

Keith Roby Memorial Lecture
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‘Sustainability, Creativity and the Human Vocation’

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Thank you all very much for your welcome.

I echo your acknowledgment of country tonight, particularly in these tough days following the referendum.

My thanks to Catherine Baudains, Martin Brueckner, Michael Calvert and Kristin Warren for your helpful background and kind words tonight.

It is so good to have Cathie Roby and son Mark here with us. Thank you, Cathie for sharing memories with me.

My thanks, also, to Philip Jennings and the Keith Roby Memorial Lecture Committee for your patient and encouraging assistance, and to Treena Burgess and Kat Sambrooks, Catherine Burdains, and other staff of the Harry Butler Institute for your practical organisation. I understand that this is the first Keith Roby Memorial Lecture administered by this Institute and I appreciate your careful preparations. I never had the privilege of meeting Harry Butler but it is wonderful that a person so well known for his long and deep passion for wildlife and sustainability is now associated, via this lecture series, with Keith’s own pioneering role.

It is a privilege to be invited to give this lecture. As I sat down to prepare it, I found this book a wonderful reference. *Challenges for Einstein’s Children* was published as a tribute to Keith Roby following his death in 1981. Ian Barns’s biographical introduction, the extracts of Keith’s work, the tributes from his colleagues—these kept me on track and reminded me of the community I found here in 1980 and 1981.

Allow me to name members of the Murdoch community around Keith at that time. Peter Newman and Patsy Hallen were close key staff collaborators with Keith. Other staff in the circle were Philip Jennings, Kuruvilla Mathews, Horst Ruthrof, Michael Booth, John Webb, Tom Lyons and Allan Barton. Fellow postgrad students, who shared a research room with me and who became firm friends, were Ian Barns, Elva Chivilo and Kelvin Willoughby. I am very grateful to them all.

I am also grateful to my husband Geoff Alves for all his support, especially with the illustrations on the screen and his editorial advice.

My topic is ‘Sustainability, Creativity and the Human Vocation’. These are big concepts. I will address them by telling you a story about the word ‘sustainability’. This story will reveal glimpses of creativity at work and provide insights into our common human vocation.

1979—Skylab.

Skylab was the United States’ first space station. In 1979, after six years collecting data, it blazed into the world’s headlines. It had veered off course and was making an unpredictable journey towards earth. Fortunately, there were no astronauts on board. The question buzzed for weeks—where would Skylab land?

Meanwhile, hundreds of people from around the world were preparing to board more conventional forms of transport to converge on Boston. In the second week of July, they gathered for a global conference at MIT. It was organised by the World Council of Churches and its title was ‘Faith, Science and the Future’.

As the conference opened, the news broke that Skylab had disintegrated in a fiery explosion over Esperance. NASA and the locals scrambled to collect the space junk.

Skylab was not the only news that grabbed the world’s attention that week. Nuclear disarmament talks and the growing concern about an energy crisis were also in the headlines. Clearly, anxiety was growing about the fate of the world and its people. President Carter addressed the American nation regarding what he saw as a ‘moral and spiritual crisis’—a ‘crisis of confidence in the future’. So history conspired to throw into prominence the theme of that Boston conference—‘Faith, Science and the Future’.¹

Keith Roby was at that conference and so was I. It was there that Keith invited me to study under his supervision here at Murdoch University. A few years earlier, while I was studying chemistry at ANU, the nuclear debate had seeded my interest in science, technology and society. I was seeking a way to follow that interest. Keith’s quiet invitation struck a chord. I jumped at the chance to do an interdisciplinary honours year with Keith. Six months later I was here researching the WCC program that had laid the groundwork for the Faith, Science and the Future conference.

The title of that conference was actually shorthand for a much longer one—‘The Contribution of Science and Technology in the Struggle for a Just, Participatory and Sustainable Society’. There is that word again, ‘sustainable’. It is a word that we seem to hear every day. But fifty years ago, that was not the case. The story of its origins sits within the history of the World Council of Churches. It includes some of Keith’s life journey, and that of his mentor, Charles Birch.

Keith’s journey to the 1979 Boston conference began about twenty years earlier. When he finished high school, he left his hometown of Lithgow in rural NSW to study chemistry at the University of Sydney. He took up residence on campus at Wesley College. There he met Charles Birch, who was vice-master of the college and also the newly appointed Challis Professor of Biology at the university. Birch, an ecologist, became Keith’s mentor, especially in the holding together of scientific and theological enquiry.

