CADMUS SLAYS THE SERPENT

PART 2 DISCOVERY OF BRAZIL BY CADMUS

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CADMUS AND VIRACOCHA

Is there an Andean civilizing hero in pre-Colombian traditions who corresponds to Cadmus? If such a figure did exist, he would form part of the mythical and religious tales of **Viracocha**.

Similarly, the hecatomb the Greeks offered to the gods on special occasions, occurred in Cuzco, Peru, at grand festivities such as that of Intip Raimi, celebrating the June solstice, where the Incas made a sacrificial offering of a hundred llamas to the sun.¹ Following ancient traditions, each province was represented by its tribal chief who brought costumes and masks, used to keep alive the deeds of their heroes. Some of these costumes are of particular interest. According to **Garcilaso**, the Chanca Indians, of the present Ayacucho region, covered themselves with puma skins; with their heads covered by the puma head, they resembled Hercules.²

The most telling information concerning a civilizing god can be found in the Viracocha myths. The origin of Viracocha, whose strange name means "fat of the sea," and the legends surrounding him, form part of the great enigma of the Inca civilization. Among the various and confusing narratives compiled after the Spanish conquest, that of **Pedro Gutierez de Santa Clara,** in the late 16th century, stands out for being simple and informative.

¹ Ondegardo, Polo de, (1571) Religion y Gobierno de los Incas, p. 21, Vol. III, Colec. de Lib. de Hist. del Peru, Lima, 1916.

² Garcilaso de la Vega, *Comentarios Reales de los Incas*, Book IV, Chap. XV, Book VI, Chap. XX.

In the villages of Paita, Puerto Viejo, and on Apuna Island, Gutierez³ relates, the Indians used, since times immemorial, rafts of light wood (balsa wood) and bamboo, with triangular sails and a rudder. They explained that their forefathers learned this from a man who came from the sea, arriving on those shores in a raft with a sail similar to the one they use now, and called him Viracocha, which means "foam of the sea" or "fat of the sea," who was engendered by the sea, fatherless and motherless. Likewise the Spaniards, who arrived from the sea, were called Viracochas. This curious mythological fragment from the northern coast of Peru shows a navigating Viracocha, merely one facet of the Viracocha myth.

The ruins of the principal temple of Viracocha are located in Cacha, in the present-day village of San Pedro de Cacha. Lying on the right bank of the Vilcanota River, considered sacred by the Incas, the village is 120 km south of Cuzco, on the way to Puno. In this temple was a stone statue. Garcilaso, probably basing himself on the manuscripts of Blas Valera, describes it in these words:4 "It was (like) a man of high stature, with a beard longer than a span of the hand; his clothes were broad like a tunic or cassock, down to his feet. He had a strange animal, of unknown appearance, held by a chain." Another writer, Cieza de Leon, who passed through Cacha, relates having seen the statue of Tice Viracocha without, however, mentioning the beard:5 "In commemoration of their god Tice Viracocha, whom they called Creator, they constructed this temple and placed in it a stone idol the size of a man, with clothes and a crown or tiara on his head." One can no longer hope to confirm the statue's appearance, because it was destroyed by iconoclastic Spaniards. Their descriptions do not correspond to the image one has of Cadmus or Hercules; one must remember, however, that the same gods or heroes were not always represented in the same manner by those who adapted them to their religion. Lucian of Samosata, referring to the Syrian Apollo, cites the example of the statue of Apollo in the temple of Hierapolis; rather than showing a naked youth, in accordance with the Greek representation of Apollo, he was depicted as a clothed and bearded adult.6

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³ Santa Clara, Gutierez de, cited by Henrique Urbano in *Wiracocha y Ayar*, p. 16, Cuzco, 1981.

⁴ Blas Valera, *Las Costumbres Antigas del Peru*, transcribed by Francisco A. Loayza in Los Pequenos Grandes Libros de Historia da America, Series I, Volume VIII, Lima, 1945.

⁵ Cieza de Leon, Pedro, *La Cronica del Peru*, Chap. XCVIII.

⁶ La Déesse Syrienne de Lucien de Samosate, XXXV. Trad. Mario Meunier; Guy Tredaniel; Ed. de la Maisnie, Paris, 1980.

WHEN DID THE MYTHICAL EVENT OF VIRACOCHA OCCUR?

