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Spring 2002

Great are the works of the LORD: they are studied by all who delight in them Ps 111:2 (NASB)

Institute for the Study of Christianity in an Age of Science and Technology

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The views in this Bulletin are those of the individual authors or the editor. They do not necessarily reflect the official views of the ISCAST Board.

Editorial

There is a mixed bag in the Bulletin this issue. Mark Worthing and John White report on the founding meeting in Granada of the International Society for Science and Religion.

There is an article by Ross Macmillan on appropriate technology. This is based on a "Fire in the Belly" meeting of ISCAST Victoria two years ago. Appropriate technology is often linked to minimal technology. However appropriate technology surely means technology appropriate to the task at hand. Simple cooking stoves that use fuel more efficiently are an appropriate technology to improve the appalling levels on indoor (and outdoor) air pollution in many parts of Africa, South America, and India, as well as using fuel resources more efficiently and reducing the work load on those (usually women and children) to collect fuel. Conversely, the potential of genetically modified crops for improved yields and reduced dependence on agricultural chemicals is also an appropriate technology to feed a global population that will double in the next century or so. Much of the opposition to genetically modified crops is reminiscent of the opposition amongst well fed intellectuals, mainly in the west, to the previous green revolution that successfully fed the doubling of the population that occurred over the last 50 years. Ian Hore-Lacy's review of *Modifying Creation?—GM crops and foods: a Christian perspective*, is therefore timely.

Other book reviews to tempt you are about works on cosmology, the interaction of science and faith, and Darwin's daughter. If you have read a book recently and would like to review it for the ISCAST Bulletin, please do so.

Finally, remember that the next ISCAST conference is less than a year away. I hope you have already marked the date, the weekend of July 18-20, 2003 in your diaries. The theme is *God, Science, and Divine Action*. For further details look for the advertisement inside.

Jonathan Clarke

CAMBRIDGE PAPERS

Cambridge Papers is a non-profit making quarterly publication which aims to contribute to debate on contemporary issues from a Christian perspective.

Recent topics which have been covered are:

- Multiculturalism
- Render unto Caesar? The dilemmas to taxation policy
- Cloning Humans – distorting the image of God?
- Secularisation: is it inevitable?

The writing group is an informal association of Christians sharing common convictions and concerns. The contribution of each is as an individual only and not representative of any church or organisation.

There is no subscription charge and if you wish to be added to the mailing list please contact: Anne Gower, Administrator – Cambridge Papers, Jubilee House, 3 Hooper Street, Cambridge CB1 2NZ UK Telephone (0) 1223 566319 or email annegower@jubilee.centre.clara.net

News

Report on International Society for Science and Religion

Founding Meeting Granada Spain 12-23 August 2002

Dr Mark Worthing and Professor John White were two fellows of ISCAST invited to this meeting by the Executive Committee of the Society which was formally established on Friday 23 August after discussions by invited members of the Society during the week. The aim of this report is to give ISCASTians some impressions of the intentions of the Society, of the papers presented and of ways in which organisations such as ours might usefully collaborate with it in promotion of the study of the relation between science and religion, as well as in education on a national and international basis of a true relationship between modern science and belief.

The meeting was purposely situated in Granada and we had a day-long tour of the mosque/cathedral of Cordoba—these sites, and the structure of the meeting, illustrating the harmonious co-existence of what John Polkinghorne called the "Abrahamic faiths" in the region for nearly eight hundred years in the late middle ages until the expulsion of the Moors in 1492 when Granada was handed over

after a two year siege to Queen Isabella of Spain. After a few days in the region, the enduring depth of inter-penetration of Moslem and Christian architecture and habits of living, and to some extent philosophy, was tangible and appreciated.

The principal events of the meeting were

- Eight plenary lectures of 90 minutes each with discussion, on subjects ranging from science and religion: "Where have we come from and where are we going?—John Polkinghorne—to Malcolm Jeeves' lecture on "The human sciences and human nature".
- Two business meetings to discuss and legally enact the formation of the society.
- Breakout groups to think about the future activity of the Society in the areas of physical sciences, biological sciences, human sciences, information and computing sciences, history of science and philosophy.
- A meeting of Australian and Asian members of the Society about possibility for collaboration in our region on scholarly; contributions and public discussion of; the science-religion debate.

