ASTRONOMICAL SUPPORT FOR PELLECH'S INTERPRETATIONS OF THE EPOSES OF THE ARGONAUTS AND THE ODYSSEY

by

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Summary

Astronomical support is presented for the historical interpretations by Pellech, of the eposes of the Argonauts and the Odyssey, that they are real accounts of circumnavigation of earth. The support in the form of depictions includes the formation of a constellation and archaeological representations of constellations that commemorate the voyages. Additional support is provided in the form of a variety of independent determinations of the era of the voyages.

Evidence of the occurrence of the voyage of the Argonauts includes the formation of the constellation Argo, which was the largest ever created. Also, a Mesopotamian cuneiform depiction of part of Argo and the constellation Canis Major represents an event of the epos. The era of the voyage is established with the evidence of the creation of Argo and a quartet of zodiacal constellations, and ceremonies with the star Sirius which is indicated in the epos. Also, the era is marked by the egress of the conjunctions of Jupiter and Saturn from the constellation of Aries, which relates to the ram with the Golden Fleece.

Evidence of the occurrence of the Odyssey includes a depiction of the same part of Argo and Canis Major, mentioned above, in the astronomical display at Dendera, Egypt. The era of the Odyssey occurs about the time of the emergence of the Phoenicians as a seafaring power, and coincides with the use of Sirius to mark the summer solstice and the formation of another quartet of zodiacal constellations.



Introduction

THE DISCUSSIONS here are related to the historical interpretations of Jason and the Argonauts (1), and Ulysses' Odyssey (2) by Pellech. Each of the voyages were traced continuously with details of the eposes related to numerous specific geographic sites over the earth. The basic differences between the both eposes are that the Argonauts started out from Mesopotamia and sailed eastwards around Cape Horn, while Ulysses likely started out from Canopus, Egypt, and sailed westwards around the Horn.

At this purpose the interpretation of the two eposes, the "Odyssey" (Homer) and the "Argonauts" (Apollonios of Rhodes Island) by Christine Pellech has to be mentioned.

<u>The Odyssey – an ancient circumnavigation of the globe</u>

The fundamental error in the interpretation of the Odyssey by Homer and the Argonauts by Apollonios of Rhodes Island assumption that the knowledge of the journeys came to us from the old Greeks. The Greeks only recorded the journeys but did not know where they took place. As far as the Odyssey is concerned, the Phoenicians were the actual sailors who were following the instructions of the old Egyptians. The highest priests and the Pharao were the only ones able to write them down, to analyze them exactly and to comprehend the basic points. To the rest of the population, only a coded message was let to know - the wanderings of Ulysses.

The voyage of Ulysses was given a Greek background, the search of Telemachos for his father Ulysses. Absolutely independent of this framework is the journey of Ulysses. It starts and ends in Egypt. Thus, the view of the world changed: The earth was not seen as a disk anymore, but as a globe as was the Egyptian understanding. The Phoenicians, therefore, were able to sail around the world

in a westerly direction. They were the best mariners of their time, and their ships were more adaptable than the caravelles of Columbus and Magellan. Magellan sailed the same route as Ulysses, and both needed two years actual sailing time, not counting the stops. The conditions for both were alike — they had to sail with the wind and the ocean currents.

The code of the paper of the Odyssey is the Phoenician concept of Og - the concept of a circle of water surrounding the earth. In the voyage of Ulysses, this circle of water can be divided into four successive parts of the ocean: 1. The Grey Sea - the Mediterranean; 2. The Okeanos – the Atlantic; 3. The Violet Sea of the prophet - the Pacific and the half of the Indian Ocean as far as India; 4. The Read Sea (here you find the wine- or redwine-colored sea of the Odyssey) - The Sea, the Red Sea of the old Erithraean cultures, the ocean between India and Africa - the Arabian Sea. Nowhere in the whole iourney of Ulysses this principle is contradicted.

