

OFFICERS OF THE SOCIETY

Visitor

The Lord Archbishop of York
The Most Revd & Rt Hon John S Habgood
Bishopthorpe Palace, Bishopthorpe, York YO2 1QE

Warden

The Revd Dr Arthur R Peacocke
55 St John Street, Oxford OX1 2LQ 0865-512041

Treasurer

The Revd Kevin G Horswell
St Mary's Rectory
Pulford Lane, Dodleston
Chester CH49NN 0244-660257

Assistant Secretary

The Revd Robert T Nelson
5 Sedbergh Rd, Wallasey
Wirral, Merseyside L44 2BR
051-630 2830

Secretary

The Revd Derek J Leyland
St Helen's Vicarage
Churchtown, Garstang
Preston PR3 0HS 0995-602294

Bulletin Editor

The Revd Bernard Dagnall
The Vicarage
75 St John's Road, Huddersfield
HD1 5EA 0484-427071

CHAPTER CONVENORS

South

The Revd Canon Michael Benton
28 Denham Close, Winchester
Hants SO23 7BL
0962-55964

East Anglia

The Revd Dr Christopher Knight
79 Alpha Road
Cambridge CB4 3DQ
0223-351976

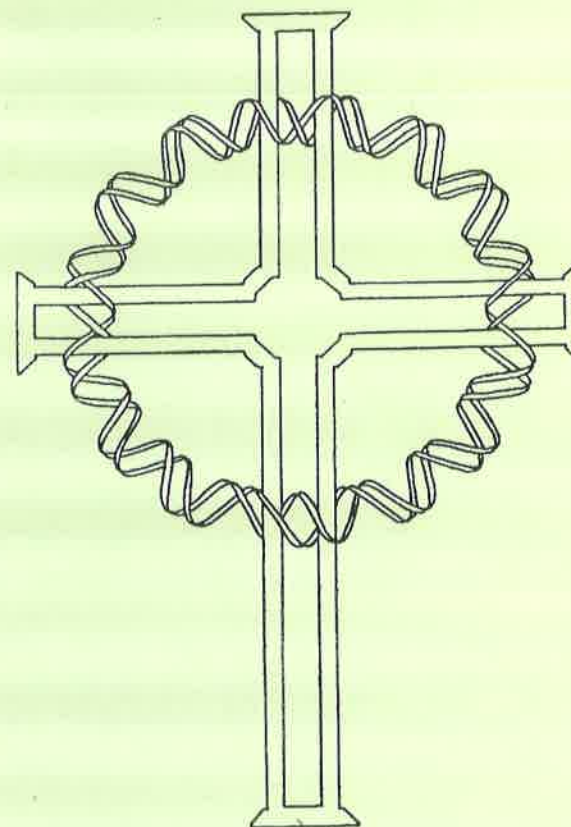
North

The Revd Dr David Whiting
41 Clarence Road
Barrow-in-Furness, Cumbria
LA 14 5LS 0229-837249

Midlands

The Revd Dr Geoff Turnock
51 Brambling Way
Oadby, Leicester LE2 5PB
0533-714115

BULLETIN No 7 SPRING 1992



SOCIETY OF ORDAINED SCIENTISTS

The AIMS of the Society are:

1. To offer to God in our ordained role the work of science in the exploration and stewardship of creation.
2. To express both the commitment of the Church to the scientific enterprise and our concern for its impact on the world.
3. To develop a fellowship of prayer for ordained scientists by the following of a common rule.
4. To support each other in our vocation.
5. To serve the Church in its relation to science and technology.

The RULE of the Society is:

1. To pray daily for the aims of the Society and for its members.
2. To remember the Society and its members monthly at public worship.
3. To endeavour to attend the annual gathering and retreat of the Society.

SOSc Collect

ALMIGHTY GOD, Creator and Redeemer of all that is, source and foundation of time and space, matter and energy, life and consciousness: Grant us in this Society (especially our brother/sister...) and all who study the mysteries of your creation, grace to be true witnesses to your glory and faithful stewards of your gifts; Through Jesus Christ our Lord. *Amen.*

From the Editor

This *Bulletin* is rather larger than usual, because I have included the full text of Professor Thomas Torrance's talk **Incarnation and Atonement**. He delighted the Northern Chapter with this paper on 7 October 1991, and agreed to its publication in the *Bulletin*. We are, therefore, most grateful to the Professor for allowing his hitherto unpublished material to appear here.

Because of this a few articles have had to be held over until the next issue, which I hope to produce at Easter. Included in that issue will be a review by Bill Knight of Ross Thompson's book *Holy Ground*, which is mentioned in the Southern Chapter's report.

Now news from two of our members. At the moment MICHAEL BENTON is recovering from two spells in hospital for a hernia operation. We wish him a full recovery in the near future. Also SJOERD BONTING is going to return to the Netherlands from the USA in the spring of 1993.

I have been asked to mention the organisation **Christians in Science Education (CSE)**. This has grown out of the work of **Christians in Science** and the **Association of Christian Teachers**, to allow discussion, amongst teachers and others, about the position of the Christian faith in science education. CSE publishes a newsletter, a bibliography of relevant publications and promotes discussions. Further details can be obtained from the Secretary: **JOHN BAUSOR, 5 Longcrofte Road, Edgware, Middlesex HA8 6RR**. I know that several of our members are also members of CSE.