¹ RL Shinn, ‘Introduction’, in RL Shinn (ed.), *Faith and Science in an Unjust World*, vol. 1, World Council of Churches, Geneva, 1980.

Birch was also at that WCC conference in 1979, twenty years later. Indeed, he was one of the main architects of the conference, its vice-moderator and a keynote speaker. Given his long association with Keith, it is no wonder that he was the first and, I imagine, the obvious choice to present the inaugural Keith Roby memorial lecture here in 1982.

In 2008, the year before Charles Birch died, he wrote his memoir, *Science and Soul*. It included stories of his own mentors, people who had influenced his view of life. It illustrates how his creativity was grounded in those critical friendships. Birch's was not a lonely journey.

Tonight, I want to suggest that true human creativity is grounded in healthy relationship. And more than that. These relationships embrace not only other people, they embrace the whole world and all its creatures, and they reach out to the ultimate, some say 'divine' mystery of the cosmos. This is the core of our calling to be truly human. It is at the core of the human vocation.

Birch first studied agriculture. Through his early research at the Waite Agricultural Research Institute in Adelaide he met his first mentor, Herbert Andrewartha, a pioneering ecologist.² From him, he learnt that science is not value-free and Birch began to focus his attention on the social responsibility of science and technology.³ His first research project was on grasshoppers. This was during World War 2 and his work helped to preserve the growing Australian wheat stockpile that could not be exported because of the war.

Birch said he was deeply indebted to Andrewartha for teaching him how to think. His supervisor challenged the young Birch's religious convictions, which at that stage were quite narrow. So, Birch was rattled. As he put it, he came to think his foundations were of sand. But he did not lose his faith. Rather, his search for meaning deepened and he turned his critical mind to the interface between science and theology. He found more mentors in Adelaide in the Australian Student Christian Movement (the SCM), which was active on university campuses across the country. There he embraced a more liberal view of Christianity, one that was more open to questioning and exploration.⁴

Andrewartha gave Birch the gifts of respect and friendship. He regularly went with him to SCM discussions on social and political issues. The two men had a long and collaborative relationship. They continued to disagree about theology but it was with Andrewartha that Birch honed his ecological thinking. In 1984, not long before his mentor died, they co-authored the book *The Ecological Web*.⁵

² TCR White, 'Andrewartha, Herbert George (Andy) (1907–1992)', *Australian Dictionary of Biography*, National Centre of Biography, Australian National University, <https://adb.anu.edu.au/biography/andrewartha-herbert-george-andy-15425/text26638>, published online 2016, accessed online 18 September 2023.

³ M Brown, 'Birch, Louis Charles (1918–2009)', *Obituaries Australia*, National Centre of Biography, Australian National University, <https://oa.anu.edu.au/obituary/birch-louis-charles-16919/text28807>, accessed 18 September 2023.

⁴ C Birch, *Science and Soul*, UNSW Press, Sydney, 2008, pp. 52–54.

⁵ White.

Through the SCM, Birch was introduced to the writing of AN Whitehead and especially his 1926 book *Science and the Modern World*. This was Birch's introduction to process philosophy and he said, 'I felt this book was written just for me.' He soon became a strong proponent of process philosophy and its cousin, process theology.

Whitehead planted in Birch the thought: 'God is not *before* all creation but *with* all creation.'⁶ Over the next six decades, Birch carried that thought forward in many lectures and books. A few quotes:

'Nature and all creatures are imbued with intrinsic value, and demonstrate the personality of a creator God who is constantly involved in the process of creation.'⁷

'There is an ecology of God as well as an ecology of the world.'

'We are not alone. In the ecological view the universe feels God in its creative advance. And God feels the universe in its joy and its agony as it evolves. God not only gives love but God is responsive to love because God is love.'⁸

After World War 2, Birch moved to the University of Chicago. There he found two more mentors, Sewall Wright, an evolutionary biologist, and Charles Hartshorne, a professor in the Department of Philosophy and the Divinity School. Both were 'Whiteheadians', strongly influenced by process thought. Birch had found his science and theology community and said, 'I was torn between my ecology in the Department of Zoology and sitting in on courses in the Divinity School.'

Birch carried this passion for science and theology, and for process thought in particular, with him when he joined the teaching staff of the University of Sydney in 1948. Keith Roby arrived there a bit over a decade later. By this time, Birch was attracting large crowds of students to his lunchtime lectures. He was an especially strong influence on the university's SCM branch, which Keith soon joined and later became its branch president.

