

Re: Owen's Two-Phase Model of Earth Expansion

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From: George (george_at_wtfiswrongwithyou.com)

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"Matt" <matt.edwards@utoronto.ca> wrote in message
news:e25c654e.0503040737.30254351@posting.google.com...

> "Carsten Troelsgaard" <carsten.troelsgaard@mail.dk> wrote in message
> news:<4226f403\$0\$191\$edfadb0f@dread11.news.tele.dk>...

>

>> *I believe one of the EE's favoured points is, that the marine sediments on
>> the crust is the EE evidence that earth indeed was different then
>> (continents had the ocean on top, not next to it). A thorough oceanic earth
>> does, by and large, not erode and deposit at all; compared to the present
>> situation. It obviously did, but I hardly dare consider the relief and the
>> gradients, a rugged earth for sure.*

>

> *Not quite following you here. In EE we would say that in the initial
> phases the Earth's crust was entirely continental (sial) crust.*

This is not possible, as "continental" crust is composed of much more than "sial". This is the problem with making such comparisons – saying that continental rock is "sial" while oceanic rock is "sima". If one looks at the continents, they are composed of many rock types – silica-rich, and silica-poor. There are limestones, shales, sandstones (all sedimentary, by the way), as well as granites, granodiorites, etc, metamorphic rocks or various grades, as well as mafic and ultramafic rock. All of this points to a diverse history, not one single "initial" phase". Additionally, some of the oldest rock now part of the continents are not sialic at all. Oversimplification only makes matters worse.

> *It was more water-covered than today's crust, but gradually emerged over
> time (especially in slow EE). Erosion could have taken place once
> enough basins were present for sediments to be deposited in.*

If the earth was/is expanding, why would the basins even exist?

>> *What do they gain by such a construction? Continental rocks, sima, wouldn't
>> it basically have been placed and composed 'as is' and express a factual
>> decompression of heavier rock at an earlier period and thus loose the
>> observed incentive for the earth to expand by evolving lighter rocks? It's
>> often been pointed out, that the 'lighter rock evolved' is not continental
>> as it preferentially places itself as a heavy oceanic rock.*

- >
- > *You're saying that lighter 'continental' rocks tend to form or be*
- > *deposited on older rocks, which then become denser rocks. But ocean*
- > *crust is formed in situ as more dense rock than the sial rock. This*
- > *process is ongoing. Now some continental rocks are added*
- > *volcanically, but in general the EE picture of lighter continental*
- > *blocks being uplifted by newly formed rocks of heavier density is*
- > *quite simple, even elementary. You might find the paper by Weijermars*
- > *interesting.*

As I've pointed out several times, the basement rock of most continents, or at least part of the continents is composed mostly of mafic rock within ancient rift systems. You cannot look at the geologic history of the ocean basins in isolation from the geologic history of the continents.

- >> *I squinted at the online presentation of Owen's model of expansion. He*
- >> *places plasma in the core with a reference to physicists for details. I did*
- >> *then look for Owen's own credentials since he respects professionalism, but*
- >> *he did not present himself. I have some preconceived notions and no real*
- >> *knowledge on plasma, but wouldn't it's eledged presence (however unlikely)*
- >> *be a result of compression and heat rather than a course for the uppersit?*
- >> *Is there any scientific rationale for plasma to aggregate in space as a*
- >> *precursor for planets?*
- >>
- >> *Carsten*
- >
- > *Where did you find Owen's work online? In his papers he is listed as*
- > *being at the British Museum of Natural History. Is that credentials*
- > *enough for you? In any case, I don't find the plasma core idea that*
- > *compelling.*
- >
- > *Matt*

What do you find compelling?