

CADMUS SLAYS THE SERPENT

PART 1 DISCOVERY OF BRAZIL BY CADMUS



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Petrópolis, RJ, Brazil, August, 2012

*I dedicate this paper in memory of Professor José Leite Lopes, brilliant Brazilian physicist, who, as the Director of CBPF (Brazilian Center for Physical Research) and editor of the series of preprints *Ciência e Sociedade* (Science and Society) dared to publish the first version of this work in 1986.*

SUMMARY

In “Journey to the Mythological Inferno” and previous works published in this website, following Hesiod’s Theogony: -- *at the foot of the high mountain Atlas, at the western ends of the famous Okeanos* -- I identified the remains of the resounding Palace of Hades and Persephone with the archaeological remains of Chavín de Huántar labyrinthine palace, located at the foot of the highest peaks of the Peruvian Andes. In this article I try to explain how I found that the famous myth of Herakles slays – the hundred – headed Draco which guarded the golden apples of the Hesperides, narrated as a stellar myth by Hyginus, is related with the stellar myth of “Cadmus slays the serpent” preserved by Ovid, and both myths I interpreted as geographical allegories of the heroic conquest of the Amazon River. The garden of Hesperides, with its golden fruits, is related to the garden of Coricancha, preserved and worshiped at Cuzco from ancient times, with plants and fruits made of gold. To confirm this thesis would require archaeologists to conduct comprehensive works on stratigraphic dating at Sacsahuaman cyclopean fortress, which, instead of only having 100 years of antiquity before the Spanish Conquistadores, as assigned by the official story, It’s more than 3200 years old. The antiquity of this fortress will be discussed in a second part of this paper.

INTRODUCTION

In September 1,969, an extensive article published in the Rio de Janeiro newspaper *O Globo*, revived a dormant topic in Brazil: the prehistoric visit of Phoenician navigators to the Brazilian coast.¹ The story quoted Professor Cyrus Gordon, of Massachusetts' Brandeis University, who believed in the possibility of these voyages. He visited Rio de Janeiro, interested in the Phoenician inscriptions which had been found in Brazil. Professor Gordon, a recognized Orientalist, had made important contributions to the study of the texts discovered in the royal library of Ugarit. These texts, inscribed on clay tablets, lay buried for more than 3,000 years, until their discovery by Claude Schaeffer, in 1929, at Ras Shamra, on the Syrian coast.²

Ancient Ugarit was a cosmopolitan city during the second millennium B.C. It was an important Mediterranean port controlled by the Canaanites, who maintained wide-ranging contacts with the civilized world of the day. The polyglot nature of the community is reflected through the various vocabularies used in the tablets. Scribes translated the Ugaritic vocabulary into Sumerian, Akkadian and Hurrian. Besides these languages, some Cypro-Minoan tablets, as well as Egyptian and Hittite hieroglyphics were discovered. The archaeological discoveries at Ugarit revealed the existence of close contact between the Canaanite, the Cretan-Mycenaean and the Peloponnesian civilizations. Ugarit poetry is related to Homeric poetry and Hebrew poetic texts. In the Old Testament, according to Professor Gordon, the Hebrews never called their language "Hebrew" or "Israelite," but quite correctly "the language of Canaan."³

The Ugarit tablets hold priceless information, revealing fragments of the history, religion and customs of the long-dead Canaanite civilization, famous for its maritime skills and whose people were called Phoenicians, derived from the Greek name - Phoenix - brother of Cadmus who, in turn, is considered the founder of Thebes.

Soon after the first excavations, the levels at which dwellings were dug up revealed that the city had been repeatedly reduced to ruins. The few Egyptian objects found in the first or topmost layer - corresponding to the final destruction of Ugarit - belong to the Eighteenth and Nineteenth Dynasties, which conventional chronology places in the 14th-13th centuries B.C. Today, this date is contested by some revisionists⁴ who take into consideration the interesting synchronism between Egypt and Israel proposed by the author Immanuel Velikovsky.⁵ according to this chronology, the destruction of Ugarit occurred in the 9th century B.C., i.e., in Homer's time, contemporaneous to the Assyrian king, Shalmaneser III, and to Jehoshaphat, king of Judah.

This chronology also fits in better with the results of radiocarbon dating. But the answers to these questions lie beyond the scope of this paper.

In the *O Globo* article, Professor Gordon presented new data favoring an ancient hypothesis that the name “Brazil” is of Phoenician origin. His paleographic studies indicated that this name originated from the vocable *brzł*, used by the Canaanites to denote iron. Moreover, he firmly believed that in the land discovered by the Portuguese navigator Pedro Álvares Cabral, in 1500, there was archaeological evidence of these transoceanic voyages, on ancient lapidary inscriptions. Perhaps with that newspaper feature Gordon hoped to motivate Brazilian specialists, in order to exchange information. Unfortunately, this did not happen. On the contrary, some days later, Professor Pedro Calmon, the then president of the Historical and Geographical Institute of Brazil, published a reply wherein he contested the affirmations made by the illustrious visitor, stating that the name “Brazil” is of German origin.⁶ In his opinion, the inscriptions found in Brazil, and attributed to Phoenician navigators by the archaeologist Ladislau Netto (director of the Archaeological Museum of Rio de Janeiro, in 1872), were no more than simple pranks. In fact, the illustrious Orientalist narrowly escaped being called an ass since, according to Professor Calmon, “the truth of such matters already appears in children’s textbooks.”⁷

Professor Calmon’s reply was consistent with the established academic consensus that any pre-Colombian voyages across the Atlantic never happened. Despite the opinions of these scholars, there were others in Brazil who believed in the possibility of such voyages, and sought evidence to support their beliefs. Among them was the historiographer Francisco Adolfo de Varnhagen, Viscount of Porto Seguro (1816-1878), the aforementioned Ladislau Netto, and the epigraphist and student of Brazilian prehistory, Bernardo de Azevedo da Silva Ramos (1858-1931). The latter not only believed that ancient Phoenician and Greek navigators of the Mediterranean had landed on the Brazilian coast but, like Champolion’s decoding of Egyptian hieroglyphics, claimed to have deciphered all the messages the navigators had left on the *itacoatiaras*, the Tupi name for these ancient Brazilian lapidary inscriptions. Even though his enormous two-volume work of prehistoric Brazilian paleography does not fit in with modern scientific methodology, one must recognize his efforts in compiling hundreds of drawings found on the *itacoatiaras*, where it is often possible to recognize archaic Semitic and proto-Greek characters⁸ (Fig. 1).