BERNARD DAGNALL

From the Warden, January 1992

In a Decade of Evangelism we cannot avoid reflecting on any special role we might have, individually and corporately, as ordained scientists in the enterprise. That we do indeed have a distinctive role has been borne in upon me again recently by my re-reading of the reports of those studies (mentioned in the last *Bulletin*, No. 6, p. 3) which were made by one of our members, Peter Fulljames, together with Harry Gibson and Leslie Francis. They made an extensive, and sociologically professional, investigation of the attitudes towards Christianity, creationism and scientism of 11-18 year olds in Scotland. To give a little more detail this time - they found an apparently 'negative relationship between attitudes towards Christianity and interest in science'. This negative correlation was found, after allowing for the many social, personal and cultural factors that might have been

involved, to be explained by: (i) the perception of Christianity as necessarily involving creationism; and (ii) the view that science attains absolute truth ('scientism'). These Scottish pupils clearly had 'difficulty in combining an interest in science with positive attitudes towards Christianity'. (I think I've reported them correctly – no doubt Peter will amplify, if need be!) These findings echo very much those of the report of 13 years ago on *Young People's Beliefs* in England, made for the General Synod of the C. of E. So in spite of all the higher-level discussion of the relation of science and religion, nothing seems to have changed at the grass roots.

Or has it? Recognition of this situation has led a number of Christians who are informed about this relationship to produce materials for use in schools. Outstanding amongst these, in my view, is Michael Poole's *A Guide to Science and Belief* (a 'Lion Manual', Lion Publishing Co., Oxford, 1990, pbk. £5.99). It is very attractively presented visually (lots of good pictures and helpful diagrams to steer you through the arguments), very fair in its judgments and encourages the reader to think. I know non-scientific clergy who have found it extremely helpful in increasing their confidence to handle issues in science and religion. It ends with a fine quotation from Charles Coulson, the Methodist mathematical scientist:

Not until the power conferred by our knowledge has been recognized as God's gift, enabling his children to grow up into fully developed men and women;

...not until man's patient observation of the world around has led him on to awe and then to worship;

not until our science has shown us with what rich lustre the heavens declare the glory of God, and the firmament shows his handiwork;

not until then can human faith be as it was meant to be, nor human life fulfil its proper destiny ... nor our hearts be so astonished at the splendour of God's creation that they grasp eternity in a moment of time, and are lost in wonder, love and praise.

Coulson, whose lectures on quantum theory I attended in Oxford in the mid 1940s, has also been much in mind recently for an account of his religious and social thought appeared among my Christmas gifts. It is *The World of Science* by David and Eileen Hawkin (Epworth Press, London, 1989, pbk. £5.95) and brought again to life for me (? an *anamnesis*) one whose scientific expositions and whose life I had much admired. I myself was not so much directly influenced by the content of his thought as by observing the way he combined strong commitments to both science and to the Christian faith, as that quotation indicates.

One whose writings did influence me was Charles Raven and I was intrigued to come across a footnote (p. 210) in F. W. Dillistone's biography of that Charles (*Charles Raven – naturalist, historian and theologian*, Hodder and Stoughton, London, 1975) which showed how much Coulson had been helped by Raven to retain his personal faith when the tension between it and Coulson's newly acquired science became acute during his student days in Cambridge.

That is all personal biography, of course, but it does perhaps encourage us as ordained scientists, who have (and still are) working through the issues which arise in holding our faith in the light of our scientific knowledge, as we too become the recipients of similar influences, in a kind of 'trickle-down' effect, as was such a notable leader and thinker as Charles Coulson. (For the corresponding influences on Charles Raven, see Dillistone's biography.) So we need not be discouraged. Even so we are called to be the vehicles of the action of the Holy Spirit in our times in this regard, so we have to continue to be sensitive to his/her promptings to pass on the torch. Any practical suggestions how we as a Society might do so will be very welcome!

One of these, from the Northern chapter, has been the idea that an anthology might be compiled of some of our members' pilgrimages of faith. It would be distinct from some recent compilations of this kind from scientists describing what faith, if any, they have, for we are, after all, ordained – and that might have a different kind of impact. What do you think? Do write and tell the editor, and so the rest of us in the next *Bulletin*. Any offers to edit such a volume?

Coming to our own more domestic affairs, I am pleased to tell you that the Revd Professor C. F. D. Moule ('Charlie Moule' to us all!), formerly Lady Margaret Professor of Divinity at Cambridge, and the doyen of English New Testament scholars, has agreed to lead our meditations at Launde Abbey this coming July. My invitation to him, which he accepted readily and warmly, was prompted by a suggestion from several at an East Anglia Chapter meeting. So a happy thought come to fruition!

In connection with Chapter meetings, will the convenors, and everyone else, please make sure that Associates in the respective areas are invited too. Check with Robert Nelson if you are not sure who among them is within reach.

May you all have a blessed and fruitful 1992.

ARTHUR PEACOCKE

Report of the Northern Chapter

On 7 October the Northern Chapter had the privilege of meeting at Kinnaird House, Larbert, the home of Iain Paul's father-in-law. The setting and the hospitality we received from Iain's family was fine enough, but we had the added privilege of hearing a paper from Professor Thomas Torrance on the Incarnation and the Atonement.

The Christian church grew up within the Mediterranean culture. Embedded within the culture was a radical dualism against which Christian theology has long struggled. Modern scientific developments have demolished dualist ways of thinking. Professor Torrance's paper was particularly concerned with the Incarnation and the Atonement in the light of this scientific rejection of dualism.

At the meeting there were a number of members and contacts in Scotland who were able to attend the Chapter for the first time. We were grateful to Iain for arranging the meeting, particularly as not long before he had undergone a major heart operation.

There has been some movement in the Chapter: Stephen Bellamy after having served as Chaplain to the Bishop of Liverpool is now Vicar of St James' Southport. He remains within the Chapter area, but Tom Broadbent has moved to Ipswich to be Chaplain to Suffolk College. Tom was my predecessor as convenor of the Chapter and we are sorry to lose him, but wish him and his wife well in their new ministries.