AFTER THIS introduction should be given a short abstract of the different stations of the wandering of Ulysses.

On the first station of his journey, Ulysses meets the Lotophages on the Libyan coast – North Africa. Some of his companions eat of the lotos fruit – a narcotic. He brings his friends back to the ship by force and ties them up. In the old cultures, narcotics were known and taken.

On the next station, Ulysses encounters the Cyclopes. They are placed in the south of Tunisia. The Cyclopes are the tallest and most beautiful people – Herodotus describes them as two to three meters tall! In this area, Barry Fell found the Tifinag-inscriptions.

On the third station, he meets the Lastrygones in Norway. This is a conclusion on the basis of the exact description of the fjords and the specific position of the sun – long days and short nights. Moreover, the Lastrygones are giants like the Cyclopes. The Ogam writings which Fell found in Norway stem from this area as well.

ULYSSES' next destination is the Island Aiaia where Kirke is living. Judging from the proportion of light – polar days and polar nights –it can only be an island of the Lofotes off the shore of Norway.

Kirke sends Ulysses to the realm of death or the underworld – the geographic underworld, the world below where they are living, the other side of the globe – America. In the realm of death, Hades, the prophet Teresias will give Ulysses directions on how to come home. America is also the empire of death of the sun, here it dies and rises up again every day. It is logical, therefore, that Japan is the land of the rising sun.

At that time, the mariners of the old cultures were unable to sail against the Gulf Stream. The crossing of the Atlantic had, therefore, to take place in the high north, as described in the Odyssey. Ulysses arrives in the land of the Cimmerians – Labrador of Newfoundland – during the polar night. From there, he travels to the valley of the St. Lawrence River which is described very exactly both in the Odyssey and in the Argonauts. Among other things, world-wide the plane tree appears at frost in this region only.

At the confluence of the Pyriphlegeton and the Kokytos, an arm of the Styx, a rock marks the entrance to the realm of death. It could be found out that at the point where the two rivers, the Ottawa and the St. Lawrence, an arm of the Styx – the Niagara Falls, join, there is a rock, the Scout Royal in Montreal. Here is the entrance to the realm of death. In the area of the Ontario Lake near Niagara Falls and the St. Lawrence river, Bery Fell found engravings on the rocks in Ogam and Tifinag writing. Point of time: 1750 B.C. The first part of the voyage, the journey to North

America, is an interpolation, referring to the navigation around the world.

Of which way home does the prophet tell Ulysses? As seen from America, he has to cross the Violet Sea to the island of Threnakria – India-, and from there to travel back home – but not across the Oceanos – the Atlantic! Ulysses returns to Kirke across the Atlantic, making use of the gulf Stream. Kirke helps him to master the dangerous sea route.

Ulysses travels along the European coast in a southerly direction. Arriving in West-Africa, he makes use of the ocean current of the Canarian basin in order to cross the Atlantic. After the crossing, he could have landed in Brazil but that's exactly what Kirke had warned him against. He has to sail along the Sirenes! Ulysses had been warned of the deadly cliffs.

THE NEXT STATION is the island under fire and smoke - Tierra del fuego! Kirke had instructed him to sail along the large rocks the Andes! Making use of the South Passat Drift, Ulysses crosses the Pacific and lands at the great rocks - the inhabited islands - to take water and food on board. After passing through a narrow sea - the Torres Strait between Australia and New Guinea - and after another long voyage Ulysses arrives at the island of Threnakria - the three cornered island -India. From there, Ulysses sails across the Arabian Sea which is called the wine- or red-wine-colored Sea - the Erythraean Sea of the old cultures. In the sultanate of Oman lives Calypso. Here, Ulysses stays for seven years, until the gods permit his home-coming.

The last part of the journey takes him through today's Red Sea to the Sinai peninsula, the native country of Alkinoos, the king of the Phaeaks - Egypt. Ulysses crosses the Red Sea to the island of the Phaeaks. The latter will sail him across the Grey Sea. The country where Ulysses landed also has to be located

at the Red Sea and the Grey Sea – the Mediterranean. The circle of the ancient circumnavigation of the globe – in westerly direction – has been closed with the arrival in Egypt.

