

## Saint Land of fires and Zodiac

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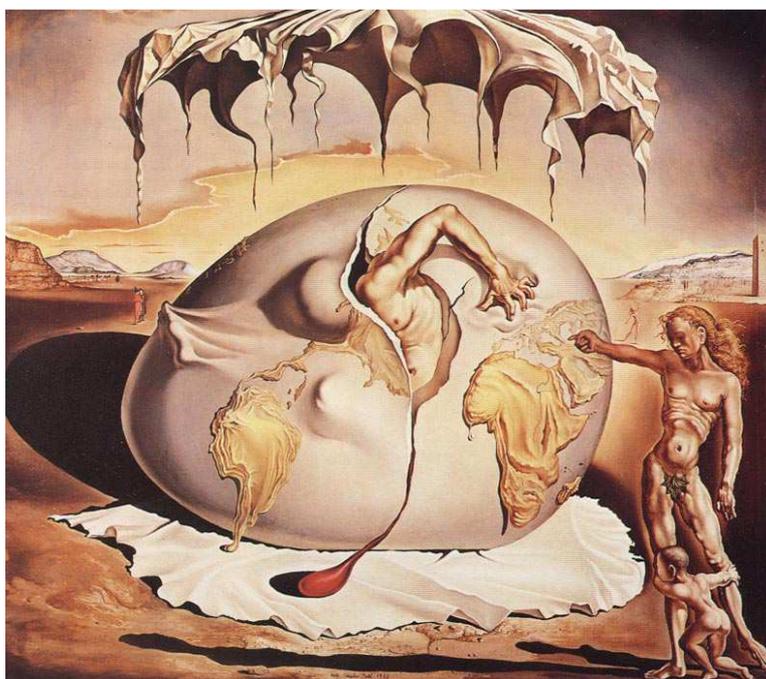
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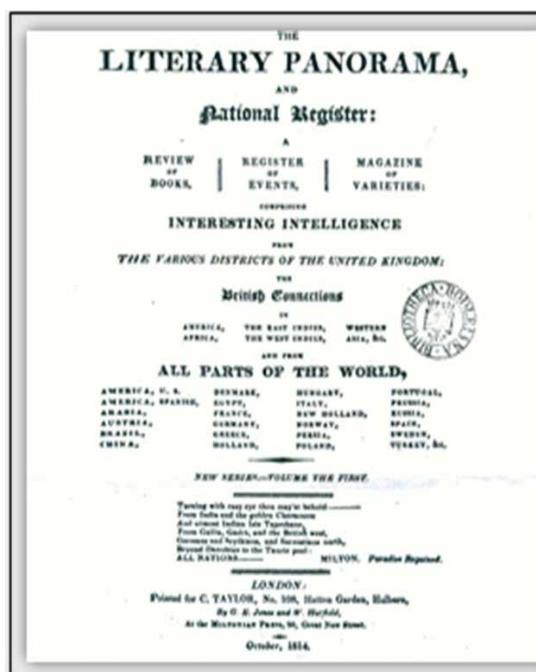
**ABSTRACT:** The article deals with the version of origin (date, place) of Zodiac taken from the book of Carl Schwartz (1807) dedicated to the origin of the constellation and Zodiac. Considering the procession, Schwartz certifies that the constellation was marked as a unique complex by an observer residing on the shore of the Caspian Sea, in Baku, at the latitude of 40 degrees north. He considers the date of origin of the constellation and Zodiac 1400 years B.C. (or 1400 years B.C. - 2800 years B.C.).

**KEYWORDS:** the Sun, the Moon, Zodiac, Baku, Constellation, Planets, Caspian sea.

The origin was mentioned in the article written by Chingiz Kajar "Baku in the picture drawn by Salvador Dali. Zodiac was established in Baku" (Caspi, N11 (27) March 30- April 5, 2013, page 12) (Researches of the Origin and Signification of Zodiac, page 257-270) in the collection "The Literary Panorama National Register: A Review of Books of Events, Magazine of Varieties: Comprising interesting intelligence form, in America, the East Indies Western" (London, October 1814) where establishment of Zodiac in Baku was certified (picture 2). We were interested in it. We decided to consider this fact deeper.