The next meeting of the Chapter will be on 2 March at Bishop Mount, Ripon, as guests of John Young.

DAVID WHITING

Report of the Midlands Chapter

Our activities between the Annual Gatherings of 1990 and 1991 were devoted to our Warden's challenge to make the existence of the Society more widely known. The most interesting exercise we engaged in was to set up a small display at 'Seedtime', a festival organised by the diocese of Lichfield and held at the Staffordshire Show Ground in early May. Everybody was there from the cast of the 'Archers' to individual parishes, MOW and WAOW – and SOSc. We set out literature about the society against a tasteful backdrop of stoles with scientific motifs. Peter Levitt had persuaded his local SPCK bookshop to let him have a few relevant books

on sale or return, and we did some business on behalf of JP! Otherwise we found ourselves engaged in a number of worthwhile conversations about the Society. It was clear that people were agreeably surprised to discover the existence of such a group as ours. We would strongly recommend anyone who has the chance to take part in an event like 'Seedtime' to accept it as a useful way of reaching people who would otherwise have very little opportunity of finding out about SOSc. The science/religion debate is still a live issue for many in the church.

In addition, Peter Levitt took part in a Vith Form College seminar on Science and Technology in Telford in the spring and found, as other members of the Society have done on similar occasions, a considerable interest in the contribution theology can make, whilst I have spoken about the Society to colleagues in my deanery Chapter.

We welcome two new members to the Chapter, one, Maureen Palmer, by transfer from the south, and yet another NSM and product of the East Midlands Ministry Training Course, Reg Stretton.

GEOFF TURNOCK

Report of the Southern Chapter

Michael Benton, our convenor, is recovering well from further surgery: I write this on his behalf and send him our best wishes.

The Chapter met at Datchet, with Bill Knight leading discussion on that odd and perplexing book, Ross Thompson's *Holy Ground*; and at Avebury we were welcomed by Helen Stacey (on a bitterly cold day). At this second meeting, we warmed ourselves with forthright discussion about communicating our position on science and religion to fundamentalists and to atheists. The question of the isolation of members in the extremely broad geographically Southern Chapter remains unresolved. The question of a Chapter news-sheet to improve the sense of belonging of those who can't get to meetings was mooted.

The pattern of our meetings tends to be (i) time for personal news over coffee, (ii) a business meeting/reading of paper and discussion, then (iii) lunch, then (iv) the Eucharist. This seems to be agreeable to us all and will be the format of our next meeting with David Atkinson in Oxford in April.

JOHN KERR

Second Meeting of European Jesuit Scientists: Barcelona, 11–15 September 1991

An invitation to attend the Second Meeting of European Jesuit Scientists was initially extended to Arthur Peacocke (whose very good reason for not being free to go may be read in his Warden's Report!). In Chris Moss, S.J., Associate Member SOSc, we have already a very distinguished link with European Jesuit Scientists. However, the Society's view at Launde Abbey was that SOSc should respond to EJS by sending me as delegate to Barcelona.

There are three general points to make.

First, to acknowledge gratefully here the extraordinarily warm welcome received from Father Luis Archer SJ and his committee – an excellent connection has been established with European Jesuit Scientists.

Second is to record what a full and demanding programme they carried out: there was no lounging on Spanish beaches either in reality or metaphorically!

Third is to note how well-read in the philosophy and history of science the members of this conference were: most of us in SOSc have acquired learning in these areas only along the way and eclectically. In the course of their formative education as Jesuit scientists, members of SJ reach an enviable competence in general philosophy and theology. It means that they engage in the faith–science dialogue with a breadth of reference I found impressive. The concept of an 'intellectual apostolate' might be useful to us in thinking about what it means to be an ordained scientist in our tradition. Reflecting on this, I found myself asking, what training should we have? And how might we contribute to the continuing education of our members and of other clergy in training?

A series of papers looked in some detail at the history of Jesuit science in the XVI–XVIII centuries. The sense of historical continuity of an educational mission was most interesting. Perhaps increased reflection on the history of the relationship between science and faith in Britain might clarify our sense of the mission of SOSc today.

The Jesuit perspective on concerns we so often discuss was remarkably similar to our own. In the very first paper of the conference, Father Coyne of the Vatican Observatory described the 'New View from Rome' expressed by Pope John Paul II in 1988 as 'an uncertainty as to where the dialogue between science and faith will lead'. There is great *openness* to

admitting past errors, e.g. about Galileo, and to the insights which science may have to offer theology in the future (and less certainty about influences in the other direction).

In several papers, because of the Jesuits' European and indeed international world-wide operations, they could bring a critical awareness to the role of Western science in maintaining the dominance of the powerful over the poor. This note of ethical seriousness was often to be heard in reflections on the personal vocation of Jesuit scientists. I don't recall similar discussion in SOSc about the need for repentance in the way the interest of those in industry and the military who pay for so much of the scientific enterprise may act against meeting the needs of Christ's poor in this generation, though we do discuss the impact of present science and technology on the environment of future generations. This was an enjoyable, useful and thought-provoking conference: we may have much to learn from Jesuits in Science.

J. M. KERR

From the Treasurer

At the Committee meeting last week I was asked to make details of the Society's bank account available to members so that they can pay by Standing Order.

Society of Ordained Scientists
National Westminster Bank plc
Chester, Eastgate Branch
PO Box No. 8, 33 Eastgate St.
Chester CH1 1XA

Account number 79723748
Bank sort code 60-40-08

It was agreed at the meeting to recommend to the Annual Meeting that the subscription for 1993 remain at £16 for full members and £12 for associates.

