

## SIGNS OF HYPOTHETICAL FLORA AND FAUNA OF THE PLANET VENUS: RETURNING TO ARCHIVE OF THE OLD TV-EXPERIMENTS

L. Ksanfomality<sup>1\*</sup>; A. Selivanov<sup>1</sup>, Yu. Gektin.

<sup>1</sup>Space Research Institute of the RAS, Moscow, Russia

Habitability of planets is a fundamental question of planetary astrophysics. Some of exoplanets possess physical settings close to those of Venus. Therefore, the planet Venus, with its dense and hot (735 K) oxygen-free atmosphere of CO<sub>2</sub>, having a high pressure of 9.2 MPa at the surface, can be a natural laboratory for this kind of studies. The only existing direct data on the planet's surface are still the results obtained by the Soviet VENERA landers. The TV experiments of Venera-9 and 10 (October, 1975) and Venera-13 and 14 (March, 1982) delivered 41 panoramas of Venus surface or their fragments [1]. The experiments were of extreme technical complexity. There have not been any similar missions to Venus in the subsequent 42 and 35 years. The results of these missions are studied anew. The Venera images ("panoramas") were re-examined using modern processing techniques. As a result of these studies, rather specific objects were observed. In their morphology, some of them recalled Earth living forms. Their striking similarity to terrestrial forms was called terramorphism. The number of detected objects of the hypothetical forms of the flora and fauna of Venus reaches 15.



Fig. 1. Amisada

A dozen of relatively large objects, from a decimeter to a meter in size, with an unusual morphology have been found which are static, moved very slowly or changed slightly their shape. Objects of hypothetical flora and fauna have been found at different areas of the planet. Due to the availability of up to eight duplicates of the images obtained and their low level of masking noise, the VENERA archive panoramas permit identifying and exploring details of hypothetical living forms of Venus. Among them is a 10 cm 'amisada' that stands out with its lizard-like form. On photo (Fig. 1) the amisada is climbing up a stone plates surrounding it.

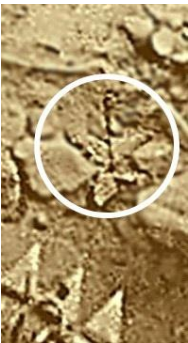
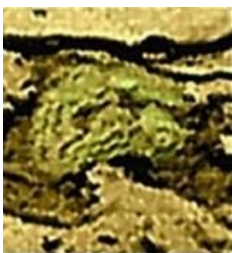


Fig. 2. Stem

The first found "stem" [2] is a thin vertically arranged knotty trunk that has a height of approximately 40 cm and a thickening ("burgeon") on the top (Fig. 2). At its base, on the surface, there is a group of details that resembles leaves in a quatrefoil. The "stem" was located at a distance of approximately 40 cm from the landing buffer of the VENERA-14 lander. There are other stems with flowers. Their position varies slightly with respect to the adjacent stones. As was shown by the animation, changes arise from the swinging of flowers by the wind.



The greenish coiled "snake" about 40 cm long is shown in Fig. 3. Color of the snake is exaggerated. The object actually resembles a convolved snake [3]. The surface of the object is covered by regularly located spotted cells and is decorated by the crest on its neck. The object is positioned in a small (5 to 10 cm) depression. The snake demonstrates small displacements of the body and changes in its positions with respect to stone plates. E.g., the displacement of the crest on the snake's neck in sequential frames attained 3 to 4 cm for 30 min.

Fig. 3. Snake

The scanning cameras of the VENERA landers (1975 and 1982) were intended to produce a general notion about the planet's surface and did not anticipate finding any possible inhabitants of Venus. Nevertheless, certain unusual findings that have a structure similar to the Earth' fauna and flora were found in different areas of the planet. The planet's Venus surface needs for new investigations with better resolution and longer observation. The special mission, if it ever takes place, should be significantly more complex than the VENERA probes.

## References

- [1] Selivanov A.S., Gektin Yu.M., Gerasimov M.A. *et al.* Continuation of the TV Investigation of Venus surface by means of landers. *Kosmich. Issled.*, Vol. 21, No.2, pp. 176-182, 1983.
- [2] Ksanfomality L.V., Selivanov A.S., Gektin Yu.M. Possible Signs of Flora on the Planet Venus. *Global Journal of Science Frontier Research*, Vol.14, Issue 4, 2014.
- [3] Ksanfomality L.V. Hypothetical flora and fauna of Venus. *Acta Astronautica* Vol. 105, pp. 521-533, 2014

## Short Summary

In 1975 and 1982, TV experiments on the surface of the planet Venus with Soviet landers of the VENERA series were performed. The images were re-examined using modern processing techniques resulting in hypothetical discovery of living forms on Venus. Architectural Distancing from the Exit Strateg.