COMPARISON OF BLOB TECTONICS (VENUS) AND PAIR TECTONICS (EARTH)
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Elevated region of Aphrodite Terra is built at least in its
western part (10000 km) by chain of giant ring structures with
diam.of 2500-3500 km(1). They are formed by diapirs of heated ma-
tle material,or blobs,convectively rising to the surface. The
blobs are in different stages of evolution and produce different
topography,morphology and gravity anomalies. Three adjacent cir-
cular to elliptical regions named Region I,Region II(Ovda Regio)
and Region III(Thetis Regio) occupy equatorial arc of about 90°
(fig.2 from(1)). This venusian structure can be compared to
new non-traditional tectonics of the Earth's eastern hemisphere
(2)(fig.1). Here along the equatorial belt with arc length of
about 120° we define three giant interfering ring superstructu-
res (s-ss) related to old AR nuclei (Congolese and Indian) or
subsided Pcm basement (Indonesian)(2,3). Their diameters are ab-
out 5000 km and diameters of cratonal cores ≈ 2500-3000 km. These
and other features are symmetric about the Indian ocean geoid low
(symmetry of rotation at 180°). This pair tectonics explains for-
mation of ring structures and their sectoral symmetric-asymmet-
ric nature by interference of lithospheric waves of four main di-
rections (ortho- and diagonal). Oscillations of the lithosphere
(uplifts and subsidences) are tied to undulations of inner geo-
spheres obeying law of conservation of planet angular momentum.

Similarity of radial-concentric s-ss of the Earth and Venus
has been emphasized earlier(4). We have compared two best studied
ones: Congolese and Lakshmi Planum. Attention has been drawn to
relative positions of deep-seated weakness zones and tectonical
control of large migmatic centres (Afar or St.Helena Isl. and
Cleopatra Patera). Now we stress that not random sizes of s-ss
of the two planets is a basic issue. As was shown for the Earth,
superstructure size is tied to characteristic length of lithos-
pheric wave equal to 3/4 R (R-planet radius). At equatorial belt
dispose 8 such s-ss. It is likely that at equatorial belt of Ve-
num dispose 12 giant rings with wave length ≈ 1/2 R. To above-
mentioned three one can join pronounced equatorial structures of
Atla Regio,Phoebe Regio and others less obvious representing sub-
siding sectors (fig.3).

Equatorial belts of ring s-ss of the Earth and Venus are ra-
ther graphic but not exceptional on the planets surfaces. Similar
s-ss occur at different latitudes of these planets; their reg-
ular spacing (not always seen at first sight) follows from in-
terference of lithospheric waves of different directions and is
an expression of periodic system of lithospheric structures(5).
Pronounced venusian examples of such off-equator s-ss are Laksh-
mi Planum (4),Beta Regio,Alfa Regio,Bell Regio and others; the
Earth's examples are s-ss of off-equator AR cratons.

Characteristic lengths of lithospheric waves responsible for
development of superstructures of two planets are different:3/4R
(Earth) and 1/2R (Venus), but in both cases they are proportio-
nal to the planets radii. Such close relation of lithospheric wa-
ve lengths to the radii is not occasional and has one important
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Symbolic superstructures position along equator

Earth
Superstructure $\theta = \frac{3}{4} \pi$ Earth
Superstructure $\theta = \frac{1}{2} \pi$ Venus

Venus

Formation of standing waves in closed space of planetary lithospheres. Reason for formation of basic waves with various lengths at sister-planets is cosmic and apparently related to position of two planets in Solar system: $\frac{3}{4} R: 1/2 R \approx 1: 0.62$ (year durations). Venusian structure figuratively is "finer" than terrestrial one.

Formation of the ssss occurs against a background of super-long standing lithospheric waves with characteristic lengths more than a radius (2-3 R). These waves are responsible for a general morphotectonic make-up of the planets, in particular, dichotomy, regular ratios of uplifted and subsided planetary surfaces (obeying rule of "gold section").

Venus long-wavelength variations in gravity well correlate with long-wavelength topography (8). The same we note for the Earth for super-long-wavelength topography forming make-up of the planet.

Wave interference model of formation of giant ring structures predetermines their sectoral symmetric-asymmetric pattern. (i.e., Indian Peninsular sector and opposite sector of Central Indian basin in the Indian superstructure). Such pattern we predict for Venus giant rings studied by Magellan.

References:
(2) Kochemasov G.G. (1989) Astronomical Circular, n 1541, 29-30 (in Russian);
(4) ibid. 621-622;
(7) ibid., n 1550, b;