KEVIN HORSWELL

THOMAS F. TORRANCE

Incarnation and Atonement: Theosis and Henosis in the light of modern scientific rejection of dualism

Part I

What are the basic conceptions of salvation which we need to bring to expression today in relation to our scientific discoveries about the created universe of space and time? Our concern is not, and can never be, to build Christian theology on natural science, if only because rigorous scientific inquiry in any field must be governed by the distinctive nature of the particular field concerned and by its intrinsic intelligibility or rationality. Nevertheless consideration of the conceptual interface between theological science and natural science often enables us to discern more clearly and grasp more firmly the space and time in which God has revealed himself to us through his Word, and is grounded in the intelligible content of that revelation, under the impact of which appropriate forms of thought develop in our understanding and correspondingly appropriate forms of speech arise in the Church or the believing and worshipping Community called into being through divine revelation. Christian theology is a rational human enterprise undertaken in corporate obedience to the self-revelation of God as he brought it to fulfilment in Jesus Christ in whom his eternal Word was made man within the structures of our personal and social existence in the world, and has taken form within the structures of our conceptual and verbal communication with one another. Since God has revealed himself to us within the universe of space and time which he has created and endowed with a rational order of its own contingent upon himself, there is and cannot but be a significant relation between the rational forms of thought that arise in Christian theology and the rational forms which under God are constantly being brought to light through our scientific inquiry.

In Christian theology we inquire into knowledge of God the Creator of the universe in accordance with what he reveals of himself to us through his Word, and in natural science we inquire into knowledge of the created universe in accordance with what it discloses to us through its contingent order, so that their inquiries run in opposite directions: toward God away from nature, and toward nature away from God. However, since both inquiries take place within the rational structures of the space-time universe, there is an area in which their concepts overlap, not least, in our

understanding of the incarnation of the Word of God within space and time. This overlap is highly significant for both theological and natural science. Thus any attempt to think of the incarnation detached from the empirical reality of space and time within which the Son of God became man, becomes self-contradictory and nonsensical: and any attempt to think of the empirical reality of the space-time universe apart from its contingent nature and order becomes self-contradictory and pointless. Properly speaking, then, Christian theology and natural science are in some measure partners in knowledge for each is concerned in its own way with an area where transcendent or divine order intersects or overlaps with imminent or contingent order. Transcendent order in God's self-revelation would mean nothing to us unless it reached us within the contingent structures of space and time to which we belong; but the order imminent in the structures of space and time would finally be meaningless if it were confined within self-enclosed necessities and were not contingent on and finally open to an ultimate ground of reality beyond itself.

Interrelations between theological and natural science can thus be helpful to both by enabling them to be faithful to the nature of the objective realities in their own fields and thus to be different forms of pure science. This is certainly important for natural science in helping it to free itself from false theological or philosophical notions such as that of the unmoved mover to which the concept of inertia and a determinist conception of the universe is to be traced back and which delayed until recent times a proper scientific grasp of the contingent nature and order of the empirical world. But it is also very important for theological science in helping it to purge itself of false notions discarded in the process of natural science but which have come to be embedded in theological formulations affected by the culture- and time-conditioned frameworks of thought with which the Christian community has operated in history. This is very evident, for example, in the different slants given to Christian theology through Hellenic and Latin cultures and the kind of apprehension embodied in them and fostered by them, but nowhere more evident than in the superstitious hangover of Enlightenment rationalism still very evident in contemporary theology.

My particular interest in this lecture is with the problem created for the Christian understanding of salvation by the radical dualism that was embedded in the mediterranean culture within which the Gospel was proclaimed and the Christian Church took its rise. This was a problem with which Christian theology struggled in the early centuries of our era, but it is one that has persisted through the centuries only to become more acute in the forms of dualism built into western culture and science through

classical mechanics and Enlightenment philosophy. In our day, however, rigorous science through dynamical field theory and its development in relativity and quantum theory and non-equilibrium thermodynamics have demolished dualist ways of thinking and recovered a conception of the contingent nature of the universe and its inherent intelligibility that enables us to understand in a new way the struggle of Nicene and classical ecumenical theology with the radical dualism it encountered in the ancient world, and to appreciate its achievement.

Moreover, what has now taken place has resulted in a profound change in the rational structure of science and its understanding of the open-structured nature of the space-time universe which makes it more congenial to Christian theology, and makes theological and natural science more open to dialogue with one another, especially in respect of the conceptual foundations of knowledge, where significant epistemological bridges can be built. At the same time, this is a dialogue which has the effect of exposing any weakness and error in theology due to compromise with dualist ways of thinking. This applies not least to our understanding of the incarnation and atonement, on which we are to focus attention here.

Already in apostolic times and immediately afterwards the proclamation of the saving acts of God in Jesus Christ within the dualist culture dominated by Greek philosophy and science had the effect of forcing the church to ask itself what was the central truth that underlay the Gospel message and provided it with its inner coherence. It was immediately clear, of course, that everything hinged on the *Deity of Christ*, for if he was not really God then there was no divine reality in anything he taught or did, and all that the Scriptures said about God's interaction with mankind could only be construed in some kind of symbolic or mythological way. Bound up with belief in the Deity of Christ there was at stake the presentation in the New Testament of an *unbroken relation in being and act between Jesus Christ and God the Father*. Especially in debates with the Arians it became clear to the Church Fathers that if that inner bond between the incarnate Son and God the Father were severed, the Gospel message of divine salvation would collapse for it would lose its inner integration and dynamic thrust, and some form of paganism would take over.