Short reports on these will be given below.

There were 74 invited participants at the meeting. Their international distinction in science and contributions to the study of science and religion in Christian, Arabic and Jewish traditions made the contacts at and outside the meeting itself memorable. The discussions at the breakout groups particularly illustrated this. Some of the best people in the field were present and it was possible to develop an informed consensus not only of what were the important areas of present and future interest in a particular religious tradition, but where there was also the possibility of interfaith collaboration for the better understanding of religious and ethical issues. Informed discussion at the working groups was particularly stimulating and it is expected that there will come from some of them major proposals of wide interest for funding projects.

For example, in the biological sciences area the current debate of when life begins, and what the astrophysicists might be looking for if they hope to identify extra terrestrial life, as well as the philosophical questions of whether the notion of life contains teleological and purposeful components led to a potential proposal:

"What is life?—scientific and religious responses and consequences"

In the discussion leading to this, very recent publications and discussions were brought to bear. For example it was predicted that, following genomics and proteomics, there would be a major need to understand haplotypes. These are concerned with the fact that when chromosomes split in gene transfer they split at weak links and so a lot of genes are always transmitted together. The identification of these links and the differences between the weak points for the DNA of different races and generations may lead to greatly enhanced understanding of the 'family of humanity'.

After some scepticism, most attendees were completely convinced of the power of the assembled talent and its value as an international resource to develop definitive positions in relation to major new advances in science and their impact not only on the religious traditions represented but on others.

Accordingly the Society, according to its articles and explanatory documents circulated at the outset, was voted into existence on Friday 23 August 2002.

It will be of interest to see how more focussed groups, such as ISCAST, can contribute to this enterprise. We would be glad to have input from ISCASTians about this and will be glad to supply more information about the membership of the Society and its intentions, its projected website and the ways in which interaction can be mediated. The total number of members of the society will be limited to 150 persons. At present there is a total number of ninety eight members, six from Australia and NZ. In addition to ourselves, these are Paul Davies, Denis Edwards, Peter Harrison and Gareth Jones (NZ).

At our brief regional meeting with colleagues from Korea and India, possible ways in which Australia and NZ might work together with initiatives in other Asian countries were discussed. Major developments are occurring in Hong Kong and China. At this short meeting it was decided:

- that we would form a regional companion society or group, possibly a subgroup of ISSR; that this subgroup would ask for visibility on the ISSR website;
- that Korea will develop their own discussion groups in the Korean language but will relay messages about developments in English. The same will be done for India;
- that for Australia and NZ there would be this report in the ISCAST Bulletin.

Denis Edwards will talk to his contacts about these developments; Mark will make contact with the Australian Theological Foundation about developments; and John shall be contacting St Marks College in Canberra. Mark Worthing reported that existing seed money from the SRCP would be used to promote the discussions in Australia towards a planned meeting in Australia in January 2004.

John White and Mark Worthing

COSAC 2003
ISCAST's 4th Conference on Science and Christianity

GOD, SCIENCE AND DIVINE ACTION

Avondale College, Cooranbong, NSW
(Cooranbong is about one hour's drive north of Sydney, 2 hours by train)

July 18-20, 2003

Inquiries to Dr. Peter Barry 72 St Thomas St, Clovelly, NSW 2031

P.Barry@unsw.edu.au or www.iscast.org.au

Articles

Appropriate Technology for Development

This is the text of an ISCAST Victoria "Fire in the Belly" talk presented on August 12th, 2000.

One area of technology that interests me as an agricultural engineer is the application of technology; in less developed countries; in some ways Australia is such a country.

By way of background it is perhaps necessary to mention briefly the various models associated with the process of development that have been; identified (adapted for Mercer 1981). They are 'models'; none appears in its 'pure' form.