The Argonauts – a world cultural history of the antiquity

Furthermore, the overwhelming number of descriptions handed down by Apollonios of Rhodes in his masterpiece "Epos of the Argonauts" has been the subject of many different interpretations. After having traced back the Odyssey through the Phoenicians to the Egyptians, there was the question, could this also apply to the Argonauts. This was easy to clarify: Apollonios of Rhodes Island had been educated in the Alexandrian Library in Egypt where he had written his masterpiece in its first performance. And if his knowlege originated from Egypt, we have to answer the question if the Golden Fleece was a real animal fur or if it was just a synonym for a coded mythological motif. After considerable research there could be found the following conclusion: In the conception of the old Egyptian mysticism the fur was a symbol of an intermediate stage between death and rebirth. The ram symbolizes the two masculine basic forces -Re and Osiris - the expression of the spiritual force and the capicity of procreation. The golden colour of the fur is supplemental indication of the sun.

AS THE OLD Egyptians endeavored after to the reborn past death in the beyond, the theft of the Golden Fleece – the daily rebirth of the god of the sun – was a guarantee to live on in the hereafter. But if the fleece of the golden ram did not really exist and was only a motif for the old Egyptian way of thinking, it was then impossible to rob the fleece. But which declaration must now be taken as a basis for the journey?

The voyage of the Argonauts presents an excellent background. There the world history of civilization, including the whole knowledge concerning different countries, their inhabitants, the seas and the possibilities of navigation were described. And the key necessary for the interpretation of the Argonaut's voyage lies in the beginning of the Odyssey. Homer gives the decisive indication near the nymph Calypso which is situated in Southern Arabia: The navel of the sea. The navel in Egyptian mysticism means the prime origin of men. So the navel of sea represents the beginning of men on the sea — the start of navigation.

OUT OF THE declaration of the river and of the "Argo-depature", a strait, we can deduce that the voyage of the Argonauts started in Mesopotamia. From there the descriptions concerning sea-faring have been transmitted. It is essential now to mention that the journey of the Argonauts can be divided into three parts. The first one represents the circumnavigation of the world by the East, the second the circumnavigation by the West - exactly described in the Odyssey - and finally the third - a poor description - the sailing around Africa. But drawings from Herodotus concerning the navigation around Africa by the Phoenicians commissioned by the Pharao Necho. Now we will concentrate on the first voyage, the voyage to the East. The voyage to the West is analyzed in the abstract concerning the Odyssey.

The place from where they begin to sail is Mesopotamia. The journey leads them first through the Persian Gulf to the Argo-departure, a strait, the Strait of Hormus. Then they sail in the Indian Ocean and continue their navigation in the direction of the East. They sail along the Asiatic coast to India, which is one of the oldest trade routes of mankind. This route must have been known in all the old maps, but it cannot be reproduced anymore in detail. Only through the roaring canyons of Ossa and Olympos

was it possible to point to the origin of the Indus from the Himalayas. Archaeologically the trade relations between Mesopotamia and the culture of the Indus Valley were proved by the discovery of the seals of the Indus Valley civilization.

AT THE ISLAND Lemnos, which is the next station, the sailors can see a peak of the "Thrake Athos", the Himalaya. Herodotus describes "Thracia", the territory of the Scythes, in the east of Anterior India, bordered in the East and South by the sea. There they land on the holy island of Electra, which refers to an island of the Maldives at the equatorial-channel. There the cultures of the sun, which have been the ancient high cultures, had their holiest places. Furthermore Thor Heyerdahl found in the museum of Lothal (the culture of the Indus-valley) a large number of cowrie-shells, which could only have originated from the Maldives. He also discovered ceramics and neolithic pottery under the sea, which hint at the territory of the South Chinese Sea, the Malayan peninsula and the Philippine Islands, and this was already two thousand years before Christ.