That was the crucial evangelical issue which the Church had to face in its early centuries, but along with it Christian theology was forced to deal with the underlying epistemological problem posed by the dualist structure of classical philosophy and science. The evangelical and the epistemological issues could not be separated. Thus what Christian theologians sought to do, far from submitting us to a Hellenisation of Christianity, was to set about

Christianising Hellenic culture, and so developed forms of expressing the truth of Gospel in a non-dualist way that had the effect of reconstructing the very foundations of knowledge. This is very apparent to us today in the Patristic concepts of the contingent nature of the created order, and of the relational structures of space and time, both of which cut clean across the accepted results of Greek science. That is, I believe, how we have to assess the epistemological significance of the Ecumenical Councils of the Church from Nicaea to Chalcedon.

It cannot be maintained that all was straightforward and consistent, but important ways of thinking were developed which are decisive for our concern with the incarnation and atonement.

On the one hand, in the concept of the *homoousion* the Church gave precise formulation to the oneness in being and act between Jesus Christ the incarnate Son and God the Father. This served a double purpose: it gave expression to the ontological substructure upon which the whole content of the Gospel of salvation rested, and at the same time it decisively set aside any dualist approach to understanding the relation between God and the world. In the Lord Jesus Christ it is none other than God himself who is present and savingly at work among us. The *homoousion* is also relevant to the doctrine of the Holy Spirit who is equally with the Son of one and the same being and act as God the Father. God is Spirit, and the Holy Spirit is the Spirit of the Father and the Son, so that, as Athanasius expressed it, there is one operation of grace from the Father fulfilled through the Son and in the Holy Spirit in one indivisible movement. It is in this connection that Patristic theology made such effective use of *theopoesis* or *theosis* to stress the nature of the saving and sanctifying activity of Christ and the Holy Spirit as the downright act of God himself upon us.

On the other hand, in the concept of the *hypostatic union* the Church gave careful conceptual formulation to the oneness between divine and human natures in the incarnate Person of the Son, the one Mediator between God and man, yet in such an open-structured way as to acknowledge that the mystery of that union defies positive formulation, and must always be allowed to disclose itself to us. But here too the stress upon *henosis* or *henosis kai koinonia* carried with it rejection of any dualist approach to understanding either the Person of Christ or his saving activity. The latent dualism in the traditional framework of thought was not easy to set aside as disagreement over the Tome of Leo and the Nestorian controversy showed. However, a henotic or unitary understanding of the incarnation was given powerful expression by Cyril of Alexandria in his insistence that in the union of divine and human natures in Christ there is only one indivisible divine-

human reality (*mia physis*), and that in his illuminating use of the theological couplet *anhypostasis* and *enhypostasis* which was carried forward by Severus of Antioch and John of Damascus, picked up at the Reformation, and has played such a significant role in the teaching of Karl Barth in our day.

The bearing of the *homoousion* and the *hypostatic union* upon the Christian doctrine of salvation is very far-reaching. The *homoousion* carries with it the realisation that if Jesus Christ is true God of true God then the incarnation takes place within the very life of God himself so that the saving work of the incarnate Son is grounded in the Holy Trinity. The *hypostatic union* carries with it the realisation that the atoning exchange whereby we are reconciled to God takes place within the incarnate constitution of the Lord Jesus Christ as the one Mediator between God and man. This means that the incarnation and the atonement are inseparably interlocked throughout the whole life of Jesus from his birth of the Virgin Mary to his resurrection from the dead. It is at this point that the divergence between the East and the West is probably deepest over the issue formulated so succinctly by Gregory the Theologian and Cyril of Alexandria: 'the unassumed is the unhealed' / 'what Christ has not taken up has not been saved'. If the incarnate Son through his birth of the Virgin Mary actually assumed our flesh of sin, the fallen, corrupt and enslaved human nature which we have all inherited from Adam, then the redeeming activity of Christ took place within the ontological depths of his humanity in such a way that far from sinning himself, he condemned sin in the flesh and sanctified what he assumed, so that incarnating and redeeming events were one and indivisible, from the very beginning of his earthly existence to its end in his death and resurrection.

It is particularly significant here that when in Jesus the Son of God became one with us as we actually are, and made his own our alienated mind in which the root and governing force of sin is found, in order to heal and redeem us, his saving work dealt not only with actual sin but with original sin. In this integration of incarnation and atonement the Saviour struck into the deep divide lodged in the heart of our fallen human being, very evident in the cleft between what we are and what we ought to be, in order to do away with it through uniting us to himself in his incarnate Sonship and making us partake of his own divine-human righteousness. In this event the doctrine of atonement must be formulated not within the parameters set by the unredeemed creation and its rational and moral order, but within the parameters which the atonement creates for itself within the structures of

our human existence in the world, that is, within the structure of the incarnate relation between God the Son and God the Father.

However, if the incarnation is not thought of in terms of the saving and healing assumption of our fallen human nature and is therefore not internally integrated with the atonement, then the doctrine of atonement can be formulated only in terms of an external transaction of a merely judicial and legalist kind, within the parameters of an unredeemed moral and legal order, and not primarily within the parameters of the Father-Son relation established and made absolutely preeminent through the obedience of the Son in the midst of our human existence. Moreover, if the incarnation and atonement are not internally integrated, then the humanity of Christ is regarded as functioning in the activity of God only in an instrumentalist way in which the saving agency of his vicarious human life is discounted or given only a minimal place in a doctrine of salvation.

