been originally written as in Table 1. In this manuscript, τουκαιναν *(the son* of Cainan) could have been on the end of the third line.

But suppose an early copyist was copying the first line, and his eyes glanced at the end of the third line at τουκαιναν. Then he could have written it on the first line as well, as shown in Table 2.

Now, if a scribe copying the Septuagint (LXX) had an errant manuscript of Luke, he might have inserted the name Cainan into his copy The oldest manuscripts of the LXX do not have the name in Genesis 11.

As Morris points out, this is the likely source of the error. Knowing the meticulous accuracy of Hebrew copyists, it is less likely that the first 'Cainan' was left out in the Hebrew (and Samaritan) Old Testament manuscripts than Gentile copyists adding it to Greek New Testament manuscripts, then to the LXX. It is especially unlikely that the Hebrew Genesis manuscripts are wrong, because they are corroborated by I Chronicles 1:18.

Jonathan D. Sarfati
Brisbane, Queensland,
AUSTRALIA.

REFERENCE

1. Morris, H. M, 1976. **The Genesis Record,** Baker Book House, Grand Rapids, Michigan, pp. 281-282.

HUMANISM AND MODERN MATHEMATICS

Dear Editor,

The paper in this issue by Stephen Ferguson (pp. 107-114) is critical of my paper entitled 'Humanism and modern mathematics' published in 1988.[1]

There are a few helpful points which Ferguson mentions. When researching for my paper, I didn't come across Platonism, nor Predicativism. These appear to have some merit, and I will have to do further reading, and keep an eye out for these strands of mathematical thought. Ferguson has also chosen wording in some instances which improves on the wording I used, to express the ideas I was trying to communicate. I do believe that modern mathematics is 'irreverent in its treatment of the infinite' (p. 108); and I do assume that mathematics is a structure having an independent existence, and every bit as real as the rest of God's creation (p. 112).

On the other side of the coin though, I have many points of disagreement with Ferguson. May I firstly explain my motivation in preparing the paper.

It seemed to me that some people criticise Christianity for the allegedly anti-mathematical nature of the Christian doctrine of the trinity; and mathematicians themselves seem to endorse the difficulty when they define mathematics as *'a system of necessary truths, which* ***must*** *be true in* ***any possible*** *world'.* I believed I had a refutation for this attack, so started research into the subject to prepare a paper. But in the course of my research I came across even more serious problems. For one thing, I found that modern mathematics is divided into a number of factions, who do not agree on what is acceptable and what isn't. Until late last century, mathematics embodied a collection of **truths** on which all rational people could agree; but in the twentieth century, it consists of a number of schools of thought each blindly following its own leader. In my opinion, this is a disaster; mathematics needs to be restored to a unified position. And the biggest problem is that mathematicians no longer believe they can find absolute truths. This major problem is evident from this lengthy passage by Eric Temple Bell, a very highly regarded modern historian of mathematics:-

> *'Up until the early decades of the twentieth century it was quite commonly thought that mathematics has a peculiar kind of truth not shared by other human knowledge. For example, E. Everett (1794-1865) expressed the popular conception of mathematical truth as follows: "In the pure mathematics we contemplate absolute truths, which existed in the Divine Mind before the morning stars sang together, and which will continue to exist there, when the last of their radiant host shall have fallen from heaven*
>
> *One modern instance of the same sort of thing, and we shall pass on to something more profitable. The astronomer and physicist J. H. Jeans (1877-1946) declared in 1930, "the Great Architect of the Universe now appears as a pure mathematician ". ...*
>
> *Against all the senseless rhetoric that has been wafted like incense before the high altar of "Mathematical Truth", let us put the considered verdict of the last of the mathematical giants from the nineteenth century. Mathematics, according to D. Hilbert (1862-1943), is nothing more than a game played according to certain simple rules with meaningless marks on paper . . . This is rather a comedown from the architecture of the universe, but it is the final dry flower of centuries of growth. The* ***meaning*** *of mathematics has nothing to do with the game, as such, and pure mathematicians pass outside their proper domain when they attempt to give the marks meanings. Without assenting to this drastic devaluation of mathematical truth, let us see what brought it about. . . .It is like chess. The "elements" in chess are the thirty-two chessmen. The postulates of chess are the statements of the moves a player can make and of what is to happen if certain other things happen. . . . Only a very original philosopher would dream of asking whether a particular game of chess was "true ". The sensible question would be, "Was the game played according to the rules? ". . .*