Moreover the Argonauts travel from India to the east and arrive at the Chersonesos, which Herodotus describes as a mountain range in the south-east corner of Asia, stretching to the sea. This voyage was difficult, but not impossible.

The next station are the "Doliones" on an island before "Phrygia". Herodotus describes the migration of the "Phrygii", formerly called "Briges", from Europe across the whole of Asia to China. The "Doliones" have their residence in Taiwan.

From here the Argonauts reach their next destination: the "Bebryces", who are the inhabitants of Japan. In the "Konjiki", the oldest Japanese history of the empire, could be found the myth which was mentioned in the epos of the Argonauts. It tells of a fight

against the king of the Bebryces, which everyone who passed by this land had to engage in. These fights could be deduced as the traditional Somu-wrestling. In the case of the Argonauts the fight ended with the death of the king of the Bebryces. After that they travel across the Bosporus, the strait, the "Bering-Strait", to America.

Their next destination is the prophet Phineus. The latter lives at the seaside, behind it is a mountain-range. On the peak of the mountains live the "Harpyiae", the birds which steal the prophet's food. As the people with whom Phineus lives together make sacrifices to honor Sirius, we can determine their geographical position: the mountain range with the Harpyiae are the Andes with their colonies of birds. Sirius, which stands there in the zenith – the reason for the sacrifices – has its position at the 22nd degree of latitude – south latitude. At this position Phineus hands over the pigeon to the Argonauts.

PHINEUS directs the Argonauts through the "Symplegades", the moving rocks, which we find also in the Odyssey as the "Planctae", Tierra del Fuego. At this position the pigeon should first cross the dangerous rocks. If she is alive after passing this terrible place, the drive Argonauts should through "Symplegades". After sailing around South America they sail in a northerly direction the mainland must be on the right side - and pass by Africa. By the Southern Equatorial Current (Passat-Drift) they reach Brazil, where the seer warns them of the reefs which extend in front of the coast - identical with the Sirens in the Odyssev.

They travel along the American coast to the north and meet the "Mariandyni" in the St. Lawrence River Valley. This passage is similar to the underworld of the Odyssey. Here we come to know that the death of the king of the Bebryker (Japan) is already known. Furthermore the Mariandyni have already conducted war a few times against

the Bebryces, because of the occurrence of iron

THE HEROES make their way again from the American coast to the South to the Thermodon, the Amazon. "No river can be compared to the Thermodon because no other river sends out so many waters." Amazonian tribes with female culture live in the riversystem and the territory is also called as such in the epos: the Amazonian. Then they travel to the Rio de la Plata and from there to the Rio Parana, where Kolchis is located and from where the Golden Fleece is stolen.

The flight goes round Africa in the Indian Ocean back again to the "Strait of Hormus", to the Persian Gulf. That is where the circumnavigation of the world ends in the direction of the East.

But now they have to visit Kirke. Therefore they have to sail to the islands of the Lofotes along the coast of Norway. So they sail round Africa and reach Kirke. There we find the connection to the Odyssey — the circumnavigation of the earth in the direction of the West, which ends in the Red Sea in Egypt with the king Alkinoos.

From there a rather poor description of a circumnavigation of Africa has been transmitted, a description which we discover again with Herodotus. But more interesting is the passage where the ship is carried across the desert by the Argonauts. The territory where this takes place is situated in West-Africa to the "Triton-Sea" (today's Schott-el-Djerid in southern Tunisia). The march on foot across the dessert indicates that the Phoenicians already knew caravan routes through the Sahara – similar to the present day ones.

Finally it should be remarked that the Epos of the Argonauts by Apollonoios of Rhodes Island represents a part of the history of world culture, which has been certainly transmitted by the old Greeks but has not been understood by the latter. The knowledge, which forms the basis of all this, shows us a mosaic-picture composed over the centuries, mediating the knowledge of the world of the old Egyptians.