The debate between Gordon and Calmon had once again confronted two opposing views: that of the diffusionists who believe the culture of the New World could have derived from the Old World, and that of the isolationists, who believe that the Americas, surrounded by

extensive oceans, developed an independent culture. At the same time, a scientist of great imagination and energy, Dr. Thor Heyerdahl, pondering that the truth lay between these two extremes, undertook a nautical adventure to demonstrate the possibility of navigating across the Atlantic Ocean, on a primitive papyrus craft, similar to those constructed by the ancient Egyptians. Departing on May 25, 1969, from the coast of Morocco in a vessel called Ra I, and carried by the winds and ocean currents, he sailed 2,662 nautical miles in 55 days, arriving close to the South American coast, 600 miles from Barbados. He repeated the adventure on the Ra II and, after navigating 57 days and traversing 3,270 nautical miles, reached Barbados, on July 12, 1970.^{9, 10} These feats demonstrated that, during proto-historical times, America was far from being an inaccessible continent, as maintained by the isolationists. Heyerdahl demonstrated that with the prevailing westerly ocean currents and winds, this type of craft could reach the Americas a short two-months' sail from the African coast and, even if a primitive papyrus vessel did not have a rudder, it would inexorably drift in the same direction, i.e., toward South America.

STELLAR MYTHS - KEEPERS OF DEEDS

The equinoctial axis is an imaginary line that projects two equinoctial points in the sky, resulting from the intersection of the ecliptic (plane of the apparent path of the sun among the stars) and the celestial equator (equatorial plane, perpendicular to the Earth's axis). The equinoctial axis slides slowly over the "houses" of the zodiac, due to the precession of the Earth's axis, over a cycle of 25,770 years. This phenomenon is called the Precession of the Equinoxes and appears as a slow drift of the equinoctial points among the zodiac, following the sequence Taurus, Aries, Pisces, etc., and taking 2,147.5 years to pass completely from "house" to "house."

The fundamental reason why we have seasons is the obliqueness of the ecliptic, which forms an angle of about 23.5° to the Earth's axis.

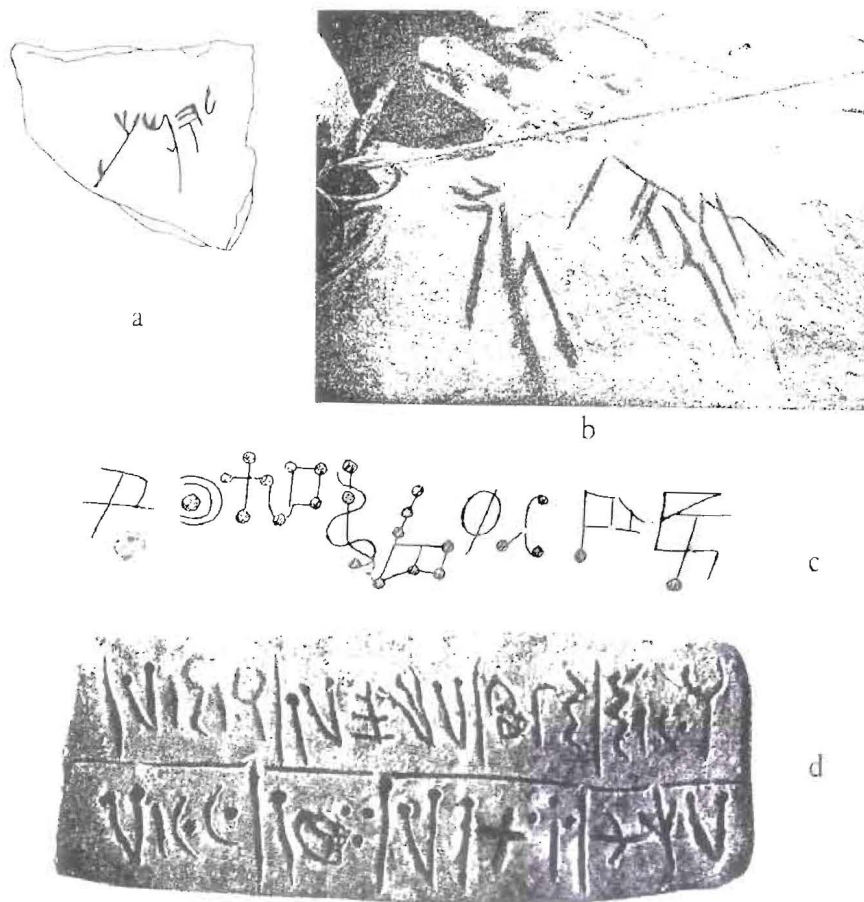


Figure 1. The figuration of thought.

Comparison of Semitic inscriptions (a, d) with symbols engraved on Brazilian *itacoatiaras* (b, c)

a) Fragment with inscription found in Israel, at Tell-el-Hesi. Note its similarity to the elements in Illustration (b).

b) Rock inscription on the banks of the Amazon River, in Itacoatiara (near Manaus).

c) Brazilian inscription found in Currões Velhos, on the boundary of Brejo da Cruz, Patu District, Rio Grande do Norte state. The inscription presents symbols with points and traces similar to the Semitic tablet (d).

d) Tablet with proto-Sinaitic inscriptions found in the excavations of Deir-Alla, Jordan.

a and d: Driver, G. R., *Semitic Writing*, Oxford University Press, Oxford, 1976.

b and c: Ramos, Bernardo A. S., *Inscrições e Tradições da America Pre-Histórica* (vol. I and II), Rio de Janeiro, 1930 and 1939.

The equinox, meaning equal day and night, occurs twice yearly, when the sun crosses the celestial equator, around March 21 (the vernal equinox, when the sun crosses into the northern celestial hemisphere, starting the northern spring) and around September 22 (the autumnal equinox, when it crosses into the southern celestial hemisphere, starting the northern autumn).

Thousands of years ago the annual march of the constellations was utilized as a practical calendar to regulate the planting and harvesting of crops. Once man undertook long voyages he had to depend on the seasons for his survival and, naturally, he also began to observe the regions of the sky where the sun appeared to rest on a particular constellation. The sun's position in regard to the constellation that rose in the east, just before dawn at the vernal equinox, was a very important "pointer" that indicated the "Age" of the precessional cycle.

It is most likely that the concept of constellations was developed during the pre-literal age, when the proto-historical astronomer had to create a method of establishing his astronomical observations, so as to correlate the positions of the stars with the seasons of the year. Thus, the group of stars upon which the sun appeared to rest during the vernal equinoxes between 4,000 B.C. and 2,000 B.C. was called the Taurus constellation, because of its resemblance to a pair of horns pointing upwards. It was the "Age of Taurus." The precession caused the vernal equinox to slide toward the Pleiades, one of mythology's most important star groups. Around 1,300 B.C., the vernal equinox, in its continuous slide over the Aries constellation, occurred over the Pleiades, and started to cross in front of the Perseus constellation - high over the northern horizon - represented in the sky by the severed head of the Gorgon.

