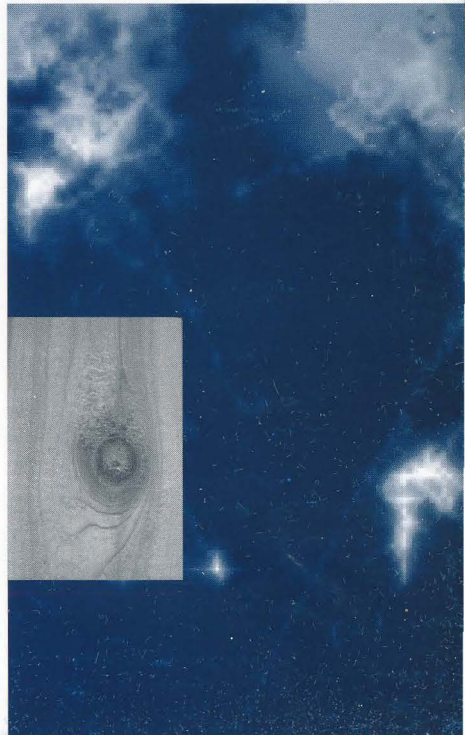
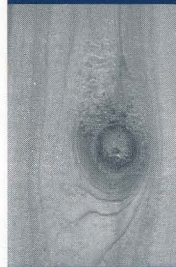




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# *Faith and Thought*

B U L L E T I N



## **FAITH and THOUGHT**

Faith and Thought is the operating name of  
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## Editorial

We are very grateful to Sir John Houghton for accepting the invitation to be our President. His curriculum vitae is given below, on page 3.

This issue reports on the Annual General Meeting in May this year, and the lecture given there by our guest speaker, Dr. Caroline Berry. The lecture complements the award-winning essay published in the last issue.

Our Chairman, Terence Mitchell, has written concerning the ancient Egyptian texts, and the Editor has attempted to summarise a meeting held last year under the aegis of the Science and Religion Forum. It is difficult adequately to convey the atmosphere of a meeting, but this is offered in the hope that it might be of interest.

It would be good to have more contributions from members and others. We rely on your help, as without this we could not continue to exist.

The next part of the Cumulative Index is also presented, taking us to 1978. We are catching up!

# Victoria Institute

## Annual General Meeting - 2002

### 1. Chairman's Welcome

- a) It is a great pleasure for us to have with us Dr. Caroline Berry who is an expert in genetic matters, and who will be delivering our annual lecture.

We are also glad to welcome Jacqueline Engel, the winner of our Millennium Essay Competition. Her winning Essay "Christian Implications of the Human Genome Project" is published in the current issue of the *Faith and Thought Bulletin* (No. 31 for April 2002).

Before she delivers her lecture, Dr. Berry will be making the formal presentation of the prize, on behalf of the Victoria Institute.

- b) I will repeat briefly what I have said for the past few years - we have 230 subscribers, but if we could increase the numbers, our finances would improve.
- c) As I mentioned in my annual letter, the Council, though aware of the honorable record of our name - Victoria Institute - not least for its use in the former title of our journal, the *Journal of Transactions of the Victoria Institute*, the JTVI, and abbreviation still to be found in publications in my field of the ancient Near East, are aware that in the modern world, it would bring to the mind of the uninitiated, steam engines, the Great Exhibition, Michael Faraday etc., all matters of great interest, but not what we are about. The Council is therefore considering changing the head name of the Institute to something which will be immediately indicative of what we are concerned with. This is a major step, and we are taking great care in our discussions. Suggestions from Members would be welcome.

### 2. Apologies

None were received.

### 3. Minutes of the Previous A.G.M.

Printed in *Faith and Thought Bulletin* 28 (October 2001), pp. 2-3. Are there any corrections or questions arising? No comments were received.

### 4. Election of Officers and Council

- a) **President:** Sir John Houghton, C.B.E., F.R.S., nominated by the Council.
- Sir John began his career as a Research Fellow at the Royal Aircraft Establishment, and then took up a Lectureship, which became a Readership and in 1976 a Professorship in Atmospheric Physics at Oxford. Between 1979 and 1983 he was Director of the Appleton Science and Engineering

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Council, and then from 1983 until his retirement in 1991 he was Director General (the title changing to Chief Executive) of the Meteorological Office. He was Knighted in 1991. Since his retirement he has been an Honorary Scientist attached to the Appleton Laboratory.

