THE AGE OF COVER BASALT FORMATION AND DIFFERENTIATION

Makarenko G.F. *(General Physics Institute of RAS, Moscow, Russia)*
mkrn@kapella.gpi.ru

Structural axial symmetry of earthen shell rejects universally adopted "plate tectonics". The discovery of symmetry is based on tracing of ocean ridges. I made a statement (1993): ocean - onland ridges are the same. Cover basalts are the key.

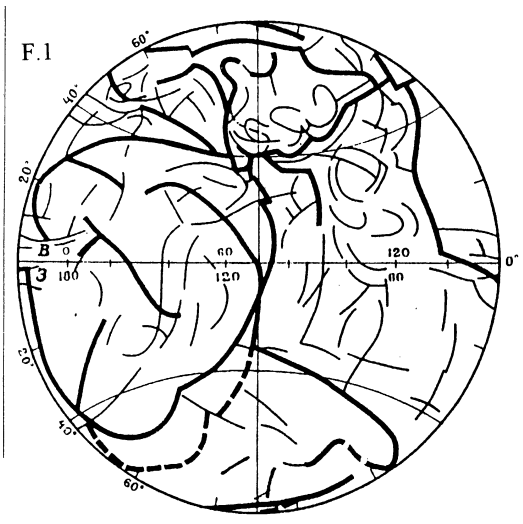
The pattern of global seams of different ages is clear since I have revealed tectonic status of cover basalts (author's books 1978,1983-a, 1983-b, 1993, see in [1] and in *www.gpi.ru/~mkrn/lpsr*). Deposit series containing lava are fixing lava's tectonic position. The series restore the structures of moments of lava forming. Cover basalts are final effusions of geotectonic (geosynclinal = GS) cycles (Tab.1). They are post-orogenic and pra-taphrogenic magmatic pulses of fold zones.

Tab.1 Rows of formations in the geotectonic cycles.

	I	II	III	IY	Y	YI
m.y. N+Q		7				5
30		**7**		6		**5** 4
Pg		6		5		
65		**6**		5		**4** 3
K		5		4		
135		**5**		4		**3** 2
J		4		3		
190		**4**		3		**2** 1
T		3		2		
230		**3**		2		**1**
P		2		1		
280		**2**		1		
C		1				

1-hercinides, 2-late hercinides, 3- cimmerides, 4- nevadides, 5- laramides, 6 - late alpides (Himalaja et al.), 7- modern GS (West Pacific et al..);
rock's series: 1- initial basites, II- shales et al., III - granites et al., IY- orogenic molasses, Y-YI – final basalts: Y- cover, earlier (tholeiitic), YI – taphrogenic, late.

Lavas are lying always over the orogenic series, they are preceeding to rifts (taphrogenesis). Cover lavas are born "instantly" (less than 1 mln.y) at fold zones (arcs) backsides. At arc fronts there are fordeeps. On rear lavas young GS may be born anew. The next fold zone has larger or smaller radii; i.e. the arcs are joining or separating to smaller ones (cycle's activity). The closing of fold zones (arcs) of any scale by their fronts leads to their spread over by basalts from both sides. Thus the oceans are arising with their late rifts and their different lava types (long time volcanism, 1-10 mln.y.) along the closing zones (arcs).

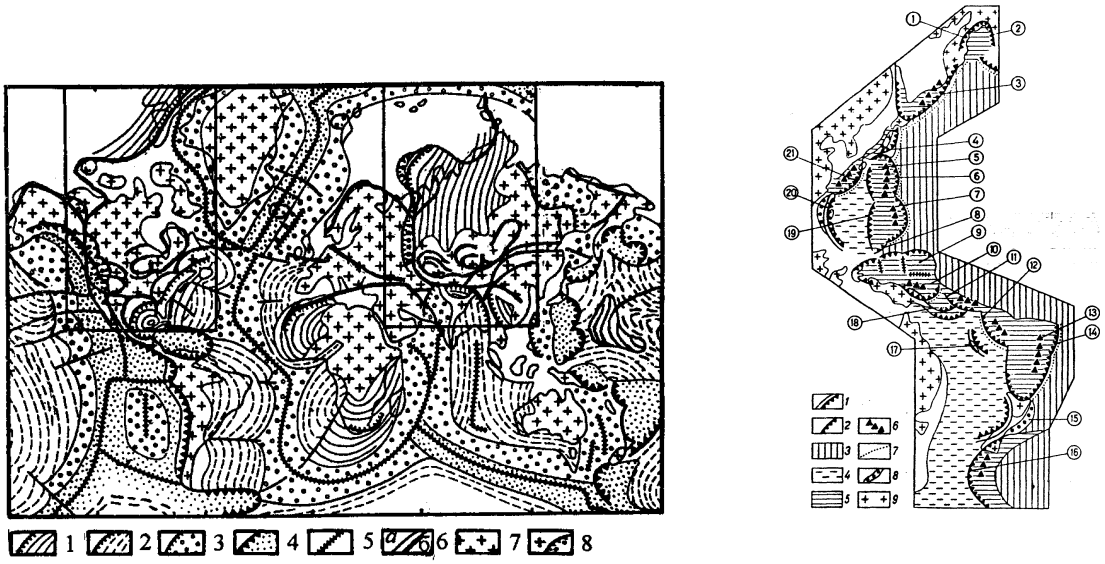


The axial symmetry must be considered as a "manifest verity" (once and forever). It is sufficient to have global geographic and geologic maps only**.**