Chavin de Huantar, identified as the mythical palace of the Gorgon (who, according to Greek myth, was defeated by Perseus), was constructed around this period. Therefore, one should not be amazed to find the complex somehow linked to the myth of Perseus and the Gorgon's head, considering that, in Peruvian mythology, Huari or Wari (the principal deity worshipped in Chavin de Huantar) is intimately related with the Pleiades.

Present-day investigations into the myths, as revealed in *Hamlet's Mill*^{1a} and the surprising star correlation found on the pyramids and the Sphinx,^{11b, 11c} allow one to deduce that the precession of the equinoxes

was already known to astronomers prior to Hipparchus. According to Reiche,¹¹ Plato and probably Eudoxus had information on the phenomenon through other sources rather than their own personal observations; he also presumes that the knowledge came from Egyptian "myths," like the one cited by Plato (*Timaeus*, 22; *Critias*, 112a).

The myth of Cadmus' contest against the dragon, as well as the boreal constellations which represent the contest between Heracles and Draco, can be classified as myths related to memorable events on earth assigned to constellations.

CADMUS SLAYS THE SERPENT

Agenor, king of Tyre, had a beautiful daughter, Europa, whom Zeus loved. This Phoenician princess was the mother of Minos, the mythological king of Crete, and of Rhadamanthys, who some say was the judge of the dead in Hades, while others place him in the Islands of the Blessed or the Elysian Fields.

The legend that links the Cretans and Phoenicians to Hades, relates that Zeus, in the form of a magnificent white bull, had abducted the daughter of Agenor, carrying her to Crete on his back. Cadmus, sent to search for his sister Europa, was forced to traverse the world until he found her.

Told by an oracle to follow the route of the sun, Cadmus discovers an immense serpent, against which he wages a victorious battle. He sows its teeth, from which emerge armed warriors, who fight each other to the death. With the five remaining survivors, he founds a town as ordered by the oracle.

The battle of Cadmus against the serpent is mentioned by Euripides (*Phoenissae*, verses 638-675), four hundred years before it was narrated by Ovid. Seneca also mentions it in verses 709-732 of *Oedipus*. However, the most detailed version of this Theban myth is narrated by Ovid, in *Metamorphoses*, Book III, verses 1-130.¹²

*1 The god had already laid aside the deceitful guise of a bull,
and admitted who he was and arrived at the Dictaeon countryside,
while her father, in his ignorance, was ordering Cadmus to seek out
his ravished daughter, adding that he would punish him with exile if he
did not*

5 find her, being by that same token dutiful and nipped.

Agenor's son wandered throughout the world, a fugitive (for who
 could discover Jove's thefts?), and avoided both his native land
 and his father's anger, and, as a suppliant, consulted Phoebus'
 oracle to find out what land he ought to dwell in.
 10 "You will be met," Phoebus said, "in the lonely fields by a cow
 which has never endured the yoke and has been exempt from the curved
 plow.
 Pick your way, with her to lead, and where she rests upon the grass
 see that you establish city walls, and call them Boeotian."
 Cadmus had scarcely made good his descent from the Castalian cave,
 15 when he saw, coming slowly, an untended heifer
 that bore no mark of servitude upon her neck.
 He followed after with a deliberate tread, keeping to her tracks
 and silently worshipping Phoebus, his journey's guide.
 By now he had already passed Cephissus' shallows and the fields
 of Panope:
 20 the cow stopped and lifted her lovely forehead with its tall
 horns towards the sky and, disturbing the air with her mooing
 as she looked back to her companions following on behind,
 she sank down, lowering her side onto the soft grass.
 Cadmus gave thanks and planted kisses on this alien
 25 land and greeted the unfamiliar fields and mountains.
 He was about to sacrifice to Jupiter: he ordered his attendants to go
 and get water for libations from a running spring.
 An ancient wood stood there, defiled by no ax,
 and in its midst a grotto, thick with twigs and branches,
 30 making a low arch with close-fitting stones,
 a prolific source of water. Concealed there in the cave
 was the snake of Mars, distinguished by its golden crest;
 its eyes gleamed with fire, all its body swelled with venom,
 its three tongues flickered and its teeth stood in triple ranks.
 35 When the descendants of the Tyriann race had reached
 the grove with their unpropitious step, and the pitcher they let down
 into the water had made a sound, the blue-green serpent raised its head
 from the long cave and gave out a horrible hissing.
 The pitchers slipped from their hands, the blood left
 40 their bodies and sudden shaking seized their stunned limbs.
 The snake twisted its scaly coils in writhing
 knots and, with a spring, bent itself into immeasurable loops,
 then raised up more than half its length into the air
 and looked down on the whole copse with a body as large as,
 45 were you to see it all, as the one that separates the twin Bears.

- Without delay, the Phoenicians, whether they were preparing arms
or flight, or whether fear itself was keeping them from either,
were brought up short: some were killed by its bite, others by a drawn-out
crushing, others by the corrupting exhalation of its deadly venom.*
- 50 *The sun, now at its highest, had made the shadows very small:
Agenor's son was wondering what the delay was with his companions
and he went to track them down. His shield was a skin
stripped from a lion, his weaponry a lance with a tip shining iron,
a javelin, and a spirit too surpassing any weaponry.*
- 55 *As he entered the copse and saw the slain bodies
and, on top, their victorious enemy with vast body
licking their bitter wounds with its bloody tongue,
"Either I shall be an avenger of your death, most faithful
bodies," he said, "or a companion." As he spoke, he picked up in his
right hand*
- 60 *a massive stone and sent the great thing off with great exertion.
The blow would have moved high city walls
with lofty towers: the serpent remained uninjured,
and was protected by its scales as if by a breastplate, for the hardness
of its hide repulsed the mighty blows from its skin.*
- 65 *But with that hardness it could not defeat the javelin too,
which lodged in the middle of its stiffly curving spine
and stayed there, while the whole iron tip sank down into its guts.
The snake, maddened with pain, twisted its head round onto its back,
inspected its injuries and bit into the spear lodged there*
- 70 *and, even when with much force it had loosened it on every side,
it could hardly wrench it from its back; even so, the iron tip stuck in its
bones.
Then indeed, when this fresh grievance had been added to its
usual anger, its throat swelled up with full veins,
and a whitish foam flowed round its noxious jaws;*
- 75 *its scales scraped noisily on the Earth, and black breath
came from its Stygian mouth to infect the corrupted air.
The snake would at one point curl up with its coils making a vast
circle, then it would stand up straighter than a length of planking,
or be carried forward in a mighty rush, like a stream swollen*
- 80 *by rainstorms, and with its breast push aside the woods standing in its
way.
Agenor's son withdrew a little and absorbed the onrush
with his lion skin, and slowed the jaw's assaults
by thrusting out his spear; it raged and inflicted vain
injuries on the hard iron by pressing its teeth against the point.*