In Quechuan, Viracocha means "fat" or "foam of the sea." Peruvian tradition uses this name to describe the mythological navigators, preachers, thaumaturges, legislators, even the creator of the universe. Viracocha is a myth of great complexity. In relation to Greek theology it is comparable to Aphrodite, which the Greeks, by etymology, also connected with the foam of the sea ($\alpha \phi po \varsigma = \text{froam}$). Hesiod⁷ (*Theogony*, 155-200) stated that Aphrodite was borne from the waters, after Kronus mutilated the reproductive organ of his father, Uranus (the sky). A white foam emerged from the sea, of which Aphrodite was borne.

According to some Peruvian traditions, Viracocha, as creator, civilizer, and legislator, appeared during a period of obscurity and darkness. Other writers state his presence is linked to a phenomenon that seems to describe a volcanic eruption. One does not know how this information was transmitted, but can only surmise that those relating the facts were the *kipukamayos*, using a mnemonic system of cords with knots called *kipus*. The narrations which establish the volcanic eruption with the presence of Viracocha explain that, to punish the Canas Indians who worshipped a goddess situated on the highest points of the mountains, he sent down a terrifying fire from the sky which appeared to melt like wax the peak of a hill near Cacha.⁸, ^{9,10}

Viracocha was also described as a venerable old man with a beard, holding a staff¹¹ and, by his appearance, was identified as an apostle. Influenced by strong religious pressures of the 16th and 17th centuries, they interpreted darkness with the darkness of the death of Christ. ¹² Because of the moral and

⁷ Hesiod, *Theogony*, 155-200.

⁸ Betanzos, Juan de, (1551) *Suma y Narracion de los Incas*, Peruvian Library Vol. III; p. 280, Ed. Tecnicos Assoc. S.A., Lima, 1968.

⁹ Cieza de Leon, Pedro, (1553) *El Senorio de los Incas*, Chap. V, Institute of Peruvian Studies, Lima, 1967.

¹⁰ Sarmiento de Gamboa, Pedro, *Historia de los Incas*, Chap. VIII, p. 108, AMECE Publisher S.A., Buenos Aires, 1943.

¹¹ Santacruz Pachacuti Yamqui, Juan de, (1613) cited by Enrique Urbano, *Viracocha y Ayar*, p. 21, Cuzco, 1981.

¹² Bible: Matthew 27, 45; Mark 15, 33; Luke 23, 44.

religious content of the Viracocha legends, he was identified as Saint Thomas.¹³

In the Cacha site, Spanish writings mention the presence of light, vitrified black rocks, which allows one to infer the existence of an extinct volcano nearby. The lack of information as to the nature and age of the volcanic event, compelled the author to visit the site in February 1985, during which he met with the Peruvian archaeologist **Manuel Chávez Ballón**.

All that remains of the temple of Viracocha are some walls and the bases of cylindrical columns. The building occupies a rectangular area measuring 92 m in length by 26 m in width, constructed on a north-south axis, in the middle of which stands a 12-m high wall. The foundations were constructed using large stone blocks, dressed and fitted with notable mastery; above the stone foundations, however, is a thick sun-dried mud wall, of a different quality, indicating a later construction, possibly used to preserve the original structure. The temple of Viracocha is the highest Incan edifice known. Beside its dimensions, one must note the large diameter of the stone columns, of which only the bases have survived, and constructed similarly to the walls. The temple has 11 equidistant columns between the walls, aligned on either side of the central wall, resulting in 12 openings to the east and to the west.

An hour's climb from the temple lies an easily accessible volcanic crater. The extinct Quinsachata volcano, which in Quechuan means "three brothers," because of the three hills that surround it, has a conical crater with a diameter of approximately 100 m. Scattered over the volcano are pyroclastic fragments of porous, vitrified black rock, of varying size, which were ejected from the crater during the eruption.

One of these fragments, collected by the author from the soil of Cacha, was submitted to spectroscopic analysis. Results indicate the rock as being a silicate of aluminum, calcium, magnesium and sodium, with traces of other elements.¹⁵ The high sodium content indicates that the lava was quite fusible. The black color could

¹³ Juan de Santacruz P. Y. places this event at the time of *Purumpacha*. According to Aimara tradition, Viracocha was called Tonopa Viracocham - Pacachan, identifying him as Saint Thomas, op. cit.

¹⁴ Chávez Ballón, Manuel, *El sitio de Raqchi y el Templo de Viracocha* in *K'anchi* by Vincente Guerra Carreno, Lima, 1982.

¹⁵ Analysis carried out by the engineer Luiz Fernando de Carvalho, at CETEM Laboratories, Rio de Janeiro.

be attributed to the presence of iron and titanium.