Constellation Argo

The most conspicuous evidence of a great voyage was the constellation Argo Navis, which was a sailing vessel, until it was divided into 4 smaller constellations in the 18 th century by the French astronomer Abbé de Lacaille. (Figure 1) These modern constellations include Carina (keel), Puppis (stern), Vela (sail), and Pyxis (compass). The figure assigned to Pyxis, the compass, is probably incorrect and will be addressed subsequently.

ARGO WAS THE largest constellation ever created, extending over 57 degrees in declination, from just above the analogous Tropic of Capricorn to just below the analogous Antarctic Circle. The vessel, which was placed on the Milky Way, appeared to be sailing along the broad white river of stars. It contained Canopus, the second brightest star in the night sky, as part of its keel, and was positioned just east of the famous Southern Cross constellation. The vessel could only be seen in its entirety from geographic latitudes below 15 deg. north. As it is for nearly all the constellations of the celestial sphere, the figure associated with the group of stars is not readily outlined by connecting the brighter stars with lines.

This sailing vessel constellation seems to be too grand to be just a commemoration of the quest to acquire the Golden Fleece. Jason only chose the quest as a challenge, rather than a want or need. And not only was Argo the greatest constellation ever created, the story of Jason's voyage is filled with more allusions to other constellations and individual stars than any other Greek myth. According to Staal (3) there are more than 2 dozen constellations, and more than 6 stars

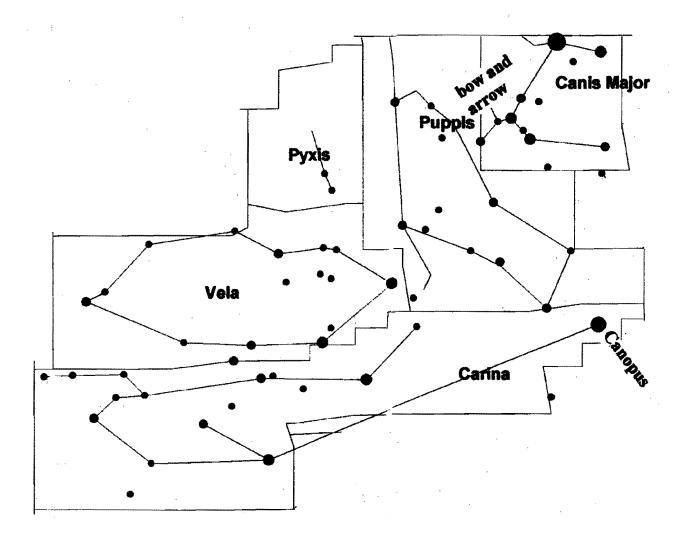


Figure 1: Stars of the constellation of Argo, which has been divided into 4 smaller constellations: Carina (keel), Puppis (stern), Vela (sail), and Pyxis (compass). (Redshift software printout)

alluded to. A circumnavigation of earth over a lengthy time interval, however, would leave a vivid memory of the numerous stars visible at night. It is estimated by Pellech (4) that the length of the voyage of Ulysses, without stops, was about 2 years, which is the length of time for Magellan to retrace the same path.

CANOPUS played an important role in both eposes since it appeared overhead, due to the rotation of earth when the voyagers passed around Cape Horn. Although the two eposes were separated by many centuries, the star could be seen overhead during both voyages at the Horn because the star is located near the south ecliptic pole which is relatively insensitive to precession of the spin axis of earth. Cape Horn was the most difficult part of the voyages since the waters there are stormy and contain dangerous ice floes much of the time. Canopus may have been considered as a guardian during their ventures.

