

## Challenges to creationists in the former Soviet Union

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Until recently, creation research was fairly unknown in Russia. General creation books have been published, but these have limited use in responding to detailed scientific criticism from evolutionary scientists. However, due to the activity of creation ministries in countries of the former Soviet Union, the results of technical investigations of creationists are now becoming available to both the scientists and layman. As a result creation vs evolution debates,<sup>1</sup> with a high level of scientific argument, are now occurring in public forums and over the internet. Not only popularizers of evolutionary hypotheses, but academic scientists—biologists, geologists, physicists etc.—are putting off their research to argue against creation.

### The need for creationist research

Not all creation apologists are ready, or able, to answer their critics. Some have adopted the point of view that Christianity does not need the evidence of creation science at all. Others, in the face of supposed evidence for billions of years, have changed their belief in a recent creation to a position of uncertainty as to what the Bible says about the real age of the Earth and universe. A few previously young-earth and six-day creationists are ready to accept a theistic evolutionary worldview.

It may not be possible for creation scientists to explain all of nature (there is no place for science where all subjects are well-known), but temporary absence of some answers is not a reason to cast doubt on our fundamental biblical point of view. However, it is unacceptable if the doubt about the validity of the creationist's worldview appeared because of lack of scientific grounding, knowledge or information.

If we can respond to evolutionist's arguments with deep scientific understanding of the subject, then the evolutionist's criticism does not look so well-grounded. And, as for all endeavours of science, there is always room for improvement in creationist's models.

### Review of age estimates for submarine placers

As a case study of a successful debate, I would like to

comment on some recent uniformitarian criticism of geological age estimates, which Serguei Tabolitch and I made on the basis of mathematical modelling and field research of tin placers from north-eastern Russia.<sup>2,3</sup> As detailed in our papers, we calculated the age of the submarine placers at about 5,000 years, which contradicts the traditional, uniformitarian age of these strata of 30 Ma, but is consistent with the biblical framework.

Nikolai Borisov—Ph.D. in physics and mathematics—who is a Christian and supporter of theistic evolution and old-earth theory (Institute for Nuclear Protection and Security, France)—made a number of criticisms of our model. We were able to easily incorporate some changes into the model that made our results more conservative. Recalculation of the model indicates an upper-bound age of the placer of between 5 and 30 thousand years. This result is far from the uniformitarian date of 30 Ma and is near to the expected young-earth model age. If one assumes somewhat higher erosion rates (during the recessive stage of the Flood, and during the early post-Flood period), then an age of between 2,000 and 4,000 years is estimated.

### When is the main uniformitarian principle appropriate or not for uniformitarians?

We were, of course, not able to research the geological and sediment movement conditions in the past directly as we can study them today, therefore any interpretation will have controversial points. However, based on the similar grain size assemblage of ancient and recent slope and marine deposits, we used conservative data that erosive energies and sediment transport were not dramatically different from those experienced today.

It is remarkable that in this case where creation geologists have used today's rates (main principle of uniformitarianism—'Present is key to the past') and obtained confirmation of catastrophic geology; uniformitarians reject the conclusion because the results do not correspond to evolutionary doctrine.

### Acceptance of catastrophism in Russian geology textbooks

On the other side of the coin, I have found that some secular Russian geologists are fairly open to the concept of catastrophism. As I presented in my paper at the Kiev Creation vs evolution debates,<sup>1</sup> the geological monographs of Sergei Romanovsky<sup>4</sup> and Sergei Meien<sup>5</sup> provided the following enlightening quotes about geochronology, stratigraphy, paleontology and catastrophism, which I have translated into English:

### Geochronology

'Even in monotonous limestone thickness there are latent gaps (= *breaks, interruptions, hiatuses*)



*The Moscow Paleontological Institute and Museum, a bastion of evolutionary teaching in the former Soviet Union.*

of sedimentation (diastremes). A significant part of the time responsible for formation of the sequence belongs to these gaps. However, having no opportunity to give even approximate estimates of time for these gaps of sedimentation, the geologists are compelled to shut their eyes to this problem.<sup>6</sup>

‘In oceans, the significant part of time belongs to the gaps of sedimentation ... The erosion cannot be considered there as the main reason for incompleteness of the sequence, though other reasons cannot be determined either. The submarine geologists have thought up a successful detour around this difficult problem, having called these time gaps the “non-sedimentation periods”. Thus the geological record ... fixes short intervals of activity divided by considerably longer intervals of inactivity.’<sup>7</sup>

Thus, the real time represented in the geological record, that can be the object of scientific research, is an insignificant part of the age interval attributed to the strata by a geochronological timescale. All the rest of the time is gaps of sedimentation. Moreover, sometimes geological evidence for the gaps is completely absent.

What is the quantitative estimate of the ratio of periods of gaps to periods of deposition?