- the trickle down model—the development will 'trickle down' from developed to less developed countries
- the aid/interdependence model—development will occur if developed countries help the less developed
- the isolation/self reliance model—if countries are left alone they will develop in a satisfactory way (China)
- the liberation model—liberation of people from oppressive elites/Western entrepreneurs; will change political structures in their country to allow development
- the people centred model—if people control their own development and its level, then it will be suitable and they will prosper.

The model that has most interested Christian

workers in less developed countries has been the 'people centred' model—adopted as a reaction to some of the others that have been less successful. One important aspect of these models that is relevant to this discussion is that (briefly put) there is a 'level' of technology that is; sometimes or commonly associated with each of the above models.

The technological level that is associated with the 'people centred development' has been given various names including:

- appropriate technology
- intermediate technology (after E.F. Schumacher)
- alternative technology
- neighbourhood technology
- village technology
- technology for development

For various reasons the whole idea of 'appropriate technology', and this term in particular, has not always been popular in developing countries but for simplicity I will continue to use it here.

As the name implies, it is technology that is appropriate to the level of socio-economic conditions in the country concerned. This might in some countries, or in some sectors, be 'high tech', as for example, in a communication system. In other sectors, such as in agriculture, it might be 'low tech', for example using animal power.

It is in education for promoting appropriate technology (and particularly appropriate

agricultural technology) that I have been most interested and about which the fire smoulders!

You might be excused for thinking that some technological development is not a thing to get 'fire in the belly' over but it represents one aspect or facet of the divide between less developed and more developed nations. So 'people centred' development and 'appropriate technology'; go together and provide a stepping stone for communities to begin the task of sharing in the earth's resources and its values in a holistic way.

But where is the fire from? I suppose it is the 'inequality' that is most distressing.

'If anyone has the world's goods and sees his brother in need yet closes his heart against him, how does God's love abide in him. (1 John 3:17)'

This you see is a problem of distribution and as I look at the world's resources (broadly defined) and at its technology, I am convicted about the mal-distribution.

It appears that we have spent vast resources on technologies that accentuate the inequality, and much less, or we have been much less effective, in steps to reduce it.

If I go into the newsagents I see literally dozens of glossy colour magazines but when I go to the libraries of the third world I see tired old books of inappropriate western technology. And I can't get a publisher for my book for students in third world countries.

If I look at the process of agriculture of the third world I see them trapped in traditional activities. I am interested in the process of winnowing. If I compare winnowing in China in the 12th century and the same process in India today I see that apparently little has been learnt about the fluid—particle dynamics of this process in 800 years! But there are journals on hypersonic aerodynamics weighing down the shelves in our libraries.

If we look at power for traction in agriculture we see little interest in animal traction which involves perhaps 20% of the energy in agriculture on a world scale, but much in the latest controls and gadgets on our tractors which provides perhaps 10%. The work rate of machines in agriculture in the West has gone up by a factor of, say, 20 in the last 50 years;

that for peasant agriculture, hardly at all.

Drying of crops is crucial for their preservation but drying of staple crops for local use in the third world is a non—issue compared to the production and export of cash crops for markets in the third world. There is little interest in a project we have to promote solar drying in 3rd world.

More generally, there is the resource of digital communication and the inequality between the information hungry and the information obese. Like the example of the books it is not just the hardware that is not available but it is the scarcity of data relevant to their life and work that makes this inequality so distressing.

And so I could go on. For me the problem is one of mal-distribution, of inequality, of seeing one's neighbour in need of the skills that I might have to help alleviate their powerlessness. It is this which stokes the fire for me!

Now of course in relation to people centred development we might argue like:

Jim Hacker (Minister for Overseas Development): Humphrey, I am convinced of the idea of changing government policy in favour of people centred development.

Humphrey: Minister, we cannot influence technological development in third world countries but if it can be done, it should not be done.

However if it is done it will not succeed; but if it does succeed, them economists won't approve.

However if the economists do approve, the politicians won't like it; but if the politicians like it, it won't be popular with the electorate.

Jim Hacker: No Humphrey, no, my mind is made up ... what did you say? You know Humphrey, we must be careful in some of these matters.

Humphrey: Yes Minister.