The volcanic rocks observed *in situ* show slight erosion and, despite being highly porous and the climate quite severe, seem to indicate a geologically recent volcanic eruption, confirming mythological traditions. Since there are no physical methods available to date the lava samples, there was no attempt to date the eruption.

Fortunately, one can estimate the age of the eruption without dating. Chávez Ballón informed the author that he encountered very old ceramic fragments in the lava fissures, of the type classified as A Marcavalle, dating around 1,400-1,200 B.C. This important find allows one to place the eruption of the volcano prior to the dating of the ceramic fragments; hence, the mythological event, narrated in Peruvian traditions, occurred at least 3,200-3,400 years ago. This definitely voids the ecclesiastic theory associating Viracocha with Saint Thomas; rather, Viracocha must be linked to the events relating to the origins of the oldest Peruvian cultures, which specialists call the formative period.

Most scholars have not given due attention to the Peruvian myths recounting cataclysms, except for the archaeologists **Julio C. Tello** and **Toribio Mejia Xesspe**, who interpret these myths as oral traditions, preserved by the Andean people three to five thousand years ago. ¹⁶ After studying a series of legends that seems to report a cataclysm, they concluded that these traditions are legitimate, reporting a telluric phenomenon of great proportion, involving severe disturbances of the most recent stratigraphic layers in different regions of Peru, and which occurred in the formative period. The archaeologists conclude that a cataclysm occurred in the Andean region, and that the prolonged darkness of the sky, quoted in the Huarochiri myth, ¹⁷ was caused by airborne dust particles, resulting from the violent seismic upsets caused by volcanic eruptions.

The evidence of **Augusto Cardich** confirms their conclusions. Cardich collected a series of stratigraphic data from the excavations carried out in the Huargo Cave (alt., 4,000 m), in Huanuco Department. Despite the absence of volcanoes within a one hundred-kilometer radius, he found two layers containing volcanic ash, the older of which containing a larger concentration of ash

¹⁶ Tello, Julio C. and Mejia Xesspe, T., Paracas, second part, Chap. 3, Lima, 1979.

¹⁷ "Now we will tell a story about the death of the Sun. In ancient times the sun died. The darkness lasted five days. Then the stones began to hit one another. Mortar stone began to pound and crush mankind, while the llamas chased them." Francisco de Avila, *Manuscrito Quechua*, Chap. IV, translated by Gerald Taylor, L'Harmattan, Paris, 1980.

¹⁸ Cardich, Augusto, Excavaciones en la Cueva de Huargo, The Nacional Museum Magazine, Vol. 39, p. 11-29, Lima, 1973.

(10%), and which radiocarbon dating placed at 1,620 B.C., with a tolerance of 230 years. He also discovered, in this layer, the region's oldest ceramic fragments. The results allow one to infer that the mythological events of Viracocha, regarding intense volcanic activity, atmospheric turmoil and darkness, probably occurred around 1,600 B.C.

ARCHAEOLOGY REGARDING CADMUS

The geographical interpretation of the Cadmus myth surmises the existence of navigational instruments, capable of measuring arcs, but where is the goniometer that can serve as proof? To defend the transatlantic voyage theory during the second millennium B.C., one needs to prove the existence of seaworthy vessels. What evidence does archaeology offer?

Archaeological evidence in favor of transatlantic voyages exists in abundance and was already considered by a number of authors.¹⁹, ²⁰ The Anthropology and Archaeology Museum, in Lima, exhibits a primitive engraved stone monument, measuring approximately 60 cm in height. Located in a corridor without any identification, it seems as if the curators dare not reveal its origin. The authors of a guide to Sechin²¹ make an unsubstantiated presumption that the engraving represents a scapula. The monolith was found at the archaeological site of Sechin (Casma), related to the Chavin culture, on the Peruvian coast, north of Lima Department. Radiocarbon²² tests of the oldest charcoal remains found in the main temple of Sechin, date the site at around 1,000 B.C. It is presumed that the engraved monoliths, found in Sechin, are at least that old. The design represents a geometric shape of considerable depth, Fig. 5, suggesting a quadrant with a pointer

¹⁹ 52. Ibarra Grasso, Dick Edgar, *America en la Prehistoria Mundial* (difusión Greco-Phoenicia), Buenos Aires, 1982.

²⁰ Fell, Barry, *America B. C.- Ancient Settlers in the New World* - Quadrangle/The New York Times Book Co., Inc., New York, 1976.

²¹ Jimenez Borja, Arturo and Samaniego Roman, Lorenzo, Guia de Sechin. Casma (Peru), 1973.