85 By now the blood had begun to flow from its venom-bearing
 palate and had bespattered and stained the green grass;
 but its injury was slight, for it was retreating from the blow
 and bringing its hurt neck back and, by withdrawing, keeping
 the stroke from going home and letting it go no further,
 90 till Agenor's son, following through, pressed in the iron tip
 that he had hurled against its throat, until an oak blocked its
 retreat and its neck and the trunk were pierced together.
 The weight of the serpent bent the tree which groaned out,
 for its trunk was being scourged by the last part of the tail.
 95 While the victor was gazing at the size of his vanquished enemy,
 a voice was suddenly heard (it was not easy to know
 from where, but it was heard): "Why, son of Agenor, are you looking at
 the serpent you destroyed? You too will be a serpent to be looked at."
 For a long time he was fearful and lost his color together with
 100 his presence of mind, and his hair began to stand up straight with
 chilling fright;
 but look, his patroness had glided down through the upper air,
 Pallas was there telling him to turn the Earth over and plant
 the viper's teeth, from which his people was to grow.
 He obeyed and, as he drove his plow and exposed a furrow,
 105 he scattered the teeth, the seeds of mortals, as bidden, on the ground.
 And then (it is beyond belief) the plowed field began to be disturbed;
 first to appear from the furrows was a spear tip,
 soon there were head-pieces with dyed plumes nodding,
 there soon emerged shoulders and a breast and arms loaded
 110 with weapons, and a crop of shield-bearing men began to grow.
 Even so, when the curtains are brought in a theater on a feast day,
 figures rise, showing their faces first,
 and gradually the rest of them, and they are drawn up in a smooth glide
 till fully displayed with their feet set on the bottom edge.
 115 Cadmus was terrified by this new enemy and was preparing to take up
 his arms;
 "Don't take up," cried out one of the people created
 by the Earth, "and do not plant yourself in our civil war."
 And with that, he struck one of his earth-born brothers
 with his firm sword at close range; and fell himself to a javelin from long
 range.
 120 And that one too who had sent him to his death did live longer
 than him, but expired on the breath he had just taken in;
 and the whole throng raged in the same fashion, as the sudden
 brothers fell in their own war from mutual injuries.

*And now these young men, whose lot had been so brief a span of life,
125 were striking their blood-stained mother on her warm breast,
and there were five surviving, of whom one was Echion.
He, at Tritonis' behest, threw down his weapons to the ground
and both sought and gave a pledge of peace with his brothers.
The Sidonian exile took them as companions in his task
130 of establishing a city, as ordered by the oracle of Phoebus.*

The real significance of this myth was never understood. Diodorus the Sicilian rationalized that Cadmus' battle against the serpent was the saga of the founding of Thebes.^{13, 14} One should not be deluded by the myth's few concrete geographical details. These places merely mean that the hero or his descendants had settled on those lands, conserving their heroic deeds. Modern mythographers, however, were not that far off in supporting Pausanias' and Diodorus' versions, including their claims of having discovered that the reptile Cadmus had killed was a horned viper, an Egyptian viper having two scaly horn-like prominences on its back.¹⁵

The Jungians, like their master, believed that the serpent represents the taboo of incest. To them the dragon and the serpent are symbolic representations of anguish arising from the consequences of disobeying the taboo.¹⁶

It would be foolish to think that the Cadmus myth originated from the mere killing of a serpent or from a hidden incestuous impulse. Certainly, the serpent can symbolize an event or a historical fact, yet it was of such extreme importance that it became a stellar allegory and was represented as a constellation.

GEOGRAPHIC INTERPRETATION OF THE CADMUS MYTH

The legendary battle of Cadmus against the serpent can be compared to a slightly out-of-focus image, where the capricious play of light and shadow creates such bizarre configurations that not even the greatest exercise of the imagination could make out its true meaning. When, after successive attempts, one can "focus" the reality that originated this myth, the previously unrecognizable image loses its ambiguousness, and finally reveals its significance.

If the serpent Cadmus fought is not a reptile, then, what is hidden behind the allegory? Is it a river? Are there other battles against rivers in mythological literature? Not only do they exist, but this poorly understood allegory brought criticism to Homer: Philostratus reproached him for the

implausible battle of Achilles against the river Scamander, accusing Homer of being an impostor.¹⁷

Another memorable battle was that of Heracles against Achelous. This river quoted in Book 21 of the *Iliad*, could not necessarily refer to the largest river in Greece, as generally presumed, but to a big river, comparable to the ocean. Pausanias quotes Achelous as the judge of all rivers.¹⁸ Where could the “greatest of rivers,” the “Father of Waters” be located?

An echo of the battle between Oceanus and Heracles can be noted in a story, where Oceanus agitates the solar embarkation transporting Heracles to the Hesperides, ceasing to do so when the hero threatens it with his spear.¹⁹ The Achelous River was represented in many forms; according to Sophocles, it adopted the forms of a bull, a dragon and a man with the head of a bull.²⁰ Fig. 2 shows Heracles in battle against Achelous. In Aetolia, on the Greek mainland, according to Lucian, Heracles’ battle against the river was represented by a dance.²¹

Another mythological creature that is mistaken for the monster defeated by Cadmus is the Hydra of Lerna, whose name means water serpent. Represented with numerous heads, its number varies from five to one hundred²² (Fig. 3). Furthermore, some authors say that, as soon as one head was severed, one or two others would sprout in its place. Hesiod, the geographer of mythology, indicates that this creature was located in the far land of the Arimasian, below the earth.²³

There was always a suspicion that actual events were behind the legend of Heracles’ battle against the Hydra and the Achelous River. Yet, even if it were possible to prove the existence of these events, according to Moreau de Jonnes,²⁴ the myth cannot be fully explained; one would still need to know why reality was hidden behind such allegory. Perhaps there will never be a complete explanation for these legends; nevertheless, starting from Ovid’s version, an effort will be made to lift the veil that has concealed the truth of Cadmus’ myth for so many millennia.