Reference: Mercer, P. (1981) Australia and the Third World —A Christian Perspective. Zadok Paper No. S16.

Ross Macmillan

Science and Christian Belief

The Journal of Christians in Science (UK). It comes out twice a year and contains many thoughtful articles.

Cost: Aust\$50 for one year's subscription

For subscription contact Helen Joynt, Administrative Secretary ISCAST (Victoria)

Book Reviews

A Christian view of GM food

Modifying Creation?—GM crops and foods: a Christian perspective, Bruce, Donald & Horrocks, Don (eds), Paternoster (an Evangelical Alliance Policy Commission report), 2001, paperback, ISBN 1-8422.7100-8, £7.99 (about \$14 in Aust)

As well as being something of a primer on GM crops and foods, this statement is a very fine example of Christian collaboration among well-qualified people and retailing the results of it. It covers very comprehensively the Christian and other ethical underpinnings of an understanding of GM technology in this area. A chapter on theological reflection on GM crops and food includes sections on the place of science, the Fall, science as ideology, and neo-pagan views of nature—"we must distinguish between a Christian care for creation and a neo-pagan deification of it."; Finally "the theology of wisdom stresses the wise application of human knowledge, that even in our finiteness and fallenness, God still calls us to act creatively knowing that we cannot know all the consequences in advance"—a fair Christian articulation of the so-called precautionary principle!

After a chapter on risks of GM crops and foods, and addressing the question of UK and developing world need for them, the report finally comes down with qualified support for GM technology as part of God's provision in line with technology generally, serving the needs of people. The qualifications and caveats enunciated are essentially those I would apply to any use of technology, though I feel the negative tone of their reflections is overdone. The report is firm on the need for Christians to avoid both scientism on one hand and the folksy and sometimes neo-pagan pseudoscience on the other, and organic farming is discussed in relation to the latter.

But the main value of the book is in its detailed examination of the positive and potentially negative environmental effects of accelerating selective breeding by use of GM technology, and what regulatory safeguards are required. Fears about health effects are also addressed.

This review is being completed in a week when the BBC has run an alarmist drama on GM crops which provoked a strong response from the Royal Society (www.royalsoc.ac.uk—which has several very good GM reports also), supported by Tony Blair and countered by Prince Charles!; I can only say that it is good to see some other branch of science and technology grappling with the scaremongering nonsense that nuclear energy has endured for decades!

Ian Hore-Lacy

Something for everyone?

Science and Christianity: Four Views, Richard F Carlson (ed), Inter Varsity Press, 2000

Here is a book to please and annoy everyone, because it presents four views on the relationship between biblically informed theology and modern science. Wayne Frair and Gray Patterson present the case for creation; Jean Pond independence; Stephen Meyer qualified agreement (intelligent design) and Howard Van Till partnership. Each contributor is a practising scientist, but perhaps not as "theologically literate" as say Jeeves and Berry in their "Science, Life and Christian Belief". The book is a useful introduction to the various views, with responses from the other positions. It is fascinating, and at times frustrating. It seems to me that there is a strong need for scientists to be more theologically literate to further examine these issues.

Approach to scripture

Central to the creation view is an inerrant bible (the subtitle of their chapter). The bible informs us that God created everything, therefore we believe this because the bible does not lie. No doubt this view is seen as circular reasoning by some, but a belief in the validity of scripture is the act of faith required of a Christian. Jean Pond's response reflects her episcopal background, they do not use the word "inerrant". She muddies the waters with talk of the lack of ability to find agreement on "peripheral points" such as women's ordination and homosexuality (p80), claiming that "our understanding of Scripture should be a dynamic one and open to change", a comment which while commendable on some issues also inspires in me a deep suspicion!; Meyer's response is to ask how we might establish inerrancy: faith maybe Stephen?; Van Till calls it a humanly crafted proposition!; I agree with him that we should avoid concordism and differentiate between a doctrine of creation and various portraits. However, some of these views of scripture seem all too low for my liking. And what of theology?; Pond views our dataset as fixed (Scripture), whereas I think that Van Till is right in saying that all of human experience should be considered (p123); not to change our doctrine, but to continue to shape our dialogue with the world.