²² Ravines, Rogger, *Panorama de la Arqueologia Andina*, p. 160; Institute of Peruvian Studies, 1982.

at midpoint.²³ In the lower right-hand corner of the quadrant are two concentric circles, as expected in an instrument that allows the rotation and adjustment of one's course. No great leap of imagination is necessary to notice that this stone could represent the most ancient goniometer constructed by man. Fig. 5 also shows a diagram of a quadrant used to measure the azimuth, similar to one used by the astronomer **Tycho Brahe,**²⁴ in the second half of the 16th century. The absence of a scale in the Sechin quadrant can be easily explained: the ravages of time could have effaced the fine lines on the original instrument long before it was represented in stone by the artist.

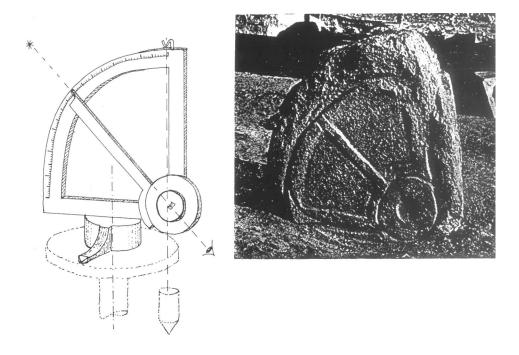


Figure 5. The Sechin monolith (circa 1000 B.C.) with bas-relief, analogous to the drawn quadrant beside (a).

²³Dick E. Ibarra Grasso on page181 of the cited work. He also identifies the design of Sechin as a nautical instrument, calling it a quadrant.

²⁴ Nature, no. 15, p. 409, March 8, 1877.

Other monuments at Sechin, which hold surprises, are the monoliths along the main entrance steps of the temple. The authors of the guide to this archaeological site presume them to be banners. Actually, if observed horizontally they seem to reveal vessels of Phoenician origin, similar to those represented in various medals (Fig. 6). The mast tied to the hull, distinctly engraved on the monoliths of Sechin, suggests that these vessels were ready to be transported overland. The masts tied to the sides allows them to be carried with ease. A passage by Apollonius of Rhodes (Argonautica IV, 1385-1387) suggests this form of transport was used during a voyage which Jason and his companions undertook through the desert of Africa, carrying on their shoulders the Argos for 12 days.

One knows little of the vessels that plied the Mediterranean, their routes or ports of call during the second millennium B.C. One can only deduce through clues that the port of Ugarit accommodated large vessels. From the size of a stone anchor found in this Phoenician port, Honor Frost estimated that the ship displaced 200 tons.²⁵

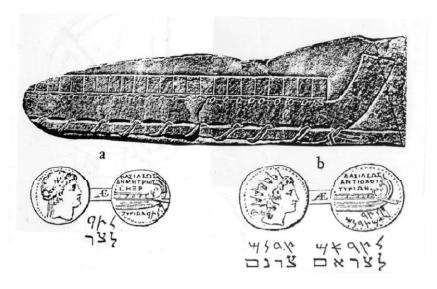


Figure 6. Phoenician-like vessel engraved on Sechin's monolith. The main figure shows one of the pair of Sechin monoliths which, like banners, are located at the entrance to the principal temple. The incomplete figure, purposely sculpted on those monoliths, coincides with the vessel represented on Phoenician coins. a) and b) Greco-Phoenician coins from Tyre, representing half a galley, on the reverse; the first one, with the effigy of King Demetrius; the second one, that of King Antiochus IV. Mémoires de Litterature de l'Academie Royale des Inscriptions et Belles-Lettres, T. 30, p. 427, Pl. II, Paris, (1764).

²⁵ Cited on page 131, note 7, The Cambridge Ancient History II, Part 2, Cambridge, 1975.

In Chicago's Natural History Museum, there is a cedar vessel measuring 32 feet (9.6 m) in length. This boat formed part of the funerary offerings to **King Sesostris (Senusret) III,** of the Twelfth Dynasty, and was found buried next to his pyramid in Dahshur. Egyptologists interpreted this funerary offering as part of a religious ritual: a vessel to transport the pharaoh's soul across the waters, to the Underworld. We have already mentioned that the Underworld or Hades, could refer to America. Note the strong and elegant design of the hull (Fig. 7), constructed with thick cedar planks, strong enough to face the sea. If Egyptologists accepted the hypothesis of a transoceanic voyage at that time, they would write the following errata: "With this boat of cedar, Sesostris III planned to navigate to the land of the dead" should read "with this embarkation of cedar, Sesostris III planned to navigate to America."