On the other hand, if the incarnation and atonement inhere in one another throughout, then the saving work of Christ must be understood in a twofold but completely integrated way, as both the act of God in Jesus Christ from God *toward man*, and as the act of God in Jesus Christ from man *toward God*. That is surely how *propitiation* is to be understood as the saving activity of God and man in the one Person of Christ in which God draws near to us through the reconciling sacrifice of Christ and at the same time draws us near to himself, and thereby gives us access through Christ and in one Spirit to himself as the Father, grounding our salvation ultimately in his triune being. Here again we make use of the concepts of *theosis* and *henosis*. Our salvation depends entirely upon the downright act of God in Jesus Christ and the Holy Spirit. If Christ and the Spirit are not themselves true God of true God and completely one with the Father, then we are not saved, but we can be saved only by the act of God himself. This means once again that the saving economy enacted and proclaimed in the Gospel, is intrinsically trinitarian.

Part II

We must now give some consideration to this doctrine of salvation in the light of the relation between Christian theology and the structures of our scientific understanding of the world God has created, for after all he who became incarnate in our midst and died on the Cross for us and for our salvation is none other than the Creator of the universe in whom, as St Paul taught us, all visible and invisible realities consist and are reconciled together. We do this, let me repeat, not in order to build Christian theology

upon the discoveries of natural science, but in the hope that an exercise of this kind will help us to discern and appropriate more fully authentic theological truth on its own ground and in its own right.

1. Let us take first the *homoousion* and its radical rejection of dualism in an assertion of the direct action of God upon and in us through Christ and his Spirit within the created structures of the universe of space and time. In modern or classical Newtonian science there was disastrously built into our understanding of the universe a massive dualism between absolute time and space and relative time and space, in which all phenomena in the universe were explained and interpreted through clamping down upon them an abstract framework of absolute time and space, which gave rise to a rigidly determinist conception of nature and of natural law. Through Kantian metaphysics this dualism was built into the categorial structure of the human understanding so that Newtonian dualism and determinism were universalised in our western culture. The damaging effects of this are very evident in the lapse into a deistic non-interactionist view of the relation of God to the world, very evident for example in the radical disjunction between necessary truths of reason and accidental truths of history and in the axiomatic re-assumption of the ancient dualism between the intelligible and sensible worlds, both of which lie behind the demythologising programme put forward by Bultmann. But the massive dualism built into Western culture through the Enlightenment is nowhere more evident than in the widespread secularism rampant in the modern world.

However, this dualist way of thinking, whether epistemological or cosmological, has now shattered itself upon the development of unitary conceptions of space-time embedded in the universe of ongoing empirical reality, and in a profound unification of all scientific knowledge of the dynamic contingent rational order of the mathematical properties of light and its function in continuous dynamic fields as developed through relativity and quantum theory. I do not propose to enlarge on that here, but simply want to point out that this decisive rejection of dualism enables us to appreciate in a new way the profound insights gained by early Christian theology when it found that, to be faithful to the Gospel of God's revealing and saving acts in Jesus Christ, it had to reject the dualism that prevailed in ancient science and philosophy and reconstruct the foundations of knowledge. It also helps us to appreciate in a fresh way why the Church Fathers used the conceptions of *theosis* and *henosis* to lay such emphasis upon the downright act of God in the incarnation and atonement within the relational structures of space and time. The incarnate act of God in Jesus Christ was thus to be regarded as essentially an internal, not an external,

operator in a Christian understanding of both the moral and the temporal order in the universe in which God has planted us but which he has already redeemed and sanctified through the death and resurrection of Christ.

2. In the second place let us consider the *uniqueness* and *absoluteness* or the *singularity* of Jesus Christ as the one way to the Father and the one Mediator between God and man, apart from whom there is no salvation. He is the one Saviour of the world in whom all things visible and invisible consist and are reconciled. This concept of singularity was ruled completely out of court by the way in which classical modern science thought of universal natural law as reached through the generalisation of particulars, which was an extension of the identification of scientific thinking with thinking in terms of timeless necessary relations such as was provided in a paradigmatic way by Euclidean geometry. In the outlook of the Enlightenment this meant that Christianity could be given rational or scientific consideration only if it were regarded as one religion in a universal class of religions, which of course had the effect of discounting completely the uniqueness or absolute singularity of Christ and his saving activity. However, at this point also the rejection of singularity by the scientific and Enlightenment mind has come up against the decisive place now given to *singularity* in scientific understanding of the universe not as something peripheral, but as absolutely central.

I think here not simply of the absolute singularity of the black hole from which modern science holds that the whole universe of space and time has expanded, but of the absolute specificity of the invariant speed of light upon which all order in the universe depends. This applies to our knowledge of that order as well, for it is through the mathematical properties of light signals reaching us from all over the universe in its macrophysical and microphysical dimensions alike that information about the universe is derived. We must take together with that the revolutionary understanding of time, not only in its integration with space, but in its role as an internal operator in the thermodynamic understanding of being and becoming which transforms our understanding of historical relations in showing that they involve real time. Again, there is no need to say more about this astonishing bouleversement in science in its acceptance of the concept of *singularity*, but simply to point out that the old rationalist arguments against singularity have shattered themselves on empirical fact and scientific truth so that the way is now open, even for the most rigorous scientific mind, to give serious consideration to the unique place in Christian theology given to the incarnation of the Creator Word of God within the space-time universe upon which he has impressed its rational order, and thereby laid it open to

scientific inquiry. The recovery of resolute unambiguous belief in the *absolute singularity* of Jesus Christ is particularly important today in view of the insidious corrosion of that belief now going on in our multi-faith and multi-cultural world.