He has served on many important committees, among them the Royal Commission on Environmental Pollution. He was Vice-President of the World Meteorological Organization from 1987-1991, and in 1995 he was awarded the Gold Medal of the Royal Astronomical Society.

Among his publications are *The Physics of Atmospheres* (1977, new ed. 1986), *Global Climate* (new ed. 1984), *Global Warming: The Complete Briefing* (1994), as well as *Does God Play Dice?* (1988) and *The Search for God: Can Science Help?* (1995).

The Council has nominated him for election as President of the Victoria Institute, and his nomination has the support of the Vice-Presidents, whose re-election is the next item on the Agenda.

May I put his election as President to the Members, and ask for a show of hands.

b) **Vice-Presidents:**

Professor D.J. Wiseman  
Professor M.A. Jeeves  
Professor Sir Robert Boyd

May I have a show of hands by Members in favour of their re-election.

c) **Council**

The following members of the Council, who formally retire, have nominated for re-election:

Rev. M.J. Collis  
Dr. J.P. Kane  
Professor C.J. Humphreys

No other nominations have been received. May I have a show of hands by Members in favour of their re-election?

As mentioned on the Agenda paper, Professor D.C. Lainé has had to resign from the Council, and we are very grateful for his contribution.

#### 5. **Presentation of the Annual Accounts**

We are again grateful to Brian Weller for continuing to act as Treasurer, who I call upon to present the Annual Accounts. (These are available on application to the Treasurer).

Are there any comments or questions? None were recorded.

## 6. Millennium Essay Competition Prize Award

The Millennium Essay Prize Fund is the result of the amalgamation of three separate Prize Funds which have been established at various times, for the Institute to award for essays in fields relating to science and the Christian faith. These are: the Gunning Fund, the Langhorn Orchard Trust, and the Schofield Memorial Trust. In the past, the interest accruing from these funds was used for yearly essay prizes rotating between the three. With inflation, however, the yield available, even after three years in each case, was not sufficient to attract potential essayists. The Council therefore decided to amalgamate the three Funds into what we have called the *Millennium Essay Competition Prize Award*.

I will now ask Miss Jacqueline Engel to come forward and for Dr. Caroline Berry to make the presentation of the Millennium Essay Prize.

## 7. Lecture

I will now hand over to Dr. Bob Allaway to take the Chair for the lecture.

Dr. Allaway then welcomed and introduced the speaker, Dr. Caroline Berry, who delivered her lecture: *New Developments in Genetics - Health or Hazard?*

# New Developments in Genetics - Health or Hazard?

**Caroline Berry**

*The following is of necessity a summary of the speaker's main points, from notes taken at the time and material kindly supplied later (Ed.).*

After outlining the present knowledge of the human genome, and how its structure has been explored, Dr. Berry went on to the uses and possible abuses to which this knowledge could be put. As yet, 'gene therapy' is a long way down the line, but many techniques are now employed using gene manipulation. These include the production of insulin, of human growth hormone, factor VIII for haemophilics, and vaccines for the prevention of infectious diseases. These come under the heading of (justifiable?) manipulation. 'Enhancement' using gene products may be of concern when not really necessary e.g. the use of genetically 'engineered' growth hormone to make short children taller is an example of 'Enhancement'.

At present a genetic test is available for the identification of a large number of genetic diseases such as cystic fibrosis and gene carriers can also be identified.

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Another use of genetic testing is to identify those *at risk* from developing the disease itself, and notable here are some bowel cancer and breast cancer sufferers for whom preventative action is possible. On the other hand, those with e.g. Huntingdon's Chorea are still hoping for alleviation from their disease. This raises the question as to whether it is always helpful to know one's genetic make-up. There are concerns such as anxiety, overmedication, the effect on spouse and the wider family, and perhaps a low self-esteem in the patient. A future concern will certainly be the matter of employment and of insurance.

Looking to the future, it is apparent that there will be identification of the genes which pre-dispose to disease in multi-factorial disorders, and genes which pre-dispose to behavioural traits will doubtless be identified. Pre-implantation diagnosis may become more widely established, with possibilities of avoiding genotypes which may be 'at risk'. There may well be requests for genotypes in which traits are 'enhanced' - desirable features, etc. How are we going to handle this? Who will decide, and on what grounds? These are all questions awaiting answers. Thus the future concern may well be of the identification of a genetic 'underclass', or a feeling of fatalism ('it's not my fault I'm like this'), and the designing of offspring to suit ourselves. With memories of the last century and the disastrous use of eugenics, we must be ever-aware of a threat by society to 'cleanse' the gene pool by whatever unscrupulous means.