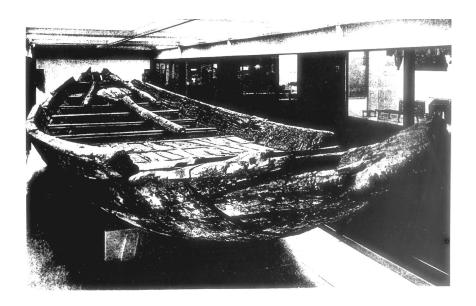


Figure 7. Cedar vessel in which Sesostris III planned to navigate to the underworld (circa 1670 B.C.).

Another full-scale model of an ocean vessel could be disguised under the name of "funerary boat of **Cheops.**" This vessel is a magnificent piece of

²⁶ National Geographic Magazine Vol. 114, no. 2, August 1958.

naval engineering, measuring 42.6 m in length²⁷ (Fig. 8). Some of its cedar planks measure 18 m in length. The largest vessels departing from the Egyptian shipyards, according to the records of the Palermo Stone, were constructed by **King Sneferu.**²⁸ He brought to Egypt forty vessels laden with timber, from which he built 44 ships, some measuring up to 100 cubits (equivalent to 51 meters) in length.

If one can imagine an elegant ship, with a proud prow crowned by a gargoyle gliding over the "sinuous serpent" (the Amazon River), it might be Cadmus' vessel. Pausanias allows this flight of imagination, reporting that, in Thebes, three images of Aphrodite were carved out of the wooden figurehead that crowned Cadmus' ship.²⁹

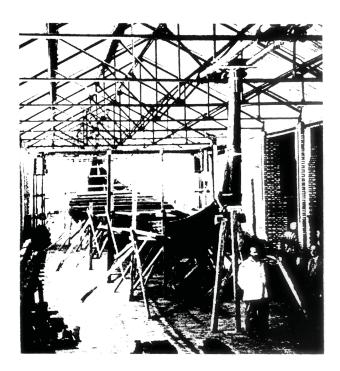


Figure 8. Vessel, 42.6 m long, found next to the pyramid of Cheops.

²⁷ The Cambridge Ancient History, Vol. 1, part 2, p. 347, third ed.

²⁸ Ibid., p. 346.

²⁹ Pausanias, Book IX, XVI, 3.

The site of present-day downtown Thebes was where, thirty-five centuries ago, Cadmus ordered the construction of his royal house and founded the citadel of Cadmeia, atop a pear-shaped hill, flanked by the Dirce and Ismene Streams.

The first systematic excavations in the search for Mycenaean Cadmeia were conducted in 1906-1926 by **A. Keramopoullos**.³⁰ According to his conclusions, the remains of ancient Mycenaean walls found on the edges of the hill confirm that the acropolis of Cadmeia was surrounded by fortified walls. He attributed these walls to the twin sons of **Zeus** - **Zethus** and **Amphion** - who, according to mythology, ordered their construction.

According to Pausanias, Cadmus' house was located in the area of the ancient agora, or square; it was destroyed by Zeus' lightning and over its ashes nothing was constructed, as it was considered a sacred place. The excavations of Keramopoullos, carried out near the center of Cadmeia (along Pindar Street, behind the present-day market), reveal the remains of a large Mycenaean edifice, destroyed by a violent fire, which he identified as Cadmus' house because it had been devastated by fire and nothing was constructed on its ruins until the Christian era. Subsequent excavations carried out some forty meters from Cadmus' house reveal the so-called "treasure room." Also destroyed by fire, it contained gold jewelry - some worked with lapis lazuli and agate - as well as 39 lapis lazuli cylinders bearing cuneiform inscriptions, the latter of exceptional interest for being of Eastern origin. This "library" of cylinders confirms the legend that Cadmus brought writing from the Orient.

Today, only traces remain of the luxury and wealth of Cadmus' palace. Instead of exotic perfumes and aromatic wines, the ruins exhale the acrid smell of burnt earth, evoking the tragic end of a race. The line of heroes ended on the perimeter of that citadel - one of the most memorable episodes in the tragedies of **Aeschylus**, narrated in one of the poet and dramatist's most famous works, *The Seven against Thebes*. Cylinders, jars, inscriptions, gold and precious stone jewelry, artistic works of ivory, fragments of beautiful frescoes showing the procession of a Mycenaean princess - none of the remains retrieved from the burnt soil suggest that the citadel was inhabited after the fire. The site remained unoccupied until the Christian era.

