(1984), Stocklin (1984), Dickins (1985), Helmcke (1983), and many others, point to the virtual impossibility of drifting of continental blocks to an ultimate collision and "suture" with Paleoasia [emphasis added]. '20

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Meyerhoff, A.A., Kamen-Kaye, M., Taner, I. and Chen, C., China — Stratigraphy, Paleography and Tectonics, Kluwer Academic Publishers, Dordrecht and Boston, p. 66, 1991. In similar vein, re the South Korean Highlands, Cheong, C-S., et al., Precambrian Research 102:217, 2000: 'data do not support a previous idea that the Gyconggi and the Yeongnam massifs in South Korea are different continental blocks. This observation contradicts a basic assumption of tectonic models [emphasis added].'

### Flood models

In their peer-reviewed article *Flood* models: the need for an integrated approach, Andy McIntosh, Tom Edmonson and Steven Taylor concluded that 'only as there is greater interaction between the relevant scientific disciplines will some of the unanswered problems of the biblical Flood models be solved'. Readers might suppose from this, and from the concluding acknowledgements at the end of their paper in the same volume,<sup>2</sup> that the undersigned had had meaningful discussions with the authors: also, that we had seen the works before they went into print. Neither supposition would be correct. Had we had a chance to review them, we would have pointed out that our contributions to the CEN Technical Journal<sup>3-7</sup> had been badly misconstrued. We highlight the following in particular:

- 1) We did not, and do not, propose that 'most of the fossils found on the earth were buried by post-Flood catastrophes'. In the cited papers we proposed that rocks dated Permian or later were post-Flood. We did not go into the question of what proportion of the fossiliferous rocks might have resulted from post-Flood catastrophes, and we do not believe that fossilisation implies, let alone requires, catastrophic processes.
- 2) Garton did not attempt to show that there are dinosaur tracks all the way from the Cretaceous to the Tertiary and Quaternary. Although he is said to have 'rightly' shown this, dinosaur tracks, like dinosaur bones,

- do not post-date the Cretaceous.
- 3) Garton did not suggest that dinosaurs were trapped in 'the Carboniferous floating forests'. 10 Nor did he maintain that 'these creatures swarmed the inhospitable land in the final stages of the Flood'. 10 Dinosaur fossils are not known from the Carboniferous.
- 4) The chalk deposits of the Cretaceous are not 'usually taken to be the crushed remains of marine shells'.11 The phrase suggests comminuted fragments of the kinds of shells one can pick up from the beach, whereas the dominant constituent is (intact) platelets of microscopic plankton. Bottomdwelling shellfish, ammonites, etc., occur within this matrix as a distinguishable, generally macroscopic component. The composition of the deposits is largely a matter of fact rather than interpretation, as Tyler in his paper recognised.
- 5) None of us subscribes to the idea (in our opinion untenable) that only 350 years separate the Flood from the end of the dinosaurs or that the dinosaurs perished just before Abraham's time.<sup>8</sup>
- 6) Robinson based his argument that Genesis describes the blotting out of all animals without trace on the meaning of the word machah (i.e. 'blot out'), not mabbul.12 A full reply to the contrary arguments of Fouts and Wise, which McIntosh et al. cite with approval, was offered to the editors of the Tech. J. but not accepted [Ed. note: because the external reviewer expert in Hebrew thought that Robinson's exegesis was flawed]. While we support Robinson's exegesis, it was never a key reason for espousing the Flood model proposed in our papers. For example, Scheven, who first proposed the model, has never expressed an opinion about the interpretation of the word *machah*.
- 7) We would not cite Genesis 10:25 as biblical justification for a major post-Flood (geological) disaster.8 At one time, some of us thought that this verse might have referred

to the comparatively *gradual* disintegration of Pangaea in the Jurassic. Since then, Robinson, <sup>13</sup> citing Fouts, <sup>14</sup> has distanced himself from that view in print; the rest of us are also non-committal.

In principle, we agree that there should be interaction between the relevant scientific disciplines in discussing how Genesis relates to the geological record. We do not, however, believe that McIntosh *et al.* have identified the essential problems of the proposals currently on offer, nor that there is much value in criticism that fails both to understand and to address basic geological data.

None of us is satisfied with the model that we proposed in 1996. In the light of the problems encountered, our thinking has moved on, albeit not in a direction that McIntosh *et al.* would approve of. On the other hand, we remain convinced that Genesis preserves a trustworthy historical record of a global Flood.

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# McIntosh, Taylor and Edmondson reply:

We appreciate the opportunity to address the criticisms of Garner, Garton, Robinson and Tyler, and to further clarify our position. We address in order the points raised in their letter:

The acknowledgements at the end were meant in good faith. We simply mentioned the helpful exchanges that had taken place, particularly with Michael Garton who painstakingly explained their viewpoint. We recognise that strong convictions are held on both sides of this debate concerning the biblical texts about the Flood, and the geological mechanisms during the Flood and afterwards. Our aim, as we stated in the closing paragraph was, and still is, to encourage open and courteous debate, particularly on the biblical approach to the Flood.

### Post-Flood fossilisation

Garner et al. state 'We did not go into the question of what proportion of the fossiliferous rocks might have resulted from post-Flood catastrophes'. However, we note that they argue for a Carboniferous/Permian (using terms from the geological column, which we

do not necessarily accept as a strict chronology) Flood/post-Flood boundary. This implies that a large proportion of the fossil bearing sediments is post-Flood. The Permian rocks and above contain reptiles (in particular dinosaurs), mammals (such as horses, elephants etc.) and birds. Consequently. in their thinking, the air-breathing land animals fossilised in these rocks must be regarded as post-Flood. Thus, though they state that they 'did not go into the question', their articles have strong implications concerning the amount of fossils which indeed are post-Flood. Robinson's article1 is typical of their approach. He interprets the fossils in the higher strata as re-colonisation after the Flood. The number of such fossils is considerable.

Garner et al. state 'we do not believe that fossilisation implies, let alone requires, catastrophic processes'. Our paper summarised the main thrust of their written views and they certainly refer to considerable catastrophic, post-Flood activity.<sup>2</sup> How could large dinosaurs be buried in the Cretaceous without catastrophe? But, even if the air-breathing land creatures in the Triassic, Jurassic and Cretaceous were not buried catastrophically, their model still has great difficulties to answer. Where did all the Mesozoic sediments come from? How could the Rainbow promise be fulfilled if there were whole continents under water after the Flood?3

## Dinosaurs and dinosaur tracks

As we acknowledged in a separate letter, our original article contained a mistake and gave a wrong impression. The wording concerning dinosaur tracks should have read 'vertebrate tracks', since the tracks of dinosaurs are only found in the Mesozoic. Also, we accept that Garton's reference<sup>4</sup> to trapped creatures in the Carboniferous was to amphibians, and not dinosaurs as we incorrectly said in our last communication.

However, the thrust of our argument remains unaltered, that the Cretaceous burial of the dinosaurs