The lowest star of the four paddles of the constellation Argo, Canopus, represents in the mystical representation the helmsman of Osiris (14). Osiris was the God of death in Egypt. The position of Canopus, shining at the southern end of South America, corresponds to the geographical position of the "Planktai" in the Odyssey as well as to the "Symplegades" of the voyage of the Argonauts. Canopus is located in the geographical underworld (America), which also symbolizes the mystical underworld, the realm of death. The journey finally leads from the underworld, which side means the demoniac side to the other side, to life.

But where did the vessel Argo go to on sky? The star constellation of the Argo can be found on the Milky Way. Robert Bauval and Graham Hancock recognized in their book "Keeper of the Genesis" (11) the following: "The visual correlation, once observed, is obvious and striking on its own. Additional confirmation of its symbolic significance,

however, is provided by the Milky Way, which the ancient Egyptians regarded as a kind of 'Celestial Nile' and which was spoken of in archaic funerary texts as the 'Winding Waterway'."

In the west of the Milky Way we can find the star Canopus. It has to be pointed out that a town of the same name exists in Egypt. But where is this Egyptian town "Canopus" located? In fact it is situated in the most western part of the Nile delta on the Mediterranean coast. This information is very recent — it dates from January 2002. A description can be found in the Journal GEO (12) explaining the location of Canopus under the sea. It is very probable that the old circumnavigations of the globe in western direction (Ulysses) started from this secret point — Canopus.

The following comments on this topic are by Prof.Louis Winkler:

MNAVIGATION during the early exploration of earth was not a precision activity since the explorers did not know precisely where they wanted to go. But there was some need in navigation for maintaining a constant latitude or travel along a meridian, which was accomplished with naked eye sightings of celestial bodies. During the day compass directions and latitudes could have been established from knowledge of the seasonal variations of the sun. During the night compass directions could be established with the knowledge of the ephemerises of large numbers of stars, while latitudes could be established with elevations of the celestial poles. The night time use of stars, sometimes referred to as the star-path method, may have been in use at a very early stage of the development of navigation, as is hinted at in Homer's Illiad.

It is likely that the spherical nature of earth was strongly suspected by sailors long before the first millennium BC when the Greeks are credited with developing quantitative ideas regarding the shape and size of earth. (5) No matter where the sailors were on the oceans, when they approached another vessel it always emerged and enlarged over the horizon the same way, which could only happen for a spherical shape. It is also likely that sailors had a feeling for the approximate size. As they traveled along a meridian, the elevation of one of the celestial poles could be seen changing. The geometry they needed to determine latitude was simply that the elevation of the pole was equal to the latitude. This type of observation provided the important information that the earth was finite in size. Figure 2 depicts this geometry with a view perpendicular to the plane of the meridian, along the observer's horizon plane. The latitude and elevation of the pole are equal since lines that are perpendicular to the sides of an angle form an equal angle.

Era of Jason's Voyage

THERE IS EVIDENCE that the largest constellations of the celestial sphere were the first constructed. The evidence is found in the zodiacal constellations which are located along the ecliptic that were used to mark the locations of the equinoxes and solstices. Since these 4 cardinal points occur at every 4 th zodiacal constellation, with time, they drift along the ecliptic due to precession of the spin axis of earth, defining 3 quartets that mark the seasons. If the quartets are listed in decreasing average size over the millennia, a precession of the equinoxes backward indicates the quartets were created at the epochs according to the listing below by Gurshstein. (6) And it also implies that space the celestial sphere was extravagantly at first, with the final quartet being squeezed into the remaining space.

Gemini. Virgo, Sagittarius, Pisces 5600 BC +/- 150 890 sq. deg. Taurus, Scorpio, **Aquarius** Leo. 2700 BC +/- 250 805 sq. deg. Aries, Cancer, Libra, Capricorn 475 sq.deg. 1200 BC +/- 400

Since Virgo, which marked the first spring equinox is the 3 rd largest constellation in the sky, with an area of 1,294 sq. deg, it suggests Argo, with 1,667 sq. deg. was one of the first placed in the sky too (7). An estimate of Argo's epoch of creation is not possible using the technique for the zodiacal constellations since it is not part of the zodiac.