How do we, as Christians, react to all this? We can identify perhaps four basic principles to guide us in our thinking. The first of these is truth, often the first 'casualty'. Francis Collins, director of the National Genome Research Institute of the USA said after the first gene sequence was outlined: "The human genome will not help us to understand the spiritual side of humankind, or to know who God is, or what love is." And also, a 'horror-story': "The well-heeled couple who decide they want to use genetics to have a child who is a gifted musician may end up with a sullen adolescent who smokes marijuana and doesn't talk to them."

The second principle is justice. We must protect the genetically 'weak' and not exploit them. We must resist commercial pressures - who owns the genome? Furthermore, rare populations must not be exploited for our benefit. There are echoes here of loss of biodiversity.

The third principle is that of the value of the individual. We are more than the sum of our genes, made in God's image with free-will and the great gift of choice. "Bought with a price, do not be the servants of men" (1 Cor. 7 23). The fourth principle is that of the value of community, which will be referred to later.

Dr. Berry went on to outline the knowledge we presently have of the embryo and its development. Some days after fertilisation there will be no differentiation within the dividing cells, each one of which has the potential to become a complete

organism, and twinning is possible and contraception may act during this period. Between 6 and 10 days there is evidence of the 'primitive streak', the laying down of the very early nervous system. Then implantation within the uterine wall occurs, and the foetus is established. It is interesting that there are Biblical references to this, e.g. in Is. 49 5; Jer. 1 4,5; Gal. 1 15 ; and Luke 1 41-45. It is even suggested that God knows us before conception (Eph. 1 4). Surely the most wonderful exposition of God's all-knowingness is in Psalm 139. Genesis chapters 1 and 2 repeatedly speak of God's creative acts, and of our relationship with Him. We are made for such relationship from, or even before, birth. Or does this beg the question? Does the relationship only start at implantation, as this is when the embryo first has a relationship with its mother?

Therapeutic cloning and pre-implantation diagnosis are two techniques which involve manipulation and discarding of the pre-implantation embryo. If we believe that fertilisation is the crucial point then these may violate our divine relationship.

On the other hand, if the relationship established at implantation with the mother is the crucial one, then pre-implantation testing can be used to avoid the birth of a child with a known genetic disorder, obviating the use of abortion for this purpose. Embryonic stem cells obtained from pre-implantation embryos have the potential to be useful in the treatment of Parkinson's and childhood leukemia. Is this 'right'. or does it destroy a person's individuality? We are making a child 'for a purpose', and while we might, just, agree to this for therapeutic purposes, what about the production of an identical person by cloning e.g. to produce another talented individual? Is this not over-stepping the boundaries, and attempting to make a child for our own purposes?

We all have expectations: to have a child of my own, a healthy child (perhaps this is the tyranny of the normal), to give a child a good start - or is it rather a 'head start'? As Christians, we surely have to accept uncertainties, and to love the person when he/she arrives, with whatever advantages or disadvantages.

In conclusion, Dr. Berry referred to the value to the community - the fourth principle, and outlined the thoughts of Robert Song in this matter. Song distinguishes two types of community. In the first we have more individuality, and freedom and choice are paramount. There is equality of opportunity with appropriate rewards for effort and success, etc. There is freedom also to give to those who are needy and less fortunate. This represents what we might call 'our society' in which we live. On the other hand there could be a community in which there is commitment to the common good: talents are shared and used to enrich the whole. There is a focus on the ultimate equality of all members, and each is responsible for all, especially the vulnerable and marginalised. Is this not the Christian community? Perhaps we should keep this ideal in mind in all our



future decisions about ethical issues, issues which are going to loom large in the very near future.

### References

Song, R. *Human Genetics: fabricating the future*. D.L.T. 2002. p.b. £8.95

Moore, P. *Babel's Shadow*. Lion 2000. p.b. £8.99

## Ancient Aramaic Texts from Egypt<sup>1</sup>

Terence C. Mitchell

The Old Testament has been handed down mostly in Hebrew, but there are two significant passages in the related but different semitic language, Aramaic. These are Ezra 4:8 - 16:18; 7:12-26 and Daniel 2:4b - 7:28, both of them in books dealing with the period of the Exile, the 6th century B.C., in the latter part of which the ancient Near East was ruled by the Achaemenian Persians (539-333 B.C.). In their time Aramaic was widely used as the language of diplomacy. When the Persian king in Susa or Persepolis wanted to communicate, for example, with the governor of Sardis in western Turkey, he would probably dictate his message in Persian, the scribe would write it down in Aramaic, and at Sardis his opposite number would translate the message orally from the written Aramaic, reading it out in Lydian or Greek, or whatever suited the local governor. This meant that Aramaic was known and used by the educated throughout the empire, in various regional dialects.