When Pausanias visited the site claimed to hold the remains of

³⁰ Demakoupolou, Katie & Konsola, Dora, *Archaeological Museum of Thebes*, General Direction of Antiquities and Restoration, Athens, 1981.

Cadmus' house - not far from the gate and the communal grave of the soldiers who fought against **Alexander the Great** and his troops - he was told that this was where Cadmus sowed the dragon's teeth. Pausanias did not believe the story.³¹ He could not have imagined how large those teeth were!

A LACONIAN TOWN CALLED BRAZIL

Cadmus' deeds were preserved in the myths and in the toponymy of the Laconia Peninsula, in southern Greece. The ancient name of Laconia, mentioned by **Homer**, was Lakedaemonia. Some authors claim it is named after the hero **Laco** or **Lacedaemon**; according to modern etymologists it is named after Lacus or Lacuna, owing to the deep valley through which the Eurotas River flows. Privileged by its pleasant climate and beautiful panorama, Homer called it "The lovely Lacedaemone" (*Iliad*, III, 443). In the middle of Laconia, bathed by the Eurotas River, is Sparta (Fig. 9). Its inhabitants (Sparti = sown-men), conserve the ancient tradition that they are descended from the teeth sown by Cadmus. Curiously, the eastern coast of Laconia, washed by the waters of the Argolic gulf and belonging to the modern eparchy of Kynouria, had a small Mycenaean town named Brasiae. This region, washed by the waters of the Argolic Gulf, belongs to the modern eparchy of Kynouria The name Brasiae seems to be linked to the Brazilian shores of South America, as shall be presently shown.

Pausanias (*Pausanias*, Book III, 24, 3) recounts that the inhabitants of Laconia preserved a series of myths about the Underworld or Hades.³² The inhabitants of Brasiae say they have a story found nowhere else in Greece. They narrate that the daughter of Cadmus, **Semele**, after having given birth to Zeus's son, **Dionysus**, was locked in a chest and, together with the infant, they were washed ashore onto the beaches of Brasiae. Hence, Pausanias explains, the town where they were borne by the waves, hitherto called Oreiatae, became known as Brasiae. In fact, *brasis*, in

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³¹ Pausanias, Book IX, X, 1.

³² The Yucatan Peninsula also preserved signs of a pre-Hellenic presence. In *History de los Incas* by the Spanish navigator and discoverer, Pedro Sarmiento de Gamboa (1532-1592), the author agrees with the observations of other historians and chroniclers; he also notes the Greek influence in Central America, citing a province in Mexico that preserved the name of Lacandones, which appears to correspond to the Greek name of Lacadaemones.

Greek, means the action of the waves washing up an object on the beach.³³ One must, then, reconsider the origin of the name "Brazil." Could it really have originated from the Semitic *brzl*, meaning iron, as Professor **Cyrus Gordon** affirms; or perhaps from the aforementioned pre-Hellenic *brasis*?

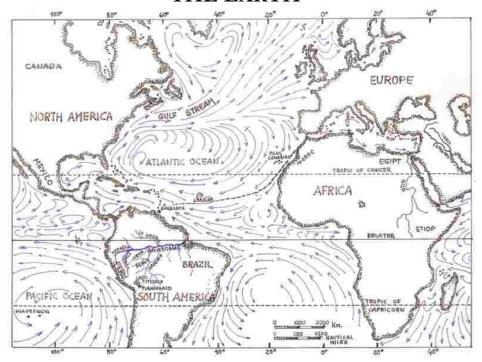


Figure 9. Map of Laconia (Sparta)

The name Brazil could belong to a Mycenaean town in Laconia, called *Brasiae* by Pausanias.

³³ Baily, A., *Greek/French Dictionary*, p. 376, Hachette, Paris, 1950.

ADDENDUM THE OCEAN'S STREAM SURROUNDING THE EARTH



Thor Heyrdahl published a study³⁴ in which he has shown the feasible routes by which ancient seafarers might have crossed the ocean to reach the Americas. According to Heyerdahl, a powerful current starts off northwest Africa, passes the Canary Islands, and runs "straight to the West Indies and the Gulf of Mexico." It "offers calmer climate conditions and extremely favorable ocean currents and prevailing winds." He chose the city of Safi, on the Atlantic coast of Morocco, as the departing port for his Ra expeditions.³⁵ He wanted to prove

³⁴ Heyerdahl, Thor (1963) Feasible Ocean Routes to and from the Americas in Pre-Columbian Times, American Antiquary, Vol. 28, N° 4, pp. 482-488.
68. "Las Expediciones RA", por Thor Heyerdahl, Editorial Juventud, Barcelons (España), 1980.