3. Now let us turn to the conception of the oneness of being and act between the incarnate Son and God the Father to which Nicene theology gave such attention. This so transformed the traditional view of God that it prompted Athanasius to coin not only the phrase *enousios logos* to speak of the inherence of the Word in God in his being, but also the phrase *enousios energeia* to speak of the inherence of the activity of God in his being, and conversely the inherence of his being in his activity. Thus there arose a dynamic understanding of God's being and an ontological understanding of his acts, which was quite impossible for Greek thought, as found for example in the Aristotelian notion of the unmoved mover. Unfortunately this way of thinking of God was later employed in Eastern theology by John of Damascus and in Western theology by Thomas Aquinas. Combined with a doctrine of the impassibility and immutability of God, this in turn was to give rise to the conception of *inertia* which played a central role in the scientific outlook of the seventeenth century and its determinist conception of the universe.

This way of thinking about God was called in question in the nineteenth century by Kierkegaard when he showed that we cannot do justice to the incarnation as the Word of God *become* flesh if we seek to interpret and express that becoming in static terms, such as were provided in Kant's absolute or unchanging categories of causality, time and space. But it was Einstein in his development of Clerk Maxwell's concept of the continuous dynamic field who demolished the notion of inertia and abandoned a way of thinking from a point of absolute rest, and sought to integrate the particle and the field. There are difficulties here, particularly acute in the dualistic way of understanding the behaviour of light both in an ontological way as a particle and in a dynamic way as a wave, but in our day relativistic quantum theory has come very close to achieving what Einstein envisioned. Be that as it may, contemporary science has found it essential to combine ontological and dynamic ways of thinking in order to do justice to the subtle and elusive behaviour of nature.

This is something, however, which Karl Barth had achieved earlier in his doctrine of God in which he brought together, rather like Athanasius, the being of God and the act of God to think of God's act-in-his-being and his being-in-his-act. As we have noted, Greek Patristic theology had integrated in its understanding the being and act of God, but the re-emergence of

dualism in the Byzantine East and in the Augustinian West had the effect of undermining that integration and of making medieval theology emphasise the being of God rather than his acts. Augustinian dualism was carried over from the medieval world into Reformation theology, but here an opposite movement of thought took place, for the concentration by the Reformers upon the saving and redeeming work of God in Christ led to a Protestant emphasis upon the acts of God rather than his being. Karl Barth, however, brought together the Patristic stress on the being of God in his acts and the Reformation stress upon the acts of God in his being, and integrated them into a powerful doctrine of God's being in his act and his act in his being. Without being aware of it he was carrying out in his own field what contemporary science was trying to achieve in its own field. I refer to this particularly in order to indicate that the more profoundly natural scientific inquiry penetrates into the kind of dynamic contingent order with which early Christian theology showed that God had endowed the universe, the more clearly there appears a significant overlap between the concepts of theological science and natural science which cannot but be of service to theological science as well as to natural science. Certainly a rigorous doctrine of God which in which dynamic and ontological factors are brought together cannot but find contemporary natural science rather more congenial than either ancient science or Enlightenment science.

4. In considering the relation between the incarnation and the atonement we noted that through Christ and in one Spirit we are given access to the Father and are enabled to know something of him in the internal relations of his triune being. And we noted that a doctrine of atonement is to be formulated in terms of what took place in the inner constitution of the Mediator, and thus in terms of internal and not external relations. This conception of the knowledge of realities in terms of their internal relations or intrinsic intelligibility was also applied to the Christian understanding of the universe. As created in form as well as matter out of nothing the universe was held to be characterised throughout by a contingent rational order laying it open to scientific investigation. The effect of this was to undermine the radical dichotomy between the theoretical and the empirical that pervaded Greek science and had been built into the prevailing Ptolemaic outlook upon the universe. Neither ancient science nor Enlightenment science operated with notions of the intrinsic intelligibility of the phenomenal world, but tried to make scientific sense of it by clamping down upon it theoretical constructs *ab extra*. Thus with Kant the laws of nature were regarded not as read out of nature but as read into nature, for realities, he held, cannot be known in their internal relations but only as they appear to us.

Once again, however, this denial of the possibility of knowing realities in the light of their internal relations or intrinsic intelligibility has been completely set aside. Today our science operates through penetrating as deeply as possible into the rational structure embedded in empirical reality in order to lay it bare and so to find ways of letting it disclose itself to our inquiries without any imposition of independently conceived concepts about them. Behind this lies the profound epistemological revolution brought about through general relativity, in the discovery that empirical and theoretical factors are always interlocked both in nature itself and in our knowledge of it. This is basically not unlike the transformation in the foundations of knowledge carried out by the great theologians of the fourth and fifth centuries of our era. But the epistemological revolution stemming from our modern scientific advance is as yet scarcely recognised, let alone appreciated by theologians or biblical scholars today, although it can do much to dismantle the obstruction of time- and culture-conditioned notions that are pseudo-scientific and pseudo-theological.

A clear distinction must certainly be drawn between knowledge of creaturely realities in the light of their created rationality, and knowledge of God in the light of his uncreated rationality. But the fundamental change in the foundations of knowledge does help considerably to clear the ground for a fresh reappropriation of the doctrine of the Holy Trinity not only for our knowledge and worship of God in his transcendent reality, but for the fact that all our knowledge of God's ways and works, and not least our knowledge of his saving activity in incarnation and atonement, ultimately reposes upon the eternal ground of his triune being as Father, Son and Holy Spirit.

5. One of the signal contributions of early Christian thought was the belief that *time* as well as space had been created out of nothing along with the whole universe, and was ceaselessly contingent upon the gracious will and love of God in the fulfilment of his creative purpose. This had the effect of demolishing the circular notion of time and the futile idea of a human existence endlessly returning upon itself. The doctrine of the incarnation in time and space of the eternal Son or Word of God by whom all things are made, together with the doctrine of the expiatory sacrifice of Christ on the cross and his triumph in resurrection over the powers of darkness and death, carry with them the truth of the *redemption of time*. The atonement was such a mighty act of God that it penetrated back through time in order to set us free by breaking the power of its guilt-laden irreversibility, and direct us into the future of a new creation. The time of fallen human existence is time that crumbles away into the past, but the time of the new creation in Christ

is one that moves forward in the opposite direction, redeemed from the shackles of the past.