In this context the discovery in the late nineteenth and the first half of the twentieth century of a considerable number of Aramaic documents of the 6th-5th centuries B.C. mainly from a Jewish colony at Elephantine near Aswan in Egypt,<sup>2</sup> has been of great value for the understanding of these Biblical passages, though there is still work to be done on their dialectical classification.

Elephantine island is in the middle of the Nile just down stream from the modern Aswan dam, and the town of Aswan is on the east bank of the river a little to the north of the island. The island had the ancient Egyptian name 'bw, "elephant, ivory", signifying here something like "elephant place", probably because it was there that they encountered elephants, and traded for ivory. This name was transcribed by the Aramaic scribes as yb (the script not showing vowels), probably representing yeb, and this was translated by the Greeks as *elephantine*. At the same time the settlement on the east bank was referred to by the Egyptians as *swnw*, "trading (post)" or something of the kind, which was transcribed in Aramaic

as *swn*, and by the Greeks as *Suene*, a name which has come over into Arabic as Aswan. *Suene* is often quoted as "Syene", because the Greek vowel *u* (upsilon) came to be pronounced like "i" in the Graeco-Roman period, and this transference is regularly found in Greek words borrowed into English, as for example "apocalypse", "apocrypha", "crypt", "hypocrite", "psychology" etc., in all of which the "y" represents "u" in the Greek forerunner.

The Greek form *Suene*, suggests that Aramaic *swn* would have been pronounced something like "Sewen", and this illuminates some references in the Old Testament. In Ezekiel's Prophecy of the 5th century B.C. against Egypt (29:10) and in his Lament for Egypt (30:6), there is the phrase "From Migdol to Sewen", referring to the northern and southern limits of Egypt. In these verses "to Sewen" is Hebrew *seweneh*, to be analysed as *sewen-eh* (or more properly *sewen-ah*), the Hebrew ending -ah, "to", being a formation recognised by Hebraists only about fifty years ago,<sup>3</sup> and perhaps sometimes misunderstood by the Rabbinic scribes who supplied vowels in the early Christian era to the text written up to that time with consonants only.<sup>4</sup> This interpretation of "Sewen" as "Syene" is strongly supported by the phrase that follows in Ezekiel 29:10, "and to the border of Kush", where Kush was the area south of Aswan, modern Nubia. *Sewen* in these passages is now generally acknowledged to refer to *Suene/Syene*, and is given in the NIV as "Aswan". Interestingly, the Authorised Version (1611) already took it to be "Syene", while the Revised Version (1885) backed away from this to a more non-committal "Sevneh", perhaps because the Hebraists at the time did not recognise the ending -eh (-ah), "to". In Hebrew *migdol* means "fort" or "tower" (literally "big place") and in these verses the AV and RV took it as the noun and translated the phrase "from the tower of Syene/sevneh". Both the Egyptian inscriptions,<sup>5</sup> and the Old Testament (Exodus 14:2), however, mention a place called Migdol in the east Delta, so it makes sense to translate the form here as the place name "Migdol" rather than the noun "fort", a conclusion accepted by the NIV.

The evidence from Elephantine, combined with that of the Dead Sea Scrolls from Qumran, has also supplied the key to the identification of a long standing source of debate. In Isaiah, in a passage prophesying the restoration of Israel at the coming of the Messiah (49:8-26), we are told in the words of the AV and RV (verse 12), "they will come from afar - some from the north, some from the west, and some from the region of Sinim". It was proposed already in the 16th century that Sinim be identified as "China", and on the strength of support for this interpretation by the great German Hebraist Wilhelm Gesenius (1786-1842), whose Hebrew grammar and dictionary are still used, in much revised forms, by students even today, and whose authority few would question, this interpretation was widely accepted for many years. Gesenius's view was not particularly