At this point it is pertinent to ask, "How do we know that a particular set of postulates, say those of elementary algebra, will never lead to a contradiction?" The answer to this disposes once for all of the hoary myth of "absolute truth" for the conclusions of pure mathematics. ***We do not know, except in comparatively trivial instances, that a particular set of postulates is self-consistent and that it will never lead to contradiction.*** *This may seem strong, but the reader will be in a position to judge for himself if he reads the succeeding chapters, particularly the last of all*

So much for the "absolute truths, which existed in the Divine Mind before the morning stars sang together " — so far as these were mathematical truths — and so much also for the Great Architect of the Universe as a pure mathematician. If He can do no better than some of the postulate systems that pure mathematicians have constructed in the past for their successors to riddle with inconsistencies, the universe is in a sorry state indeed. The less said about the postulate systems for the universe constructed by scientists, philosophers, and theologians, the better.[2]

I was aghast that modern mathematicians have such a different view of mathematics from me. I'm with E. Everett; and I was appalled by the ridicule levelled at theologians and others of like mind, by this and many similar writings. Hence my parallel effort was to try to find what has gone wrong with modern mathematics — why has it gone off the rails, and to try to determine how it can be brought back to the **correct** position it had until the late 19th century.

Ferguson's paper is also unhelpful. Obviously he doesn't approve of my attempt at a solution to this problem of the **devaluation** of mathematics, but he offers no suggestions of his own. He seems not to see it as a problem. He has nothing whatsoever to contribute to how or why the factions arose, after some 3,000 years of successful united mathematical work.

He has made a number of errors of fact, accusing me of things I didn't write :-

(1) I divided Platonism into Logicist and Set theoretic approaches (p. 108) — when I hadn't heard of Platonism. As far as I can see these are not related.

(2) I rejected Platonism for its treatment of infinity (p. 108) — this is again incorrect.

(3) I wonder *'whether perhaps mathematics might not be universally true, but merely true for mankind'* (p. 113) — is wrong and damaging. But if Ferguson had ended this sentence with 'merely true in this creation', I would have no objection.

Some parts of Ferguson's paper are worrying, as they use technical words of dubious or ill-defined meaning:-

(1) What are transfinite sets? We understand infinite sets as being non-finite, but has anybody explained what Cantor means by transfinite?

(2) What does he mean by *foundations without foundationalism*'? (p. 110). Can there be any such thing? Does it have an analogy in *'the living dead'?*

With respect to the difficulty with the trinity, Ferguson states that *'it* ***does*** *contradict our mathematical practices'.* Thus he has no answer for the sceptic's attack. But Formalists and quasi-Formalists wouldn't have any sort of answer because their mathematics does not have any meaning anyway, as demonstrated in the quote from Bell above.

In his conclusion, Ferguson has got it exactly wrong. He writes:

'Malcolm has argued for a rejection of the traditional positions in the philosophy of mathematics'.

I believe I was upholding the traditional position, and only questioning the modern deviations from the traditional position which started towards the end of the 19th century. And in his introductory section he says: *'I am inclined to agree with Malcolm'* that mathematics should cohere with Biblical revelation. I would like to know in what sense he believes his present paper is advocating any Biblical principles as related to mathematics.

Finally, from reading Ferguson's paper, I am not convinced that Formalism has anything to recommend it, nor has my position changed as to the positive aspects of Intuitionism. Further, I gave numerous quotations to back up my position, which were all carefully referenced. Ferguson gives no such references.

I am working on a more rigorous paper addressing the philosophy of mathematics, and any further defence and clarification of my position on the above matters will have to wait until the research for that is completed.

David Malcolm,
Maryland, New South Wales,
AUSTRALIA.

REFERENCES

1. Malcolm D., 1988. Humanism and modern mathematics. EN **Tech. J.,** 3:49-58.
2. Bell, E. T., 1958. **Mathematics: Queen and Servant of Science,** G. Bell and Sons Ltd, London, pp. 20-26.

THE POST-FLOOD BOUNDARY

Dear Editor,

The discussion in **CEN Tech. J., 10(1),** 1996 concerning the global stratigraphic record is very helpful. However, my present conclusion is this: The definite succession of the fossils, the chalk formations, the coal seams, the fossil tracks, the dinosaur nests, the continental flood basalts, etc. are best explained by Robinson *et al.* As an example we recognise that Froede's model is not able to explain why we do not find any fossils of land