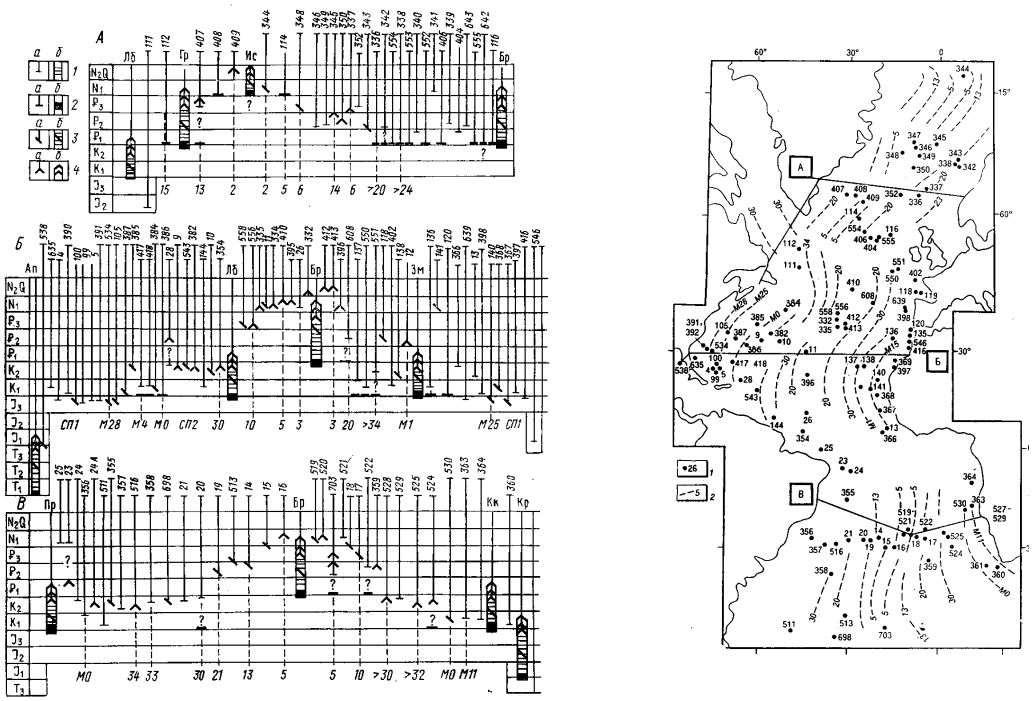
Fig.1 is the author's symbol of this phenomenon. The global seams of Urals – Cordilleras and W.Indic – E. Pacific (60 E- 120W) are in the scheme center.

On **Fig 2.** everyone can see the way to reveal it.

Fig.2, А,Б,В. The ages of basalts and the earthen fold zones , that create their apparition.
А (top, left). 1-4 - provinces: 1- P/T of hercinides and T/1of late hercinides; 2-1/K of cimmerides, 3-K/P of early alpides (verchojanides, nevadides); 4- P/H of laramides); 5- ocean ridges with the rifts; 6- the main faults of oceans; 7- the continents witout the MZ-KZ basalt provinces. 8- In the frames- frontal fordeeps of Ural and of Cordilleras; here only the pre-hercinian structural seams. The late alpinian zones (Hymalaja et. al.) are not shown, their final magmatic pulse is not displayed yet.



2,А (top,right) West Pacific , 1,2 –nevadides, laramides; 3-5 laves: K and older, 4-Pg , 5-N; 6- ridges of collided arcs r; 7- volcanoes on the younger lavas (modern GS) ; 8 – frontal grooves; 9 – the lands.
For 6, A (right.) well-known of the ridges – digits in the rings 1-21 (Oljutor – Rjuku).
2, Б (bottom, left). 1 - 4 а,б – rock's types , (а)-for the drilling holes, (б) – for trapps provinces: 1- sediments, 2- cover basalt lavas, 3- the dolerites of the sylls and dikes, 4-brindled basites of the small floods, tuffs, breccias. Provinces: Лб- Labrador, Гр- Greenland, Ис- Island, Бр- Britain-Arctic, Ап- Appalachian, Зм – of the Island of Green is., Пр- Parana, Кк- Caoco-veld, Кр-Caroo. At the top of such of profile – the drilling holes numbers - N (top) anf S (bottom) clusters. In the bottom - the numbers of magnetic anomalies.



2, В (bottom, right). DSDP stations in the Atlantic. The holes, their numbers for the profiles of left fig. (from N and from S clusters) – at the stretch of numbered magnetic anomalies.

References:

[1] *Makarenko G.F.* Periodicity of basalts, biocrysices, structural Earth symmetry. Geoinformmark, 1997, 95 p.

Electronic Scientific Information Journal "Herald of the Department of Earth Sciences RAS" № 1(21)'2003
Informational Bulletin of the Annual Seminar of Experimental Mineralogy, Petrology and Geochemistry – 2003
URL: http://www.scgis.ru/russian/cp1251/h_dgggms/1-2003/informbul-1_2003/magm-5e.pdf
Published on July 15, 2003