But, the story of Jason and the Argonauts is sufficiently detailed astronomically at one point to allow the era and time of year of that part of the voyage to be determined. According to the story they sail down the west coast of South America where they encounter the seer Phineus. Here the people worshipped the star Sirius in a setting stinking with guano and great mountains to the east of them. The seabirds that produce the guano in the Andes tend to be found off the coasts of Peru and northern Chile. Clues as to the time of year and position in the sky when Sirius was worshipped can be found in other tropical societies of the Maya and Aztec of Mexico, and the Incas of Peru.

In 150 AD at Teotihuacan, the Maya constructed an alignment to the Pleiades which passed overhead and rose with the sun on one of the 2 days it passed overhead. And the Aztecs, who were successors to the Maya, believed that the world would end when the Pleiades stopped overhead at midnight. At Cuzco the Incas constructed alignments to the sun on the 2 days it passed overhead, as well as the day the sun passed through the nadir (directly downward). When celestial objects achieved the overhead position it was believed that they were most powerful and applied to the society below.

DURING THE three millennia before Christ, in the parts of Chile and Peru in the tropics, Sirius passed overhead everyday at a different time of day, which includes the two days of the year the sun did also. Because of precession the latitude at which Sirius passed overhead became less negative with time, and

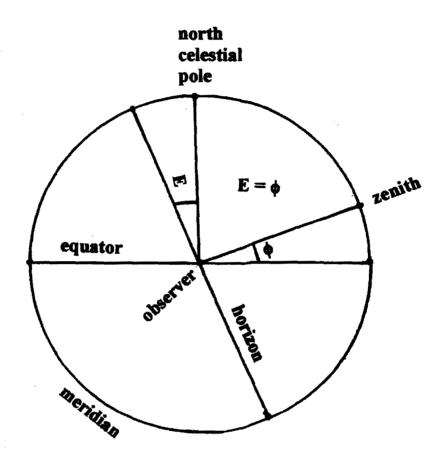


Figure 2: Geometry showing that elevation of north celestial pole (E) equals geographic latitude (ϕ) of observer.

occurred in November and January. But there was only one era, around 2300 BC, when Sirius passed overhead at midnight, which is the most auspicious time to conduct ceremonies. The establishment of this era suggests that Argo may have been created around that time, since it agrees with the era of the creation of Gurshtein's 2 nd quartet of zodiacal constellations.

ONE OF THE interesting features of the ephemeris of Sirius, the brightest star in the night sky, is that it also rose simultaneously with Canopus, around 2500 BC. The dramatic rising of Argo and Sirius may have been the inspiration for the Mesopotamian cuneiform depiction of a Bow and Arrow constellation, consisting of stars of Puppis, the modern stern of Argo, and Canis Major, which includes Sirius (7). The bow and arrow are shooting Sirius, which is marked in Figure 1.

The middle of the 3 rd millennium BC, as an era of occurrence of the voyage, is further emphasized with the inclusion of the ram as the source of the Golden Fleece in the Argonaut adventures. This was the era in which the conjunctions of Jupiter and Saturn were egressing from the constellation of Aries the ram. While these conjunctions occur about every 20 years in constellations separated by 120 deg., the resultant equilateral triangle's apexes rotate eastward with a period of about 2800 years. The last time that the conjunction occurred in Aries in ancient times was about 2400 BC.

The star constellation of the vessel Argo has an extension from 25° south latitude to the Antarctica with 73° south latitude. Canopus is located on the 56° south latitude and the constellation pigeon on the 41° south latitude. All these latitudes have geographical and mystical backgrounds. You can find all these star constellations in the book "Atlas der Sternbilder" (13).

The celestial Argo is located on the South American continent. Sirius with 22° symbolizes the place, where the prophet Phineus hands over the pigeon to Jason, with the order to let the bird first fly through the Symplegades. If the pigeon is able to do so, the Argonauts can continue their journey through this dangerous position. The Symplegades correspond to the star Canopus at 56°. In this sector between the 22° (Sirius) and the 56° (Canopus) south latitude the pigeon is on board of the Argonauts' vessel.