Approach to nature/creation

The case of creation represents a "God of the gaps" position, such as the quote "given the difficulty that modern chemists have in reproducing the molecules of life..." (p39). Unhelpful analogies are used, relating the formation of the cell to a tornado in a junkyard producing a 747 (p40). The intelligent design (new creationism) case makes much of Michael Behe's irreducible complexity, something Michael Ruse in "Can a Darwinian be a Christian" shows to be a weak argument. Perhaps the best framing of the issue is by Van Till. He talks about the "creation's formational economy" (p214), and believes that it is sufficiently robust such that our epistemological ignorance does not equal ontological gaps. That is, he argues for a robust formational economy (RFE) principle which is not naturalistic but a gift from the creator. This means that creation is continuous not episodic. Intelligent design does not mean episodic "hands" but continuous, purposeful designing "mind" (p226). RFE has been described by Polkinghorne as the "free will" of the creation. Perhaps more theologically

literate contributors might investigate how free will and divine will interact in the creation, just as theologians have examined this issue for human salvation.

Giving modernism the victory

Jean Pond's approach is very defensive, perhaps from years of being accused of not being a Christian by creationists. Ultimately, however, her view of independence is based on two things: (i) wanting to avoid conflict; (ii) Stephen J Gould's "non-overlapping magisteria (NOMA)" principle. While I agree that "God did it" is not a satisfying answer in science (p98), Pond has let modernism chase Christianity away behind locked doors. She claims "while science may challenge our interpretations of scripture, it cannot invalidate our faith". Here she argues we can't reach the right interpretation of Scripture on some issues and essentially that the bible doesn't relate to real things anyway. As Meyer responds, the bible makes claims about real history (p111) just as science seeks to find causes in history (p113), and they make potentially conflicting claims about human nature. There is conflict that cannot be avoided unless we swallow modernism hook, line and sinker. Pond's view is based on NOMA, not hermeneutics (p115).

Mick Pope

The Universe in a Nutshell

Stephen Hawking, Bantam, Sydney 2001, 216 pages.

The author of this book is arguably the greatest cosmologist of our era, though terribly crippled by motor neurone disease. He wrote the best-seller "A Brief History of Time".

The book has excellent potential to instruct those of us who wish to relate the mechanism of the universe to Christianity. It is attractively presented with many clear diagrams but without mathematics. It deals with origins, with the nature of time, with the higher dimensions of space-time, with "dark matter", with "black holes", and with the future of the universe.

It does not invoke the divine. Hence it has nothing to say about a first cause. To the reviewer, it is inconsistent for a writer on cosmology to ignore this. The book does say a lot about the "anthropic principle" (if any of the major parameters of creation were changed

significantly, we could not be here to observe them), but without attempting to explain why this should be so. Things are the way they are because they are, though ours is a most improbable planet.

Hawking does not expect life to exist on other worlds, primarily because civilisation occupies so brief a time span, and the age of the universe is so great, that the possibility of any two civilisations existing in the same time span is vanishingly small.

Some of his speculations towards the end of the book seem quite exotic. As a way of explaining certain gravitational effects, he postulates action across parallel universes ("M-branes"). If Hawking were to acknowledge a Creator, he would find Him incredibly marvellously creative.

God at work

God the Worker, Robert Banks, Albatross Books, Sutherland, NSW, 415.

The Christian/Protestant/ Puritan work ethic (take your pick) seems to come in for a great deal of popular abuse, especially in the secular media. It is supposedly the root of our environmental crisis, capitalism, and our obsession with materialism. Some Christians seem to regard work as a consequence of the fall, or something that some Christians do to raise money for Christian work (with the implication that other work is not the Lord's).

But none of this is Biblical. God has placed humanity into the world to work, gifted individuals to work, and blessed those who work faithfully. Work is so important to God that He hallows it not only by describing His own activity as work but by using human work as a metaphor for Divine activity. Our work is important to God, because in it we not only fulfil His creational commandments but by doing it right we reflect aspects of God's relationship with His world. Work is a fundamental part of being in the image of God and all work is thus Christian work.