Cadmus, whose Semitic name means “East,” is related to the vigorous killer of the Hydra, Heracles, classically identified as Melkart, the Canaanite “Lord of the Town.”²⁵ Considered a civilizing hero, who traveled the world, colonizing and civilizing humanity, and overcoming the Canaanite “Lord of the Town.”²⁵ Considered a civilizing hero, who

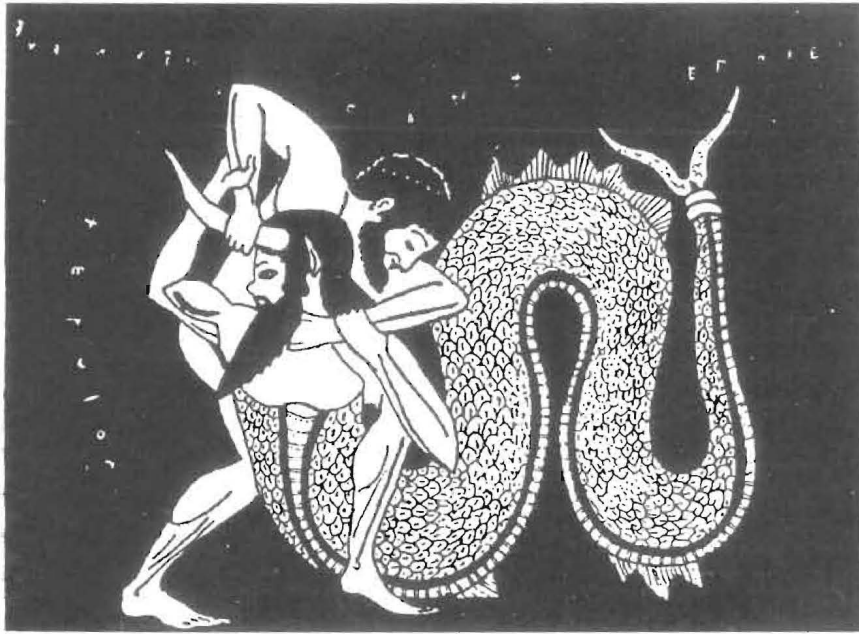


Figure 2 . Allegorical battle of Heracles against the Achelous River.



Figure 3. Heracles wrestling with the Hydra of Lerna.

traveled the world, colonizing and civilizing humanity, and overcoming ferocious animals, Melkart is also considered the protector of navigation, the principal activity of the Phoenicians.

Some gods are frequently confused with this hero: Hermes Psychopompos,²⁶ or Hermes the conductor, as he was called by the Greeks, because he led souls to Hell; and Apollo, the killer of the monstrous snake Python. The multitude of heroes and gods involved in battles against serpents and dragons makes one realize that it would be pointless to tackle this myth from the heroes' side. One has no choice except to face the dragon.

Cadmus perhaps had killed several snakes, of various sizes. The snake, however, that immortalized him had nothing to do with reptiles, except for its appearance. To confirm this, one must pay attention to the enormous size of the creature, declared in verses 44-45: *...and looked down on the whole copse with a body as large as, were you to see it all, as the one that separated the twin Bears*. That is to say, comparable to Draco, the boreal constellation located between the Great Bear and Little Bear. This is not a literary hyperbole; rather, it is a mythological allegory, which could hide reality.²⁷ This reality appears if one took these verses literally.

In astronomy one knows that the distances between stars are comparable to geographical distances on the earth, if their respective arcs are projected over a sphere. The polar projection of the arc between Tanin, the star of the head of Draco, and Giansar, at the extreme end of the tail - when superimposed on the polar projection of South America - shows the Draco constellation coinciding with the length of the Amazon River (Fig. 4). The exact fit of the stellar and terrestrial arc segments, here, is a favorable coincidence, since the arcs suffer some distortion. The larger segment near the polar region appears contracted, while the smaller segment near the equator expands.

A detailed trigonometric calculation shows that the Draco constellation exceeds the geodesic arc between the headwaters and the mouth of the Amazon River by 15°. This discrepancy does not disqualify the interpretation, since the allegory only deals with a comparison of arcs rather than their exact measure. The present interpretation, which identifies the epic battle of Cadmus and Heracles against an immense snake (sometimes explicitly located in the Underworld) as an allegory representing the conquest of the Amazon River, allows one to comprehend the significance of the hydra's heads. These heads would

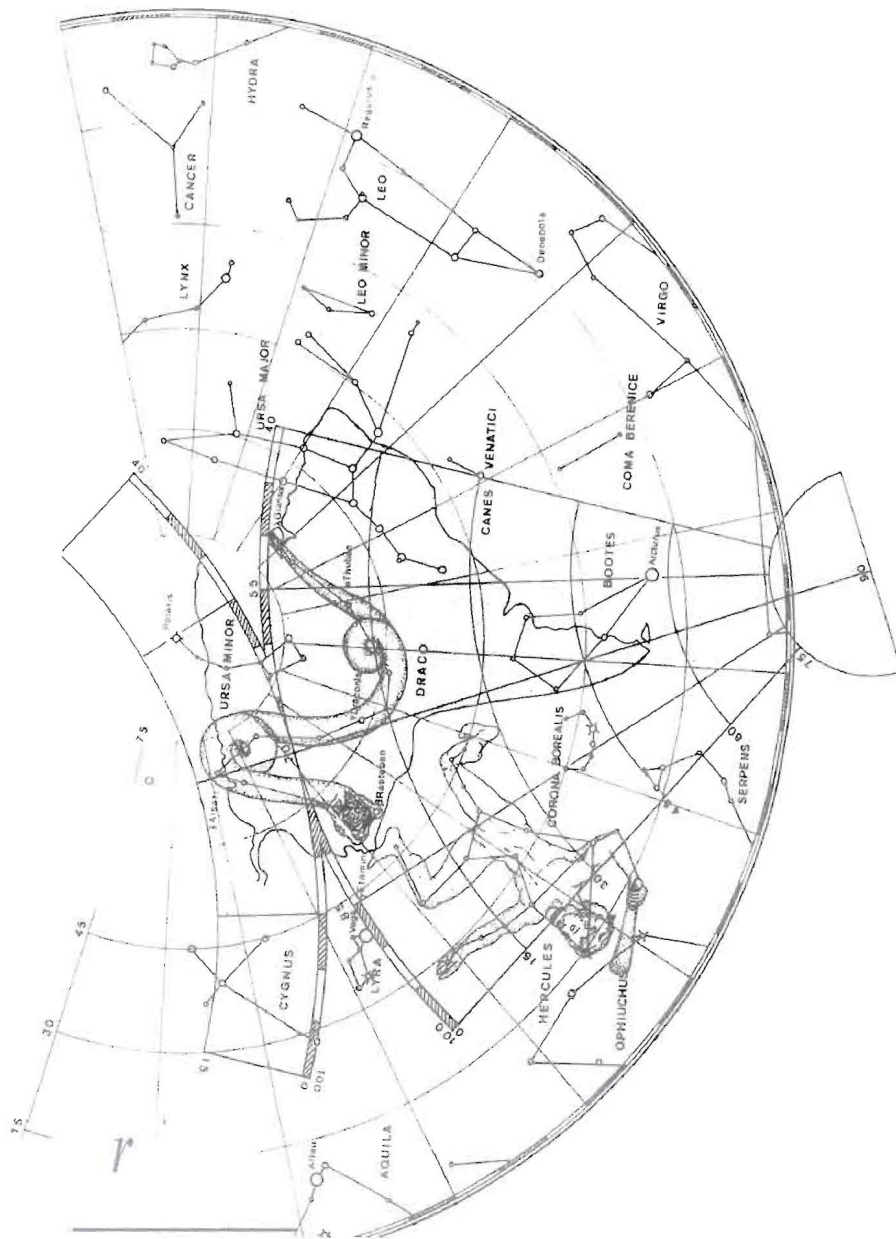


Figure 4. Projection of polar coordinates of the Boreal Constellations. (sector of 210 deg.) over South America (sector of 60 deg.) which allows to visualize the apparent dimension of Draco over the earth's surface.

likely represent the principal tributaries of the Amazon which, likewise, could be two, five, or more than one hundred. One need only look at a map to see the intricate water network of the Amazon Basin (Fig. II-2, Chap.II “Journey to the Mythological Inferno”). If one were to “cut across” this network in a straight line, by clearing a path through the forest, then for every river that one would “cut across,” there would be one or more ahead, giving the explorer/adventurer the impression that the number of rivers increase in arithmetic progression the nearer one approaches their headwaters.