unreasonable in his day, but it is now known that there is no evidence for Jewish settlement in China until about the 10th century A.D., so, assuming that the reference is to the first and not the second coming of the Messiah, Isaiah writing over 1500 years earlier is not likely to have referred to China. The traditional Rabbinic (Masoretic) Hebrew text has the consonants *synym* here (indicating the pronunciation "sinim"), but the great Isaiah manuscript found in 1947 at Qumran gives this form with the consonants *swnyym*,<sup>6</sup> making it highly probable that this is another reference to *swn*, Syene. The form can be analysed as *swn-yym*, the *-yym* ending, probably pronounced *-iyîm*, being the equivalent of English "-ites" or "-ians",<sup>7</sup> referring therefore to "Syenites", or "Syenians", that is "inhabitants of Syene". This interpretation depends, of course, on the correctness of the Dead Sea Scrolls text, but it makes good sense, and it was already recognised by the Revised Standard Version published in the U.S.A. in 1952 when the translators were able to take account of the recently discovered Dead Sea Scrolls. This translation has been followed in most other modern versions, the NIV giving "...some from the region of Aswan", with the explanation "Dead Sea Scrolls: Masoretic Text *Sinim*" in a footnote, indicating that the Dead Sea Scrolls version is adopted instead of the Masoretic text. Thus the idea long held vaguely by some that China is mentioned in the Bible may be removed from the agenda.

It is worth mentioning that the name Syene is known in the history of science in the context of the calculation of the circumference of the earth. The Greek scholar Eratosthenes (c.276-c.194B.C.) made use of the observation that there the sun was directly overhead at noon on midsummer day. His procedure (which would give the circumference through the poles) is described by the later writer Cleomedes (probably c. 150-200 A.D.).<sup>8</sup> According to him Eratosthenes assumed that Syene was due south of Alexandria (actually almost 60 miles out), and there he observed that the shadow of the sun, again at noon on midsummer day, showed an angle of inclination from the vertical of "one-fiftieth of its proper circle [i.e. 7.2°]. Therefore the distance from Syene to Alexandria must necessarily be one-fiftieth part of the great circle [circumference] of the earth. And the said distance is 5,000 stades; therefore the complete great circle measures 250,000 stades".<sup>9</sup> The value of Eratosthenes's stadion is not quite certain: one suggestion would put it at 148.8 metres, giving a circumference of about 23,300 miles; while an alternative, based on different assumptions, would make it 157.5 metres, giving a circumference of about 24,662 miles.<sup>10</sup> Error enters into the whole calculation because the measurement available to him of the distance between Alexandria and Syene was inaccurate, and this was compounded by the fact that the two cities were not on the same longitude. Nevertheless both of these figures are reasonably close to the present estimate of 24,860 miles for the circumference through the poles.<sup>11</sup>

## References

- <sup>1</sup> This is a revised version of a note which appeared first in the Westminster Chapel Magazine and is published here by permission of the Editors.
- <sup>2</sup> A good general account is given in B. Porten, *Archives from Elephantine. The Life of an Ancient Jewish Military Colony* (Berkeley and Los Angeles, 1968).
- <sup>3</sup> E.A. Speiser, "The Terminative-Adverbial in Canaanite-Ugaritic and Akkadian", *Eretz-Israel* 3 (1953), pp. 63-66, reprinted in J.J. Finkelstein and M. Greenberg (eds.), *Oriental and Biblical Studies. Collected Writings of E.A. Speiser* (Philadelphia, 1967), pp. 494-505.
- <sup>4</sup> Speiser, "Terminative-Adverbial", pp. 496-497, points out, however, that occurrences of this form in the Hebrew text of the Old Testament are characterised by the absence of an accent in the Masoretic marks, suggesting that the Rabbinic scholars were aware that it had a special function.
- <sup>5</sup> See E. Oren, "Migdol: A New Fortress on the Edge of the Eastern Nile Delta", *Bulletin of the American Schools of Oriental Research* 256 (1984), pp. 7-44, specifically, pp. 31-34.
- <sup>6</sup> M. Burrows, *The Dead Sea Scrolls of St. Mark's Monastery*, I, *The Isaiah Manuscript and the Habakkuk Commentary* (New Haven, 1950), pl.XLI.
- <sup>7</sup> See E. Kautzsch (ed. and enlarged), *Gesenius' Hebrew Grammar* (2nd English ed. by A.E. Cowley; Oxford, 1910), p. 240 §86h, compare e.g. 'Ibriyîm, "Hebrews".
- <sup>8</sup> Strictly Kleomedes, on whom see W.D. Ross in N.G.L. Hammond and H.H. Scullard, *The Oxford Classical Dictionary* (2nd ed.; Oxford, 1970), p. 250; M.R. Cohen and I.E. Drabkin, *A Source Book in Greek Science* (Cambridge, Mass. 1948), p. 284 n.1; and briefly J.L.E. Dreyer, *History of the Planetary Systems from Thales to Kepler* (Cambridge, 1906; rev. ed by W.H. Stahl, New York, 1953), p. 150.
- <sup>9</sup> From a translation (by T.L. Heath) of Cleomedes's account reproduced in Cohen and Drabkin, *Source Book*, pp. 151-153.
- <sup>10</sup> 148.8m is proposed by Cohen and Drabkin, *Source Book*, p. 150 n. 2; and 157.5m by Dreyer, *History of the Planetary Systems*, pp. 175-176. Dreyer gives an account of Eratosthenes's procedures on pp. 174-175. For other ancient attempts to determine the circumference, including that of Eratosthenes, see J.K. Wright, *The Geographical Law of the Time of the Crusades* (New York, 1925; Dover reprint, New York, 1965), pp. 15-16.
- <sup>11</sup> A concise account by a professional astronomer of Eratosthenes's procedure is given by W.M. Smart in *The Riddle of the Universe* (London, 1968), pp. 11-12.