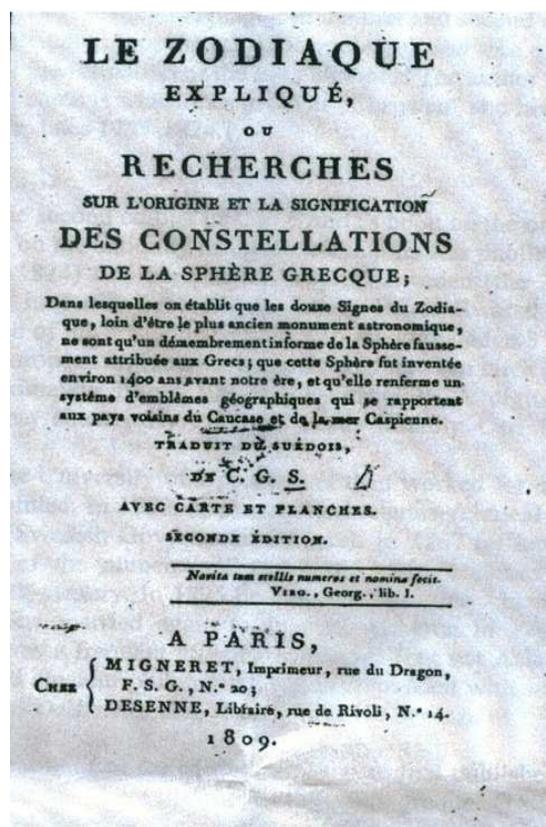


**Picture 1. Salvador Dali. Geopolitics Child Watching the Birth of the New Man. 1943**



**Picture 2. The cover of the collection “The Literary Panorama National Register: A Review of Books of Events, Magazine of Varieties: Comprising interesting intelligence form, in America, the East Indies Western” (October 1814) .**

The book of Carl Schwartz (1807) dedicated to the origin of the constellation and Zodiac is mentioned in the article “Researches of the Origin and Signification of Zodiac” (page 257-259) in the collection “The Literary Panorama National Register: A Review of Books of Events, Magazine of Varieties: Comprising interesting intelligence form, in America, the East Indies Western” (London, October 1814). The mentioned book was published in French language twice in Paris (1807, 1809) (picture 3).



**Picture 3. The title list of the second publication of the book of Carl Schwartz about the origin of the constellations, 1809. The first treatise of Schwartz about the antiquity of the constellation was published in 1807 in Paris.**

Carl Gotlib Schwartz (1757- 1824) is a Swedish writer, astronomer. He was born in Sweden (Nurcheping) and died in France (Paris). The treatise of Carl Schwartz about origin and significance of constellation was written in Swedish language, then was translated into French language and published for several times. Considering the procession, Schwartz states the place and date of origin of the constellation by his own method in this book. He certifies that the constellation was marked as a unique complex by an observer, astronomer residing on the shore of the Caspian Sea, on the saint land with ancient history in Baku, at the latitude of 40 degrees north. He considers the date of origin of the constellation and Zodiac 1400 years B.C. (or 1400 years B.C. - 2800 years B.C.).

Also the astronomer Royal observatory Greenwich Eduard Maunder (1851-1928) agreed with the ideas of Carl Schwartz. As it is mentioned in the London article, according to Schwartz, the size "Chasm" ("Empty zone") was taken as a key to latitude where the founder of the constellation resided. The radius "Chasm" was determined as 40 degree. As mentioned above, considering the procession, the calculation shows that the date of origin of the constellation was 1400 years B.C.

Schwartz analyzes Baku, Babylon, Ancient Greek, Ancient Egyptian, Ancient Indian, Sumerian, schemas of in his book. The Greek schema of constellation contains the mixture of the constellation of Babylon and non-Babylon schema.

The researcher of the treatise of Schwartz writes in the London article: "He tries to present his theory to the readers thanks to the constellation of Zodiac in the form which was watched in the ancient times from Baku (40 nl)" [2]. The path of the Sun, the Moon and the planet is marked on the strip of the constellation. The author of the article "Researches of the Origin and Signification of Zodiac" (page 257-259) certifies that the passage of the Moon through twinkling stars certified the ideas of Schwartz (the constellation was established by the inhabitant of Baku).

Beginning of the recognition of the sky is very simple. The first primitive steps concern to the Stone Age. The human beings of that period saw the stellar carpets overhead every night. Most of the celestial phenomenon repeat: daily path of the Sun, the moon phase, changes on the sky are related to the annual seasons. The people watched the seasonal changes in the nature and related them with celestial phenomenon and tried to fix some regularity which was the basis of calendar. The mentioned calendar was the system of calculation of basing on the visible movements of celestial powers.

Just, practically the needs attracted attention of the people to the celestial phenomenon, to the observation of displacement of the Sun, the Moon, daily movement of stars. Primeval hunters and fishers had to know the life cycle and the path of the migrating animals. The cattle-breeders had to drive the herd to new pastures in time, to determine in time the rainy or drought seasons, to foresee beginning of summer and winter. The farmers were more dependent on the cult of seasonal changes. All of the mentioned facts required establishment of calendar.

The astronomers of the Stone Age wrote their notes on stony pages of the history. The points where the pictures and tables with astronomic date are carved on the rocks is known on the Earth. Naturally, Gobustan is included in the range of such kind of points (picture 4).