To locate the land in which Cadmus will have to establish a city, one must decipher the oracle of Phoebus (verses.10-18). Phoebus (Φοῖβος) means “The Bright One.” This is a two-fold myth, since this is one of Apollo’s names, who was given the power to emit oracles, as well as the name of the sun. In verses 20-21 - *The cow stopped and lifted her lovely forehead with its tall horns toward the sky* - there is an allusion to the constellation of Taurus, where the vernal equinox remained during the fourth and third millennia, and was considered the beginning of the year in archaic astronomy.

Ancient mythologists identified the constellation of Taurus as the celestial representation of the metamorphosed god that had abducted Europa. Through this association the constellation was called *Portitor* (boatman), *Europae* or *Agenoreus*, by Ovid, referring to the abducted and her father, respectively. Martial even named it *Tyrinus*, referring to Tyre, the country of Cadmus.²⁸ According to the myth, Europa had been abducted by the god and transported over the sea by the bull swimming in the waters; hence, the constellation was represented accordingly, showing only the top side. This is, precisely, the impression produced by the constellation of Taurus, when it sets toward the western horizon. According to our thesis this myth refers to an oceanic voyage. Arriving on the Brazilian coast after crossing the Atlantic Ocean, guided only by the sun and the stars, the Tyrian navigators looked at the constellation and listened to the waves breaking on the shore, observing the episode immortalized in verses 20-23: *the cow stopped and lifted her lovely forehead with its tall horns towards the sky and, disturbing the air with her mooing as she looked back to her companions following on behind, she sank down, lowering her side onto the soft grass.*

Guided by Phoebus (i.e., the oracle and the sun), and the constellation of Taurus, Cadmus reaches an unknown land, verses 24-25: *Cadmus gave thanks and planted kisses on this alien land and greeted the unfamiliar*

fields and mountains. According to verse 28, he disembarks in a virgin forest: *An ancient wood stood there, defiled by no ax.*

In the present geographical interpretation, the beginning of the battle against the “snake” corresponds to the discovery of the Amazon River and of Brazil. The geographical position of the mouth of the river seems to be in verse 50: *The sun, now at its highest, had made the shadows very small...* Despite the position of the sun denoting midday, it is improbable that time has any importance in the discovery of a continent. This verse contains “encapsulated” information on where the Tyrians battled the enormous aquatic “snake.” This corresponds to the equator where, on the average, midday shadows are shorter than at any other latitude.

In subsequent verses, Ovid poetically describes the battle against an immense and fierce “serpent,” which curves and twists unto itself, forming immense coils. It is not difficult to interpret this as allegorical descriptions of the innumerable islands and the winding course of the Amazon River. Anyone familiar with the majestic river recognizes, in these poetic descriptions, the impression that the monster of nature causes on the soul. “The Amazon is, without a doubt, the greatest of rivers,” declared Father João Daniel in his pre-scientific description of the Amazon,²⁹ calling it “Paraná Petinga” (White Sea), even though its most common name in Tupi³⁰ was “Paraná Uasú” (Large Sea). Without making the slightest allusion to the myth of Cadmus, he imagined the Amazon River to be an uncommon dragon.

The Theban allegory of the “snake” is a masterpiece of poetic creativity. Nevertheless, it was not able to transfigure completely the true nature of the “aquatic monster,” as revealed in verses 77-80: *The snake would at one point curl up within its coils making a vast circle, then it would stand up straighter than a length of planking, or be carried forward in a mighty rush, like a stream swollen by rainstorms, and with its breast push aside the woods standing in its way.*

The poisoned breath of the serpent, quoted in verse 49: “*killing (the Tyrian navigators) with the putrid breath of its deadly venom,*” recalls the Styx, the greatest river of Hades, described by Hesiod as “*an unpleasant and moldy place which even the gods loathe.*” In verses 32-33 there is an allusion to the gold, which is particularly abundant in the Peruvian Andes (the snake’s crest): *distinguished by its golden crest, the eyes of the snake gleamed with fire, and all its body swelled with venom.* In this allegory the shiny metal, which incited men to undertake the most perilous nautical endeavors, appears to be

associated with volcanoes. In fact, history reports a dozen active volcanoes in the Andes, which poetically could have been described as eyes of fire. In particular, there are several volcanoes in Ecuador's eastern Andes, from which slopes a number of rivers spill their waters into the Napo, Pastaza and Santiago, important tributaries of the Amazon River.

The existence of extensive volcanic activity in the Andes, which the geographical interpretation of the Cadmus myth appears to suggest, allows one to understand the meaning of verses 72-76: *Then indeed, when this fresh grievance has been added to its usual anger, (that is, the river which, at this point in the battle, corresponds to its headwaters), its throat swelled up with full veins, and a whitish foam round its noxious jaws; its scales scraped noisily on the earth, and black breath came from its Stygian mouth to infect the corrupted air.* The foam that dribbled from the pestilent lips of the serpent, i.e., from the river, is a poetic description of the very light and porous volcanic matter, which is less dense than water. When it condenses, after flowing through the fissures and volcanic vents, it is called pumice. Pumice fragments were frequently seen floating on the waters of the Amazon. According to Raimondi, the pumice came from a volcanic region located in Ecuador, through which the Pastaza River passes, carried by it to the Amazon River.³¹

The association of volcanic activity with the Hydra of Lerna can be easily identified in Greek literature. When referring to the fetid smell of the Anigrus River, which originates from a mountain in Arcadia, Pausanias writes that the unpleasant exhalation was due to the Hydra's venom.³² The exhalations alluded by Pausanias are none other than the usual gases emitted by sulfurous hot springs and active volcanoes.