I previously referred to this Australian book in my editorial for Bulletin 31, which was devoted to the subject of science, technology, and the environment. The book is, in the author's words, "a journey of exploration and discovery" into the biblical images of divine action drawn from every day activity. These images are drawn from such diverse activities as composer and performer, metalworker and

potter, clothes maker and dresser, gardener and orchardist, farmer and viticulturalist, shepherd and pastoralist, tentmaker and builder. Much of our understanding of God's work is abstract so I found it refreshing to be reminded that the Biblical revelation of Divine action is not abstract but through metaphor. Although limited, metaphors also express the living relationship between God and His world that abstractions do not capture. So in the metaphors in this book we see God sometimes portrayed as coercive in relation to His creation (God as metalworker and potter) and sometimes cooperative (God as pastoralist and farmer). God is sometimes pictured as working directly with the subject (God as tent maker and clothes maker) and sometimes through agents (God as builder and architect). In these cases God's work is concrete and lasting (in a material sense), in others it is abstract or ephemeral (God as composer and performer).

I found this book encouraging as a Christian worker, to be reminded that what I do and how I do it is important to God. It also prompted me to reflect on the fact that all of these images are drawn from bronze and iron-age technology. What might be gained from thinking on God's action using contemporary metaphors?; God as novelist or film director, perhaps, or God as programmer or communications engineer, perhaps?; Not that these should replace the Biblically mandated imagery, but as a guide to our own personal reflection.

Jonathan Clarke

Darwin's daughter

Annie's Box Randal Keynes London: Fourth Estate, 2001. 331pp. hb. £16.99. ISBN 1-84115-060-6

Of the making of books there is no end, particularly on Darwin! This book gives the short life and tragic death of Darwin's favourite daughter who died aged ten in 1851. Annie is mentioned in most biographies and Jim Moore argued that her death caused the demise of Darwin's faith.

The material on Annie's life is sparse and is limited to family letters from 1841 until 1851 and "Annie's Box", which was her writing case kept and treasured by her mother. The vignette given is excellent on both the Darwins' family life and Annie's brief life. It gives a superb portrait of mid-Victorian family life, which appears very un-Victorian. Images abound-

Darwin humming the hymn-tune *All through the night* and the children using the living-room furniture as an express train. On Annie, Keynes has drawn out as much as anyone could and having been to Annie's grave in Malvern I felt the poignancy of the account.

Keynes then tried to show how Annie's death influenced the writing of *The Origin of Species* but he is unconvincing. He reiterates the hackneyed story of the mental turmoil caused to Darwin by his theories. This is compounded by his poor understanding of Victorian Christianity, as he assumes that most Christians had problems with the age of the earth. They did not. In the early chapters Keynes narrated Darwin's scientific development, but fails to see that Darwin was first a geologist and only after 1840 a biologist. In assessing Darwin's religious questioning in 1838 – the most important year in relation to Darwin's faith – he goes far beyond the evidence from Darwin's notes and *Autobiography* (which was written 40 years later and contains many inaccurate memories). Keynes writes:

"After rejecting a literal reading of the Genesis account of the Creation as he learnt about the vastness of geological time, Charles questioned other historical parts of the Hebrew Bible." (p. 43)

Charles **did** question the latter, but there is no evidence that he ever took Genesis literally, despite a reference in his unreliable *Autobiography*. While at Edinburgh and Cambridge he was taught old earth ways; by Grant, Jameson, Henslow and Sedgwick. He did not need Lyell to tell him! Keynes' poor grasp of Christianity is also demonstrated by stating that Emma's "liberal Unitarian views ...was also the message of the Evangelical movement." (p50) This type of inaccurate understanding of Christianity past and present is a common feature of much recent popular history of science and occurs frequently in writers like Steve Jones, Simon Winchester and John Gribbin. The cause seems to be a prejudice that all Christians were literalists

until the heroic Darwin made them submit! It is also manifest in much Christian writing whether by creationists or liberals. Examples of the latter are John Spong, Don Cupitt and Paul Badham, yet they berate evangelicals for poor scholarship.