*Picture 4. Paintings on the rocks of Gobustan*



The people residing in the different continents, different regions of the continents made parallel observations without depending each other. The measuring results, the observations and conclusions of the peoples belonged to themselves, but converged somewhere. Maybe, because the object of observation was the same for everybody. Observing the movement of the Moon, the ancient observer noted the patterns – the constellation – the group of stars on the stellar carpet of the night sky on the basis of which the pictures, principally the animals surrounding the people were drawn in his imagination. In the result of the observations a map was obtained according to which the path of the moon and the stars, the lamps of night passed through 12 constellations whose names were given on the basis of the remote resemblance with animals and people. The constellations were the background of the path of the Moon. These constellations were called as Zodiac – “range of animals”. The constellation is not a definite sphere in the cosmic space, but only a diapason of directions from the point of

view of the terrestrial observer. In ancient times, the constellation was called expressive group of stars that helped to remember the pattern of the stellar sky and thanks to them it was possible to be oriented in the space and time.

If the Moon was near any bright star at any night, then next night it wouldn't be there anymore and will return there only after 27.3 days. The time period was discovered in this way – the lunar month. The replacement of the lunar phase is ended in 29.5 days. It was the basis of the first calendar which the establishment concerns IX-III millennium B.C.

It was a great discovery that “travelling stars” – planets move from place to place in the Zodiac too.

It was more difficult with the movement of the Sun. The ancient people considered the Sun saint. They considered that the Moon replaced the Sun at night. Observing rise and sunset the people saw that the place where it appeared on the horizon changed a little every day. Observing the place of rising and sunset they found new important regularities in its movement. In summer they marked the summer solstice and in winter the winter solstice. Between two “standings” there were points on the east – west line where the Sun rose for measuring the day equal to nights (picture 5).



**Picture 5. The gnomon-rock. Gobustan**

When the lunar path – Zodiac was divided into the constellations it was discovered that some of them existed on the place of rising of the Sun during the sunrise, and others sparkled on the place where the Sun set. Knowing the constellation preceding the Sun in sunrise and the constellation following it in the sunset, it was easier to determine the constellation between them where the luminary existed. In this was the annual movement of the Sun upon the Zodiac was discovered. Zodiac is 12 equal sectors divided into 30 degrees where the ecliptic is divided. Zodiac is the strip of constellations on the celestial sphere. Ecliptic is the band of Zodiac, Zodiac is 23.5° inclined to the celestial equator and intersects with it in the spring and autumn equinox. Every new month begins with new moon, beginning of the year coincides with spring equinox.

The primal people knew when the solstice or equinox happened as the floods and beginning of the seasons were related with them. The cattle breeders had the spring holiday. It determined beginning of spring, i.e., rising of the Sun from the point of spring equinox and full moon. The holiday was celebrated on the different dates of the calendar. It had to be calculated. Our ancient holiday Novruz is the mentioned holiday. The spring equinox signified revival of the nature and it was considered beginning of the year. Novruz holiday is celebrated today too and only in Azerbaijan.

The ancient people divinized the Sun, they considered that fire on the Earth was sent by God (Sun). The name of Baku city corresponds to the mentioned fact. The name of Baku city is met as Baguan, Bagavan in the sources of the beginning of middle ages. The place name “Bagavan” consists of the root “Baga” and means as “God”, “Sun” in many Indo-European languages. Famous French orientalist of XIX century M.J. San Marten stated that Baku was considered as a saint place because of a lot of sources of oil and gas yields which caught fire naturally. There were the points which fired incessantly in Absheron. Baku was considered a saint place for service of the fire (pictures 6, 7).



**Picture 6. Yanardag (Fiery Mountain)**



**Picture 7. Pirallahi**

The Sun was the first reliable reference point of ancient people. The prehistoric observatories were the facilities – instrument, they noted the place of rise and set of luminaries. These observatories were high stones, rocks, groups of stones put in the certain manner towards the horizon. At the same time such kinds of stones were the first clocks, compasses and calendars. Gobustan of Azerbaijan is the sample for it, it is an ancient book, observatory. The archeological investigations and excavations showed that Gobustan locating 60 km far from Baku was resided by ancient people from the ancient times – Stone Age. “Azerbaijan is one of the ancient civilizations of human being” (Tur Heyerdal) [1].

There is a rock rich with rock paintings describing the Sun and Zodiac in the district Umid Gaya. These paintings surpass other famous constellations. The astronomic scales are caved on the rocks too. These pictures belong to III millennium B.C.

The celestial sphereseen from the Earth is the cosmic space. In the result of daily rotation of the celestial sphere all luminaries describe the circles and flatness which are parallel to the flatness of the celestial equator, i.e., they are moving on the celestial parallels. The center of the celestial sphere is the eye observer. Depending on the geographic latitude the observation place has its own point of rise and point of set of the luminary.

**Therefore, the primal forms of the constellation indicate establishment of the first Zodiac in Baku.**

The astronomic observations related to the necessity to be oriented in time and space appeared at dawn of the human culture. Just then, long before appearance of the writing language and the government, a lot of inventions were made in connection with the place and obvious movement of luminaries in the sky. Thus, the most ancient science – astronomy appeared. Slow accumulation of astronomic knowledge took millenniums. According to the development of astronomy it is possible to judge the total level of the ancient civilization correctly. It is notable to state that the first civilized people related their astronomic knowledge to more distant, prehistoric period of their existence.

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