The topography of the "snake" leads to unexpected results, which appear spontaneously. It is not easy to interpret the meaning of verse 34: *Its three tongues flickered.* But the following verse, *and its teeth stood in triple ranks,* which describes the fauces of the snake, is very significant. The mythographers of antiquity, including Apollonius Rhodius, narrate the sowing of the Dragon's teeth in an obvious sense, be it real or symbolic; no one made the slightest insinuation that they could be mountains, which in fact are odontoid (from the Greek, *οδοντοειδής*), i.e., toothlike. This interpretation leads one to consider the topography of the Andes. The Andean range is formed by high snowcapped mountains, running along the western side of South America. Starting from the Collao Plateau, where Lake Titicaca is located, the mountain chain splits into three

principal branches, which are then rejoined further North in Pasco, Peru, and in Loja, Ecuador. Therefore, if the snake which Cadmus conquered is an allegory of the Amazon River, then the triple row of teeth is an allegory of the triple row of mountains, where the headwaters are situated. In this light, Cadmus' sowing of the teeth would mean that he, the civilizer, cultivates or introduces the teaching of agriculture, the manipulation of seed and the implements required for cultivation in these "teeth," interpreted, here, as the Andean range.

The incredible event described by Ovid, *the miraculous harvest of the dragon's teeth*, allows one to deduce that Cadmus, on arriving in the Peruvian Andes, encountered a multitude of armed warriors, fighting an obstinate fratricidal battle, i.e., a nation "civilized" to the point of killing one another in a fatal civil war; with arrows, spears and everything that the deadly god of war - called Aucayoc by the Peruvians³³ - put in their hands.

Strange coincidence that nearly 3,000 years later, the Spanish conquistadors, called "viracochas" by the native Peruvians, saw the same barbarous scenes of a fratricidal battle. On that occasion, the warriors were fighting over a decadent empire, divided between Cuzco's legitimate heir, Huáscar, and his brother, Atahualpa, thus facilitating the Spanish conquest.

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.³⁴ 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.³⁵

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 Gutierrez de Santa Clara, in the late 16th century, stands out for being simple and informative.

In the villages of Paita, Puerto Viejo, and on Apuna Island, Gutierrez³⁶ relates, the Indians used, since time 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:³⁷ *“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:³⁸ *“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.³⁹

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 (αφρος = foam). Hesiod⁴⁰ (*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.^{41, 42, 43}

Viracocha was also described as a venerable old man with a beard, holding a staff⁴⁴ 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.⁴⁵ Because of the moral and religious content of the Viracocha legends, he was identified as Saint Thomas.⁴⁶

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, obliged 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.⁴⁷ 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.⁴⁸ The high sodium content indicates that the lava was quite fusible. The black color could 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.⁴⁹ 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

monolith was found at the archaeological site of Sechin (Casma), related to the Chavin culture, on the Peruvian coast, north of Lima Department. Radio carbon⁵⁵ 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 at midpoint.⁵⁶ 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,⁵⁷ 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.

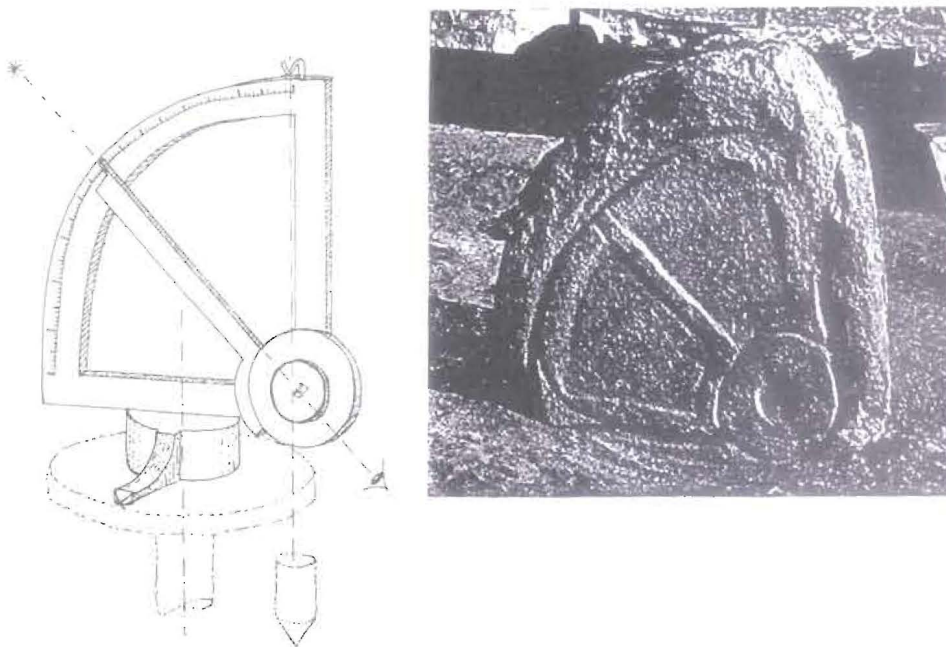


Figure 5. The Sechin monolith (circa 1000 B.C.) with bas-relief, analogous to the drawn quadrant beside (a).

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.⁵⁸

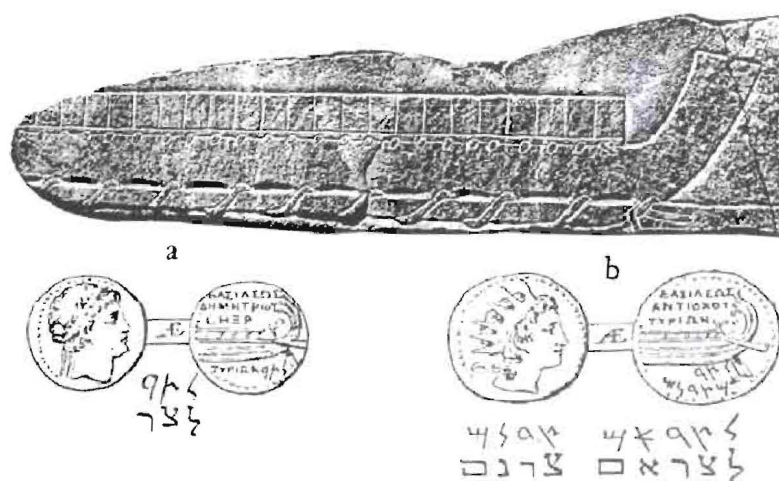


Figure 6. Phoenician-like vessel engraved on Sechin's monolith. The main figure shows one of the pair of Sechin monoliths which, like banners, are located at the entrance to the principal temple. The incomplete figure, purposely sculpted on those monoliths, coincides with the vessel represented on Phoenician 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 Littérature de l'Académie Royale des Inscriptions et Belles-Lettres*, T. 30, p. 427, Pl. II, Paris, (1764).