Approximately in the middle of the two latitudes, in front of the west-coast of the South America, exists the star constellation "pigeon". This corresponds exactly to the voyage of the Argonauts. The position of the pigeon is at 41° which means the middle of the extension of the voyage, where the bird was on board. This is the interpretation from the geographical point of view.

Moreover we have another possibility to interpret the pigeon, namely the mystical one. The old Egyptians believed in rebirth after death. The theft of the Golden Fleece, which corresponds to the daily rebirth of the god of the sun, was the guarantee for a life in the hereafter. Pellech interpreted the location of the rebirth of the sun, the place, where Jason stole the Golden Fleece, in the area of the Rio Parana. The constellation "pigeon" is not located over South America, but in the west over the Pacific Ocean. This is a coded motive for the old Egyptians. In this case the pigeon represents the bird of death. The birds' location in the west of South America indicates that it has successfully passed the realm of death and has been reborn. Both, the Fleece as well as the bird represent the soul which means spiritual force.

Ulysses' Odyssey

THE DISCUSSIONS by Pellech (9) indicate that the Odyssey represents additional accounts of circumnavigation of earth, but this time it was accomplished by Phoenicians

around 1200 BC, at the time they became a seafaring power. As in the case of the Argonauts the accomplishment was commemorated with a Bow and Arrow constellation, this time on the circular astronomical display on the ceiling of the temple at Dendera, Egypt (Figure 3).

This association with the Egyptians is further emphasized by the existence of the Egyptian seaport called Canopus, which is the apparent point of departure of Ulysses. This is another example of an astrogeographic mapping from the heavens to earth. The best known of these astrogeographic mappings concerns the relative positions of the 3 large pyramids at Giza and Orion's belt discussed by Bauval and Gilbert (10).

THE 13 th CENTURY BC was a utilitarian one for Sirius since it rose with the sun at the summer solstice at the time the Nile flooded. This was also the era of the construction of several of the grand monuments of Egypt by Ramses II. It seems significant that this method of marking a cardinal time of the year occurs during the same era that the 3 rd and last quartet of Gurshtein's zodiacal constellations, which also mark the cardinal times of the year, were instituted.

It is interesting to note that if the Phoenicians had sufficient detailed knowledge of the voyage of the Argonauts, they could have stopped on the shores of Chile-Peru, 11 centuries later, where the Argonauts had visited Phineus, and they would have found the people there still able to worship Sirius with the star overhead. Instead of conducting the ceremony at midnight in December, however, they would have been conducting

their ceremony just after sunset in January. And in each case the voyage would have been time to avoid the winter ice floe season near the Horn, around the June solstice.

IT WAS MENTIONED above that the 18th century figure associated with Pyxis was the compass. This is probably a modern superposition of the instrument on the ancient vessel. If a compass were available to the ancient sailors it is unlikely that they could have used it for circumnavigation of earth. To make a compass useful it is necessary to have maps of magnetic declination, which would have required prior scientific voyages which would have involved many earlier circumnavigations.

Conclusions

There is considerable circumstantial evidence that the eposes of Jason and the Argonauts, and Ulysses' Odyssey were real events. There are both detailed historical interpretations and extensive astronomical support for this assertion. The Argonauts voyaged around the 24th century BC, while Ulysses voyaged around the 13th century BC. The prominent role of the stars in the Argonaut's epos is a result of worldwide seafaring, half of which occurred at night. Finally we come to the surprising conclusion that locations on earth were projected into the sky. These star constellations indicated the way all around the globe and were used by former seafarers.



Figure 3: Bow and arrow constellation from the temple of Dendera, located at the 7 o'clock position on the inner zodiacal band. Compare with Figure 1. (Lehner & Lehner)

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