Keynes subscribes to the unproven view that Darwin's illness was caused by angst over evolution, but fails to give references(p135). If religious concerns over evolution made Darwin ill, then why are there no other recorded instances of this, by agnostics such as Huxley and Hooker, or by Christians "evolutionists" such as Tristram, Temple, Church, Gray, Babington or Kingsley or "anti-evolutionists" such as Wilberforce, Sedgwick, Rorison, Birks or Hodge? At times he becomes too sweeping as when he said that in Malvern in 1849 Charles went out for long walks on his own "on the great hill above the house", whereas writing to his cousin Fox in April 1849, Darwin said that, "in four walks I managed seven miles!" For someone just turned 40 that is a feeble effort and is a far cry from the 25 miles he walked in a day in the Highlands in 1838. Unless, of course, Darwin suffered from a physical illness overlooked by post-evolutionary psychologists.

Is this book worth reading? Yes, as it gives a good insight into Victorian family life and the tragically short life of a Victorian child. No, as it is typical of much recent popular Darwin writing as it is not well-researched or referenced and dependent on a very negative view of Victorian Christianity. It is another example of the false perspective given by Andrew White's *The Warfare of Science and Theology*, which passes from generation to generation like a rogue gene. However, the book is worth reading just to present Darwin as a delightful person – which he was – and the joys and sorrows of his life, but there is not enough material for a full-length book.

Michael Roberts

Books on Science and Religion from the Australian Theological Fellowship

"God, Life, Intelligence, & the Universe."; Edited by Terrance J Kelly and Hillary D. Regan. ATF Science and Theology Series: One, 2001. \$35.00

"Interdisciplinary Perspectives on Cosmology and Biological Evolution." Edited by Hillary D. Regan and Mark Worthing. ATF Science and Theology Series: Two, 2001. \$25.00

"Habitats of Grace: biology, Christianity, and the global environmental crisis." Carolyn M. King, ATF Science and Theology Series: Three, 2001. \$25.00

These books can be ordered from the Australian Theological Forum, P.O. Box 504 Hindmarsh SA 5007

Letters

Problems with Scientific American?

The writer has been reading *Scientific American* for forty years or so with much pleasure and profit. For the first time he has encountered an article which he considers less than professional, i.e. the July 2002 paper which debunks simplistic American creationism as the *Scientific American* editors see it.

Therefore he sent them a note to this effect, pointing out that many creationists are quite learned, and have come to considered opinions carefully. He referred to our Australian ISCAST, a learned association of many scholars with at least relevant masters' degrees, dedicated to examining the interface between science and Christianity, which exemplifies this. To treat their thinking as "nonsense" or even "dishonest", using "typically specious" arguments, when the article admits that the "origin of life remains very much a mystery" seems unscholarly and unworthy of their otherwise worthy publication.

It would have been more appropriate for *Scientific American* to consider the main difficulties in the theory of evolution, e.g. the impossibility of certain highly complex enzymes which are necessary to the processes

of life existing outside their biological environment, requiring that a whole environment emerge in a controlled situation, on the face of it a highly improbable event. It is the first emergence which is the mystery which the editors, if they enter this field, must consider seriously.

Their argument from the "13-letter sequence" is specious, because it requires reference to an *a priori* order, the source of which is not explained. To the writer, once a consultant in applications of mathematical statistics, without objective consideration of the statistical difficulties in evolutionary theory, no writer is qualified to deride alternatives.

And the article blurs the distinction between variation, which readily produces new species, and evolution. And no learned article in support of evolution is adequate without attempting explanations of the wonder of diverse chromosomal numbers. And so on. Much more could be said, and no doubt thousands of correspondents world-wide have said it. It will be interesting to see what *Scientific American* prints next in this area.

Ian McDowell

The deadline for submissions for the next issue of the Bulletin is November 30th

Word limit for articles is 1,000 words, for letters, reflections and book reviews 600 words. Exceptions may be made in exceptional cases.

Please submit to Jonathan Clarke at the address on the front page. Electronic submissions preferred.