In Chicago's Natural History Museum, there is a cedar vessel measuring 32 feet (9.6 m) in length.⁵⁹ 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 naval engineering, measuring 42.6 m in length⁶⁰ (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.⁶¹ 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.⁶²

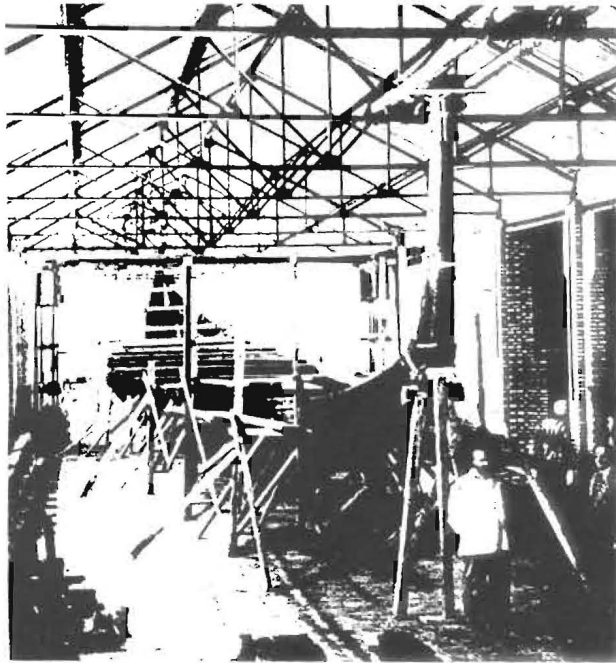


Figure 8. Vessel, 42.6 m long, found next to the pyramid of Cheops.

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. Keramopoulos.⁶³ 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' rays and over its ashes nothing was constructed, as it was considered a sacred place. The excavations of Keramopoulos, 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, *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 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.⁶⁴ 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.

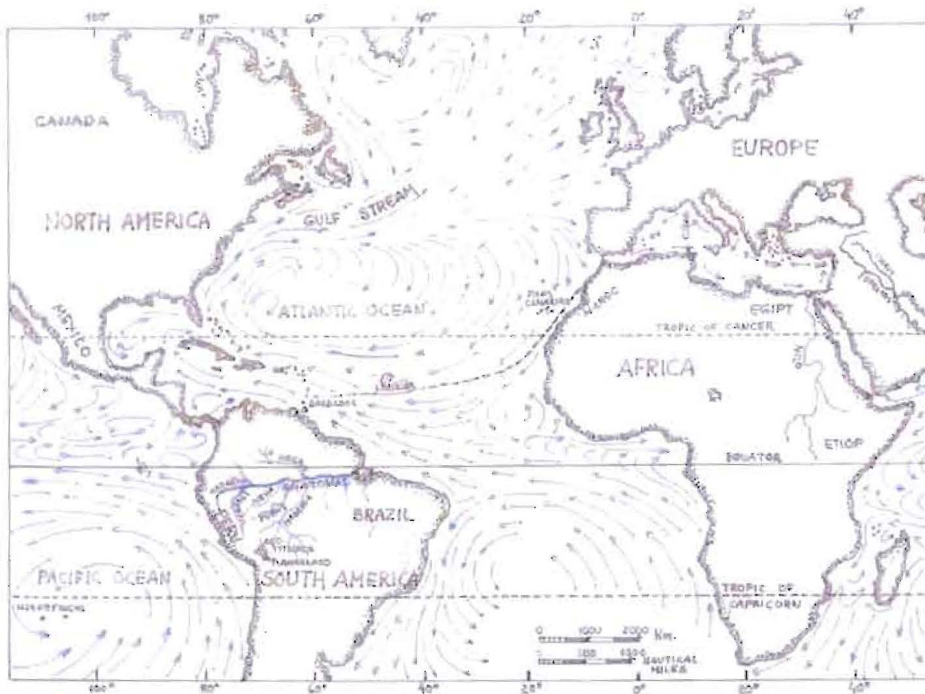
Pausanias (*Pausanias*, Book III, 24, 3) recounts that the inhabitants of Laconia preserved a series of myths about the Underworld or Hades.⁶⁵ The inhabitants of Brasiae say they have a story found nowhere else in Greece. They narrate that the daughter of Cadmus, Semele, after having given birth to Zeus's son, Dionysus, was locked in a chest and, together with the infant, 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 Greek, means the action of the waves washing up an object on the beach.⁶⁶ One must, then, reconsider the origin of the name "Brazil." Could it really have originated from the Semitic *brxʿl*, 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.

ADDENDUM

THE OCEAN'S STREAM SURROUNDING THE EARTH



Thor Heyrdahl published a study (67) in which he has shown the feasible routes by which ancient seafarers might have crossed the ocean to reach the Americas. According Heyerdahl, a powerful current start 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 (68). He wanted to prove 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 (69). Near Safi are also the stupendous megalithic ruins of the Phoenician city and port of Lixus. Their sun-oriented megalithic walls, fitted together with perfection similar to Incan constructions. Summarizing the importance Lixus had in ancient times, Heyerdahl describes it with these words (70): "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-worshippers 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.*

In “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, Matthew 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 (71):

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 Arctic 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 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 course, but much of this information was kept as 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 from North Carolina, flowing northeast across the Atlantic. The Gulf Stream flows at a rate nearly 300 times faster than the flow of the Amazon River. The velocity of the current is fastest near the surface, with the maximum speed of 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 (72).

THE HUNDRED-HEADS 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 (73). To accomplish this feat, Hercules acquires from Helios the vessel in which to cross the Ocean's stream (74).

There are three contenders concerning the mythological representation of Draco. By far the most commonly accepted version of Draco's arrival in the heavens, however, is that Draco was the dragon killed by Cadmus (75). 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 (76). Due to the precession of the equinoxes, one of the stars of Draco, probably α Thuban, 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 navigator of the southern hemisphere below 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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27. a) Referring to the significance of the allegory, Pausanias says the following (Book VIII, VIII, 3-5): "When I began to write my history I was inclined to count these legends as foolishness, but on getting as far as Arcadia I grew to hold a more thoughtful view of them, which is this. In the days of old those Greeks who were considered wise spoke their sayings not straight out but in riddles." Hence Pausanias relates that, in those times - obeying an oracle - the river Ophis of Arcadia received the homonymous name of a dragon or a snake (Ophis means "snake").

b) The word ἀλληγορία (allegory) was used by Cicero for the first time (*Oratory*, 27) and by Plutarch (*De la lecture des Poètes*). Before these authors, the symbolic or allegoric meaning was called υπονοια, supposition or conjecture.

c) "Those reflexive minds and critics who tried to penetrate the significance of the myths," said Paul Decharmes, "were convinced that besides its apparent external significance, the myths had a hidden internal one." "By its nature all poetry is enigmatic," said Socrates in *Ila. Alcibiades*. Paul Decharmes *La Critique des Traditions Religieuses chez les Grecs*, p. 272, Alphonse Picard et Fils, Paris, 1904.

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Acknowledgements

I wish to thank Dr. Ney Vernon Vugman for helping with the edition of this paper and to my brother Silvio Mattievich for revising the text.

I'm searching publisher for the 2nd edition of my book

JOURNEY TO THE MYTHOLOGICAL INFERNO

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