³⁵ "Las Expediciones RA", por Thor Heyerdahl, Editorial Juventud, Barcelons (España), 1980.

that Phoenicians, Egyptians, Libyans and other peoples of the Mediterranean followed the same route, taking advantage of maritime winds and oceanic currents, to reach America thousands of years before Columbus. South from Safi rises the mountain which the Barbarians called Dyris or Daran, and Herodotus identified it as the mythological Atlas. I instead identified it in South America.³⁶ Near Safi are also the stupendous megalithic ruins of the Phoenician city and port of Lixus. Their sun-oriented megalithic walls, fitted together to perfection, remind one of the Incan constructions. Summarizing the importance Lixus had in ancient times, Heyerdahl describes it with these worlds:37 "The history of Lixus has vanished into the dawn of history. The Roman called it 'The eternal City' and said it was the burial place of Herakles, the greatest hero of Greeks and Phoenicians (Greeks identified it with Melkart). It was built by unknown Sun-worshipers who oriented the gigantic megalithic walls according to the sun. Its oldest known name, in fact, is 'Sun city', whoever founded and built Lixus, it is clear that astronomers, scribes, masons, and experts potters were among them".

The oceanic voyage from Africa to America in the Bronze Age, even with primitive sailing boats of papyrus, as demonstrated by the Ra expeditions, transported by the Canary Current, could be achieved in less than two months. The return from America going back the same way would be difficult, the raft would go against the stream and prevailing winds. The difficulty of return is clearly indicated in **Virgil's** 6th Book of *Aeneid* (125-129), on the advice Aeneas received from the **Sibyl of Cumae**, before his journey to the Underworld:

O Trojan, son of Anchises, generated from
god's blood, the descent into Inferno is easy,
night and day is open the door of gloomy
Hades, but coming back the same way and take
To the brize above, there is that is the difficult test.

³⁶ "Journey to the Mythological Inferno" Chapter II, by Enrico Mattievich, Rogem Press, Denver, 2010.

³⁷ "Isolationist or Diffusionist?" by Thor Heyerdahl – (1971) www.whiteindians.com/diffusionism.html

In the *Theogony*, within one thousand and twenty two verses, **Hesiod** quotes "the great Ocean", "the deep Ocean stream", and "the Ocean stream that surrounded the Earth" at least six times. Clearly, in these verses is knowledge of Ocean streams, as result of the Coriolis acceleration. Certainly these 'Oceanic streams' could not have been invented by the poet, the knowledge came from nautical experiences of the Bronze Age oceanic navigators.

On Heyerdahl's map of ocean streams, in his book Ra (Figure above), he shows that due to the Coriolis acceleration the streams are counterclockwise in the South Hemisphere, and clockwise motion in the North Hemisphere. From the mouth of the Amazon River, the navigation is most favorable to the North. From Florida, a strong tropical stream begin, called the Gulf Stream, which is directed toward North Europe. Then, the return journey from the mouth of Amazon River, following the Atlantic streams, was most difficult and delayed.

In 1855, **Mattew Fontaine Maury,** an American naval officer, published his "Physical Geography of the Sea", which is frequently referred to as the first textbook of modern oceanography. In that publication he devotes the first chapter to the Gulf Stream, introducing it in the following words:³⁸

There is a river in the ocean. In the severest droughts it never fails, and in the mightiest floods it never overflows. Its banks and its bottom are the cold water, while its current is of warm. The Gulf of Mexico is its fountain, and its mouth is in the Artic Seas. It is the Gulf Stream. There is in the world no other such majestic flows of waters. Its current is more rapid than the Mississippi or the Amazon.

The discovery of the Gulf Stream or, more accurately, the first mention on record, came about two decades after the discovery of the new world. Early in march of 1513, **Ponce de Leon** set sail from Porto Rico with three ships on a voyage of exploration. Apparently the purpose of the expedition was to search for land to the north of the West Indies, but legend would have it that this search of Ponce de Leon's was for a "fountain of perpetual youth". Setting a northwesterly course, the expedition discovered Florida, a landing being made on the eastern coast somewhere in the vicinity of Cape Canaveral. Sailing