This is a conception of time that conflicts with the view formulated in the second law of thermodynamics about the steady and ineluctable increase of disorder in the universe which determines the direction of the arrow of time. In its classical form, however, the second law of thermodynamics operates only in a closed system, and as such cannot account for the steady open-ended expansion of the universe in ever higher and richer patterns of order. And so a reformulation of the second law of thermodynamics has had to be found to apply to the open systems governed by an input of new energy, in which the direction of time is reversed - this is what Ilya Prigogine has called 'the redemption of time'. Whatever that may actually mean in physical terms, e.g. in the understanding of being in dynamic terms as becoming, it evidently breaks through the concept of a universe merely as a closed system of steadily increasing disorder, and opens the door for thinking in higher dimensions of increasing order. This is clearly much more congenial to the Christian conception of the redemption of time and the renewal of the all creation through the atoning death and resurrection of Jesus Christ, and of the new heaven and the new earth promised to us in the consummation of God's saving purpose.

All this raises acutely for us the question as to the bearing cosmology and eschatology may have on one another. That is not a question that theology can evade since it is around Jesus Christ crucified and risen that the whole universe revolves, thrust through as it has been by the axis of the incarnation. We cannot explore that now, but we may reflect a little further on the kind of time which we have to take into account. Because the Lord Jesus Christ not only died, rose again and ascended into heaven, but will come again to make all things new, the kind of time with which we are concerned in Christian faith and hope is not the time that passes away but the time that has been transformed and comes to us with an inbuilt future reference. We may not therefore without serious error read the temporal connections we have in our finite and fallen existence either backward into predestination or forward into eternal life, for we have to do here with the kind of transcendent time that characterises the life of God.

Let us not forget that although God was always Father he was not always Creator, so that the actual creation of the world was something new even for God; nor let us forget that the Son was not eternally incarnate, so that the incarnation was something new even for God. This means, astonishingly, that there is a 'before' and an 'after' in the uncreated time of God's eternal life, so that we must think of our created time as taken up in

the incarnation into God and as embraced within the transcendent time of his own eternal Life. This is something that exceeds the powers of our conception altogether. What we may do in theology, however, is to let all our thought of the past and of the future take its bearings from what has once and for all taken place in Christ Jesus who has transformed the past and given shape to the future within the saving and renewing embrace of the triune Life of God. We cannot but suspend judgement before the irrational mystery of iniquity, and its eternal judgement by God, but how much more is that the case here! Before the ineffable mystery of our eternal salvation through the crucified and enthroned Lamb of God, all theological analysis and reflection break off in wonder, adoration, thanksgiving and praise.

Nevertheless, since our actual ongoing existence in this empirical world has been penetrated by the incarnate Saviour and redeemed through union with his new humanity, we remember that we live here and now in the overlap between the old time of the fallen world and the new time of the risen Christ embraced in the eternal time of God's own Life. This is the kind of time we experience in the Eucharistic *parousia*. There is actually only one *parousia* which obtains between what we call the first and second Advents of Christ, and it is in the midst of that one *parousia* of him who is, was, and is to come, that we live day by day in Christ and have communion with him. It is highly significant that St Paul sometimes spoke of our being risen in Christ in the aorist tense, for in an all-important sense our resurrection has already taken place in Christ even though we wait on the plane of ongoing human history for the resurrection of the body which will take place when Christ comes again. Somehow the time of our resurrection in Christ here and now and the time of our bodily resurrection in the future are one and the same. This astonishing truth is something that we may helpfully consider in relation to what is called 'the relativity of simultaneity' put forward by Einstein in relativity theory according to which even in the physical universe the same event may well have two different 'real times'! That is certainly true of our resurrection in Christ: once for all and still to come. Such is the wonder of our real salvation in the one *parousia* that already in the time of this fallen world we participate by grace in the redeemed time of the new creation and even in the eternal Life of God himself. While this will always baffle our comprehension, it is sufficient for us to know that through the Communion of the Spirit we are already united to the Lord Jesus Christ, the First and Last, *Christus Salvator et Consummator*.

PRAYER ROTA

DAY

1	Peter Arvedson David Atkinson	17	David Peat John Polkinghorne
2	Garth Barber Howard Bateson	18	Michael Pragnell Freda Rajotte
3	Stephen Bellamy Michael Benton	19	Colin Richards Michael Roberts
4	Sjoerd Bonting John Brennan	20	Bill Rumball Bob Russell
5	David Brewin Tom Broadbent	21	Michael Saunders Robert Semeonoff
6	Geoffrey Calvert Cyril Challice	22	Kevin Sharpe Ursula Shone
7	Bernard Dagnall Phil Edwards	23	Michael Soulsby Helen Stacey
8	Peter Fulljames David Gosling	24	Derek Stanesby Barry Thompson
9	Tim Gouldstone Richard Hills	25	Alex Thomson John Throssell
10	Kevin Horswell Eric Jenkins	26	Geoff Turnock David Whiting
11	John Keggi John Kerr	27	Chris Wiltsher Roger Yates
12	Bill Knight Chris Knight	28	David Young Our Visitor, John Habgood
13	Peter Levitt Derek Leyland	29	Associate Members
14	Roland Moss Robert Nelson	30	SOSc in Canada and U.S.A.
15	Phillip Nixon Maureen Palmer	31	SOSc in Europe
16	Iain Paul Arthur Peacocke		