## The Public Understanding of Science and Religion

A conference under this title was held in March 2001 at Imperial College, London under the aegis of the Science and Religion Forum. Unfortunately the first speaker was unable to be present, but the following is a summary of his proposed talk:

### *Caricatures, myths and stereotypes in the public understanding of science and religion*

**John Durant**

Chief Executive, At-Bristol;

Professor of Public Understanding of Science, Imperial College, London.

A lot of popular science writing deals explicitly with the relationship between science and religion; even more deals implicitly with this issue, through the use of religious metaphors and images. Potentially, therefore, the genre of popular science literature has much to offer the public on the subject of science and religion. The paper will suggest, however, that relatively little popular science writing speaks effectively to current concerns about the larger moral and metaphysical implications of science - concern expressed, for example, in some of the recent speeches of Prince Charles on the spiritual bankruptcy of the scientific world-view.

The second speaker was **David Wilkinson**, Fellow in Christian Apologetics at St. John's College, Durham:

### *The absence of God, or a surer path to God? The popular questions of cosmology and theology.*

Steven Hawking's book *A Brief History of Time* has been a best-seller for some time, though maybe not always read completely, nor understood fully. Paul Davies' *God and the New Physics* has suggested that science gives us a surer path to God. People are fascinated by 'origins', and this is shown from school-children to the elderly, witness programmes on the 'Big Bang' on TV. Dr. Wilkinson suggested several issues arising from these considerations. Firstly, as regards the time-scale, in the very earliest moments of creation ( $10^{-43}$  sec.) we probably had quarks, and later hydrogen and helium. Within, maybe, a million years galaxies were forming. But in the very earliest times, physical laws as we know them would break down, and quantum and relativity theories do not agree with each other. Is God here? We naturally want to apply common sense to everything which is not always possible. Christians have tended to exploit this tendency.

We talk of the 'Big Bang' as a type of explosion, and people find that there is a limit to science - can we indeed apply cause and effect in the Universe? A so-called 'God-of-the-gaps' (filling holes in our knowledge) leads to deism rather than to theism. Hawking attacks the God-of-the-gaps idea, and would favour theism over deism. How do we communicate when our common sense cannot guide us?

Secondly, the matter of purpose in creation. Here science and religion may well be complementary viewpoints, but the 'conflict metaphor' has always been popular. 'Creationism' seems to be growing in the UK, especially among students, and 'conflict' simplifies things, e.g. over the interpretation of the Bible. The rate of change of knowledge is increasing. We just cannot 'keep up' in any broad sense. For example, among lower sixth form pupils, 29% supported the conflict metaphor. In 1995, a study by Kay found that of 4000 students, 21% of boys and 11% of girls claimed that science had disproved religion. It seemed that the boys rejected religion for scientific reasons, though this was not so clear in the case of girls. It is important for everyone to understand the scientific method and for the Church to affirm science positively.

Thirdly - the matter of design. We have here a balance of factors. Intelligibility is balanced against awe at the massive state of creation. Is the argument from design a positive or a negative help to us? Martin Rees in his book *Just Three Numbers* favours a multiplicity of universes rather than a creator God. Others have rejected God, but seem to 'bend over backwards' to explain our origin, e.g. aliens from a black hole in a different universe.

Fourthly, over the matter of God's nature, 60% of the sixth-formers claimed that the Christian faith is not based on evidence; this was so even among Christian students. We need to communicate afresh with each generation. The same study (and fifthly) supported the idea of the existence of aliens. Science Fiction and *The X-Files* for example foster this idea. Although there are some supporting suggestions from cosmology, the truth is much more complex. Paul Davies, already referred to, asks, "Are we alone?" Loneliness, fear, identity and purpose may all lead people to hope in the existence of aliens.

