add to the rivers flowing into ocean, several hundreds due to the many mountains with valleys opening directly into the sea, the smaller rivers or streams that bring their water to the rivers flowing into the ocean. This number may have been given because most rivers could provide gold dust and we know from Columbus that all adults in the island had been forced to pay every year a certain amount of gold. 30.000 rivers imply that several persons had to work on each of them to collect gold. Those who failed in their quota were burned alive or given to the dogs, which makes Columbus one of the worst criminals in history (this information comes directly from his diaries)
- P claims the existence of a large population, divided in ten kingdoms. Las Casas does the same, but with a division in five kingdoms, no reason obviously existing for the number 10 to survive over millennia. This shows that the island was extremely fertile and easy to cultivate, that tribal wars were probably uncommon and that irrigation was probably used at C time, albeit he does not speak of it. Now the population is about 20 million, with a higher density in the Haiti part, showing that the land (whose extension is about twice that of Switzerland) can support many more millions than at Atlantis time, albeit if import of food and modern cultivation techniques certainly contribute significantly
- C claims the existence of important gold and copper mines. Copper has been exploited since remote antiquity. The availability of copper in H suggests that the mysterious *orichalc* in the P text might have been pure copper, which would keep its reddish colour when exposed to a clean atmosphere; but it could also have been some league, even via a mixture of gold and copper. We should also recall that the Isle Royale in the present Canada side of Superior Lake had a large mine of native copper, exploited certainly in the second millennium BC. This mine was abandoned suddenly, apparently at the time of the last of the three great catastrophes quoted by Plato, i.e. the Deucalion catastrophe. This, following Orosius, can be associated with Exodus and Phaethon explosion over northern Germany, see Spedicato [9,10].
- It is a pity that C could see personally Indios being killed in the most horrible ways, but could not speak with their elders, collecting

information about their history, religion, traditions. He complains of the loss of the several languages that were spoken in America, due to the Spanish genocide. Anyway a full search of the literature of the XVI-th century might give information, that we have not yet collected. The Taino essentially disappeared very soon, the many Indios imported from Venezuela also died in the mines. The present population descends almost completely from white immigrants and African slaves. However this author some time ago met a woman from the Enriquillo region who claimed that her grandmother, who lived in a small village, had been the last Taino shaman woman. This recalls the fact that the American buffalos, deemed extinct after their extermination by the white people in the XIX-th century, were found to still exist in the wilderness of northern Canada, a single rather large herd, where now the Buffalo Park exists.

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