‘Let a series correspond with ... 3–3.5 million years. The series includes 1,000 elementary cycles of turbidites ... If the formation of one cycle takes 20–30 hours, the entire series is formed in 30–40 months. Pure time of sedimentation is only 0.0001 % of the stratigraphical time for formation of the series. It follows that the entire series was deposited, geologically speaking, instantly.’<sup>8</sup>

‘Because of wide development of the latent gaps ... in conditions of shallow seas, for example, quite often an insignificant part of the total time of sedimentation (0.01–0.001 %) is documented ... the huge latent gaps are also marked in deep-water ocean deposits.’<sup>9</sup>

Being strict adherents to an ancient age for the Earth and observing this discrepancy, the modern geologists are compelled to resort to hypotheses about the existence of huge ‘non-sedimentation periods’. But how can something invisible and not observable, that has no marks in the geological record, be the object of scientific research?

Trying to find the evidences for a large age of the Earth, uniformitarian geologists assert that slow and continuous sedimentation takes place in the central parts of oceans. But:

‘The geological importance of abyssal deposits is insignificant; they are not retained in the geological record.’<sup>10</sup>

Uniformitarian geologists also realize the defects in radioisotope dating:

‘The obviously underestimated speed of modern sedimentation is explained by overestimation of age of modern deposits by the radiocarbon method.’<sup>11</sup>

‘Quite often the radiometric “absolute” time-scale is represented as an external scale in relation to a sequence of layers. It is impossible to agree with this ... The reason is not only in technical imperfections of “absolute” dating, but that they are considered only if they do not conflict to the temporal relations of actual geological bodies.’<sup>12</sup>

Thus, firstly, the techniques of absolute dating are not authentic. Secondly, the determined age of deposits is overestimated and, thirdly, even uniformitarian geologists recognize the selection only of those data that satisfy the *a priori* conclusions and assumptions.

### **Stratigraphy and paleontology**

The theory of evolution is so closely bound with paleontology and stratigraphy that quite often these disciplines support each other without any external criteria. Sometimes it is extremely difficult to understand. Either the theory of evolution is based on the sequence of fossils fixed in the geological record, or geological layers are dated based on an evolutionary biostratigraphic timescale. So it is necessary to define what in science is primary and to what it testifies. So what does modern stratigraphy tell us?

‘Because of the latent gaps, there is a phenomenon of “stratigraphical condensation”, when one layer contains fossils of different stages.’<sup>13</sup>

‘Comparison of local scales ... reveals identical events located in an identical sequence. The events forming ... different sequences are rejected.’<sup>14</sup>

‘Depending on what stratigraphic features we involve in the analysis, we can find out both convertibility, and irreversibility in any sequence of events.’<sup>15</sup>

‘There are known numerous cases when the dating by means of ammonites has such contradiction towards the other groups of fossils that they were neglected completely. ... Similar sins are behind every single large stratigraphic group of organisms.’<sup>16</sup>

Thus, the paleontological data (as with ‘absolute’ dating) are taken into consideration only if they correspond to the theory of biological evolution or principle of superpo-

sition. The data that contradict these criteria are ignored.

Many creation geologists believe there is an order to the fossils in the sedimentary sequence, but in contrast to evolutionists, they attribute such distribution of fossils mainly to ecological factors. While opponents made the accusation that such arguments are unscientific, modern stratigraphy has established that:

‘Moments of occurrence and the disappearances of taxons in the history of the Earth are essentially imperceptible ... In fact, all paleontologically established borders, thus, cannot be considered as “evolutionary”. Their paleontological substantiation is ecological in fact.’<sup>17</sup>

After all told above, the next conclusion looks very logical:

‘It is especially surprising that its union with biology has not prevented stratigraphy from developing ... The union is the reason for the chaos in many stratigraphic conclusions, inasmuch as in transferring to stratigraphy the debatable rules of biology, they were usually transformed into doctrines.’<sup>18</sup>

‘We have no right to found the entire methodology of stratigraphy on such a shaky basis as the theory of evolution.’<sup>19</sup>

It is remarkable that these words belong not to creationists but well-known Russian uniformitarian geologists. Thus, whereas evolution without stratigraphy is unscientific fiction, presently it is possible to conclude that the theory of evolution is founded on an ideological basis to the extreme.

### Geological catastrophism

In continuing to develop scientific ideas, the geologists go further and recognize the necessity to acknowledge (as a minimum) the right of existence of the creation-catastrophic approach in geology. Based on the obvious evidences of extremely fast sedimentation in geological history of the Earth, Sergei Romanovsky comments:

‘Does it mean the revival of a long time forgotten science theory of geological catastrophism? It is impossible to revive it in its previous form, but in any case we should recognize that that the theory has reasonable foundation.’<sup>20</sup>

Professor Meien expresses his point of view even more categorically:

‘However, it is surprising but necessary to recognize that creation-catastrophic doctrine did an absolutely helpful service for stratigraphy. It is difficult to imagine the way of development of stratigraphy if from the very beginning it were based on Darwin’s transformism.’<sup>21</sup>

Thus, conscientious investigation of sedimentary strata leads the researcher to recognition of catastrophic history and a young age of the Earth. Despite the fact that

neither Meien nor Romanovsky reject the uniformitarian doctrine of the old-earth, their particular conclusions contradict their foundational assumptions.

Modern geology recognises (at times, unintentionally), that in the light of recently obtained field and experimental data, the uniformitarian approach to reconstruction of a geological history cannot be considered scientifically based. This approach casts doubt on both technique and results of attempts to define the age of the Earth in billions of years.

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