Finally, what will happen in the 'end'? Shall we be extinguished by a comet's collision, by heat death, by a big 'freeze'? Could there then be a new creation? Such questions are left hanging in the air - unanswered.

**Professor Bowler** from the Department of the History of Science at Queen's University, Belfast entitled his address *Evolution and Religion - changing perspectives from Darwin's time to the present*. There has always been discussion among Christians as to whether to reject Darwinism or to embrace it, or compromise in some way. Some see Darwinism as a 'universal solvent',

others find the conflict metaphor attractive. Liberal theologians reject the conflict idea, but we must avoid the alternative myth that 'we are all liberals now' which is untrue. Some theologians in the early 20th century tried to compromise and see evolution as God's way of working. But Darwinism has no room for design in Creation, and short term adaptation is not an argument for it.

There has been a tendency for Christians to look for alternatives to natural selection. These were plausible at one time, e.g. in the writings of Raven and de Chardin. Lamarckism was one such, but discredited by science. It was attractive to think that gradual development of characteristics such as the giraffe's long neck could be inherited, but the re-discovery of Mendel's work put an end to this. Asa Gray was very critical of the desire to find purpose in evolution. There was an early 20th century movement of which Bishop Barnes was a proponent which decried 'original sin' and suggested that we are perfectable. This was supported also by eugenics. Although Lamarckism was discredited by science, people tended to assume that Darwinism was dead also. They were *told* so by scientists such as J.R. Thomson and Oliver Lodge. Gradually Darwinism gained credibility even though in the 1950's and 1960's the pendulum did seem to swing the other way e.g. de Chardin's 'mystical' evolution. Today, Darwinism is as powerful as ever. Can we as Christians accept this? People such as R.A. Fisher have claimed so. David Lack in 1957 stated that the soul is not a biological entity, but a unique event.

Neo-Darwinism is now in the ascendant thanks to Dawkins and others. We may see 'progress', but this may not be so, according to the Darwinians. We must try and communicate with the public, for instance via websites, and we need good guides. Is there room for the sacred in both religion and science?

A question arose from this talk as to 'risk' in the universe. What control have we? In many ethical discussions we seem to fall into the 'risk-benefit management' area. Not necessarily helpful.

N.B. Professor Bowler's book *Reconciling Science and Religion* was due to be published by University of Chicago Press late in 2001.

The Rev'd John Polkinghorne emphasised that our God is a suffering God, and involved in our evolution. The universe is unpredictable and open-ended - hence free will. Christians are trying to work out a new reconciliation between Darwinism and teleology. We must focus on opportunities rather than on dangers, to help believers.

**Andrew Barr**, lately Head of Education and Religious Broadcasting, BBC Scotland is currently Chair of GRF Christian Radio. He was responsible for the TV series *Son of God*, and dealt here with the public perception of science and faith through the media. It is difficult to put over important issues, such as

disease and its causes, via the media. Some presentations may do harm to true science, claiming scientific evidence where it is lacking. Too glib a presentation may indeed attract a large audience such as teenagers, cab drivers etc., but we need to interest sceptics also. Are science and religion working together here, or are we looking through a 'dodgy mirror'? Some people obviously look for relaxation and distraction rather than a balanced picture. Programme producers have a responsibility, but it is a difficult area. *Son of God* took two years to produce, with much hardship within the production team. We must engage with the story before we can tell it, and before we can give the 'experts' their opening. Remember - people understand more than we think they do!

In the question-and-answer session, the different speakers formed a panel. Professor Russell Stannard led the discussion, and claimed that in media presentations often 'God' may just mean the laws of nature. Hawking and Einstein share this view, but this deals only with origins, and not purpose. Often we find that scientists will bring theology into the debate with no theological training, whereas theologians are more guarded about science. Are scientists arrogant? Bowler said that there is a scientific 'priesthood' which claims a moral background. Scientists often feel they have a right to speak.

Professor J.H. Brooke said that the general view seemed to be that because we cannot see God in science, there is no need to search elsewhere. We can make science more relevant if we accept that it has theological overtones. But it seems that the authority of science is starting to decrease. Young people may be put off science by lack of remuneration, 'dirty' side-effects, and a demanding discipline. Rev'd A.R. Peacocke said that we must make science 'fun', and Wilkinson stated that we need more science-religion dialogue. Perhaps we need to be encouraged by some 'authority' (Barr).