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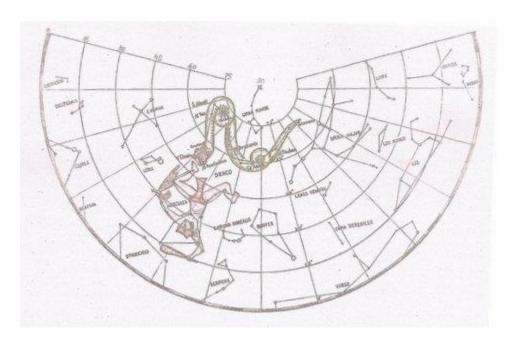
³⁸ "The Sea" by H. A. Marmer, Chapter XVIII, p. 266, D. Appleton and Company, New York, 1930.

southerly then, on April 22nd they encountered "a current such that, although they had great wind, they could not proceed forward, instead backward". Thus was the Gulf Stream first noted. During the following centuries mariners became acquainted with the Gulf Stream throughout its curse, but much of this information was kept as a professional secret.

The formation of the Gulf Stream is in the Caribbean Sea, from the Guyana Current. The Gulf Stream is an intense, warm ocean current in the Western North Atlantic Ocean. It moves north along the coast of Florida and then turns eastward of North Carolina, flowing northeast across the Atlantic. The Gulf Stream flows at a rate nearly 300 times faster than the typical flow of the Amazon River. The velocity of the current is fastest near the surface, with the maximum speed typically about 5.6 miles per hour (nine kilometers per hour). The average speed of the Gulf Stream, however, is four miles per hour (6.4 kilometers per hour). The current slows to a speed of about one mile per hour (1.6 kilometers per hour) as it widens to the North. The Gulf Stream transports nearly four billion cubic feet of water per second, an amount greater than carried by all the world's rivers combined.³⁹

³⁹ www.oceanservice.noaa.gov/facts/gulfstramspeed.html

THE HUNDRED –HEADED *DRAKON* SLAYED BY HERCULES



The circumpolar constellation of Hercules, between Lyra and Bootes, shows the hero wearing the skin of the lion while holding his club. He also rests his foot atop the head of **Draco** the dragon. This huge serpent is shown lying between the two Bears. He is said to have guarded the golden apples of the Hesperides, identified with the Gorgons by Hesiod: *Stheno, Euryale and ill-fated Medusa who dwell beyond glorious Okeanos* (Atlantic), *at earth's end, toward night* (TH: 274-276) and, after Hercules killed Draco, he is placed by **Juno (Hera)** among the stars.⁴⁰ To accomplish this feat, Hercules acquires from **Helios** the vessel in which to cross the Ocean's stream.⁴¹

There are three contenders concerning the mythological representation of Draco. By far the most commonly accepted version of Draco's arrival in the

⁴⁰ "The Myths of Hyginus" by Mary Grant, p.184, University of Kansas Publications, Lawrence, 1960.

⁴¹ "Python" – A study of Delphic Myth and its Origin – By Joseph Fontenrose, p. 345, University of California Press, 1980.

heavens, however, is that Draco was the dragon killed by Cadmus. ⁴² I'm also in agreement with this interpretation. In my geographical interpretation, the myth of the circumpolar constellation of Draco is a stellar allegory immortalizing the conquest of the Amazon River during the Bronze Age. ⁴³ Due to the precession of the equinoxes, one of the stars of Draco, probably αThuban, was the star nearer to the celestial North Pole, very important for oceanic navigation. Draco is circumpolar and visible throughout the Northern hemisphere, but for the navigator of the southern hemisphere bellow 10° of latitudes it is invisible. To conquer the Amazon River in the southern hemisphere, in certain form, it was necessary to "slay" Draco in the sky. Virgil (Georgics, book I, 242-246) call *Maximus Anguis* the Draco constellation, and locates the River Styx in the southern hemisphere:

The one pole to us is still elevated: But the other under

Our feet is seen by gloomy Styx and the infernal Ghosts.

Here, after the Manner of a River, the huge Dragon

Glides away with tortuous windings, around and through

Between the two Bears, the Bears that fears to be dipt in the Ocean.

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⁴² www.constellations-class.webs.com/lesson4.htm

⁴³ According the inscribed Marmor Parium stele, preserved in the Ashmolean Museum, Oxford, Cadmus is placed three hundred ten years before the fall of Troy. Hercules lived fifty two years and his death was placed about twenty sixth years before the Troyan Era. Thus, Cadmus precedes Hercules by about two hundred years. "Fasti Hellenici" The Civil and Literary Chronology of Greece, by Henry Fines Clinton, Vol. III, p. 75 to 85, Oxford, At the University Press, 1834.

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