One interesting question was - if evolution was re-run, would we have the same results? Answers differed about this question, and the relative importance of order and design. Brooke claimed that biologists were troubled by 'order', whereas chemists and physicists were not.

With regard to the production of religious programmes, the method of production is vital. Angela Tilby (*Soul*) had said that whereas science is accepted, religion has to prove itself. There is not much serious thinking on religion today, and producers can be arrogant and/or prejudiced. Scientists may be brought in to administer the 'coup de grace', which is unfair. We must strive for new modes of presentation, and sometimes the producers' religious knowledge has not advanced beyond their Sunday School days.

**A.B. Robins.**



## Correspondence

Dear Sir,

May I raise a concern with you? When I first discovered the Victoria Institute in 1958, I remember the serious debate then conducted on the evolution question, and the help it was to find that some learned scientists had a straight-forward faith in creation. In particular, the writings of R.E.D. Clark were superb in their day, and a great help to me.

Now, however, *Science and Christian Belief* in particular seems to have taken a crusading position vis-à-vis theistic evolution.

Personally I have been convinced since student days that Darwinian or other form of evolution has no great mass of evidence in its favour. Recently I have been greatly encouraged by the writings of people like Behe, John Rendle Short, Philip Johnson and Michael Denton. Also, I have been convinced that *Answers in Genesis* are right to say that evangelism has to begin with the creation issue. People are inoculated in school against the Bible and Gospel by evolutionist science teachers. I encounter young people and adult converts who all have to struggle with this, and share it with me.

The progress in student evangelism since 1945 was under the umbrella of IVF and UCCF, who confessed a divinely-given and clearly-understood Bible. We all took it for granted that Genesis 1 was straightforwardly true. However the growing number of converted, genuinely convinced Christian scientists has led to their influence changing this emphasis to the present policy.

I am grieved at this - deeply as you can imagine. I am disturbed that theistic evolutionists seem unable to give serious credit to anti-evolutionary views. It seems to me that the latter are censored by the magazines when the learning of the men concerned claims for them a serious hearing. Also it seems that the stance of *Science and Christian Belief* contradicts the basis of faith of the UCCF. The magazine ought to express a creationist perspective fundamentally, while allowing articles of evolutionary perspective to be included.

I would be grateful if you would convey these views to the magazine(s) concerned, and would be happy to receive comments in due course.

Yours sincerely,

**J.E. Hollins** (Rev'd)

Sir,

PONLAF is an amateur astronomy forum meets at the University of North London on the last Friday of every month. (The P is short for Polytechnic, which is what UNL used to be.) These lectures often deal with cosmological speculation, as well as straight astronomy. A number of Christians attend and find it fascinating how often discussion tips over from physics into metaphysics. The last such meeting, on 28th June, was a discussion on the implications of Quantum Mechanics for the nature of reality.

Mark Innes argued that the implications of Quantum Mechanics mean that (as Neils Bohr said in 1936) 'we require a radical revision of our concept of reality'. He claimed that we are led to the position of Bishop George Berkeley (1685-1753), that 'to be is to be perceived'.

Defending a 'common sense' of reality against him, Ian Buxton claimed, among other criticisms, that he was inconsistent to espouse the views of a Christian philosopher while maintaining atheism. As was pointed out from the floor, Berkeley was able to maintain the existence of objective reality, that things still exist even when we are not perceiving them, because God perceives them. Without God, his view would seem to lead to solipsism. The need for more open discussion time led to an extra, informal, meeting being convened during the summer recess.

Any Victoria Institute members living in the region of Holloway Road, London may like to drop in on future PONLAF meetings. Telephone (01883) 343179 for details.

Yours in Christ,

**R.H. Allaway** (Revd Dr).

## Cumulative Index Part 4

The first part of this index was published in Bulletin 27 (April 2000) and covers volumes 1 to 43 (1866 to 19121); Part 2 (Bulletin 28) volumes 44 to 70 (1912 to 1938); Part 3 (Bulletin 29 - 31) volumes 71 to 100 (1939 to 1973). Part 4, which now follows, covers volumes 101 to 105 (1974 - 1978)

### Abbreviations

**Asterisk (\*)** - the first page of an article; **c** - correspondence; **d** - contribution to a discussion; **f** - and pages following; **r** - review; **rw** - writer of a review.

To save space titles of papers and headings are indexed under key words only and not given in full. Also '10' is omitted in volume numbers: e.g. **3-107** indicated volume 103 page 107.

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