As Birch had in his student days, Keith relished the freedom of the SCM as a place to bring questions to all spheres of enquiry. When, in 1964, he moved to Monash University to do a PhD in theoretical chemistry, he continued as an advisor and lunchtime speaker for the branch there. Keith saw no contradiction in bringing both theology and science to his quest for understanding the wonders of the cosmos and, like his mentor, he too shared this enthusiasm with the next generation.

Keith met Cathie in Melbourne. Cathie too had joined the SCM—when she was a student in arts and social studies at The University of Melbourne. They married in 1966.

Once Keith completed his PhD they moved to the USA for Keith to take up a postdoctoral fellowship in chemistry at Yale University. But he had a second reason to be there—to be

⁶ C Birch, 'Creation, Technology and Human Survival: Called to Replenish the Earth'. *The Ecumenical Review*, vol.28, no. 1, 1976, pp. 66–79.

⁷ *ibid.*

⁸ C. Birch, 'Nature, Humanity and God in Ecological Perspective', in RL Shinn, *op. cit.*, p. 71.

a research fellow in the Yale Divinity School.⁹ Keith's scientific team leader at Yale, Oktay Sinanoglu, was not overly impressed by Keith's decision to pursue theology as well as science. However that did not stop Keith making himself quite at home at the Divinity School library, delving into the work of Whitehead and others who spoke to his theological questioning. So, just as Birch combined science and theology in Chicago, so did Keith at Yale.

The Robys lived in the USA from 1968 to 1970, a period of political turmoil. It was there that their son, Mark, was born.

Now some ecumenical history is in order here. The SCM is part of a broad ecumenical movement. The word 'ecumenical' comes from the Greek *oikoumene* which means 'the whole inhabited world'. It refers to the search for unity among divided churches as well as unity and peace in the whole world. (The word 'ecology' comes from a similar root *oikos* meaning 'home' or 'place to live'.)

The Australian SCM has been a member of a global body, the World Student Christian Federation (WSCF), since 1896. The WSCF was a pioneer of the ecumenical movement and its leaders were instrumental in the formation of the World Council of Churches just after World War 2, in 1948.

This new council brought together in membership Orthodox and Protestant churches from around the world. The Roman Catholic Church did not join but its representatives regularly participated in the meetings and programs of the new body. Buddhist and Muslim guests also attended from time to time.

Today, the World Council of Churches is the most well-known expression of the ecumenical movement. I will refer to it now as the WCC.

The early WCC adopted a method to assist churches to understand and address social issues. This method came to be known as the Oldham method, in recognition of its instigator, JH Oldham, a layperson from Scotland. Basically it involved:

- gathering people who can best help the churches to understand the nature of a crisis in society
- arriving at a definition of the fundamental issues
- following an interdisciplinary approach to these issues
- and then presenting the results to the churches for study and action.¹⁰

Paul Abrecht, an economist and theologian, was appointed to guide the work of the WCC's Church and Society department in 1949. He was to follow and develop Oldham's method in imaginative ways until 1983.

⁹ G Chandler, in I Barns (ed), *Challenges for Einstein's Children*, Murdoch University, Murdoch, 1984, p. 194.

¹⁰W Visser't Hooft, 'Oldham's Method in Abrecht's Hands' *Ecumenical Review*, vol.37, no. 1. 1985, pp. 3-4.

Until the 1960s, the WCC focused mainly on the social sciences, giving serious attention in the post-war years to the plight of the world's poor, refugees and to patterns of injustice. Oldham, in a letter to the WSCF in 1961 stressed that the WCC should have given attention to the significance of science and technology right from its inception. He pointed to the continuing 'great gap' in the understanding of the churches in this regard.¹¹

The WCC did finally pay attention. In 1966, a WCC conference, organised by Abrecht, gathered in Geneva around the theme 'Christians in the Technical and Social Revolutions of our Time'. However very few scientists were present. The gathering was largely church leaders and lay people, and social scientists. The anthropologist, Margaret Mead was among one of the few women present.

Two years later, in 1968, the full assembly of the hundreds of member churches of the WCC met. There, Margaret Mead made an impassioned speech to that assembly. She said that 'it was absurd for the WCC not to have a program on the huge impact of science and technology on society. She won her argument'.¹²

The churches acknowledged that more and greater attention was needed to science and technology, and with the help of more scientists. The churches established an ongoing study program called, 'The Future of Man and Society in a World of Science-Based Technology'. (You may notice that inclusive language had yet to catch on back then.) Mead was to play a critical part in the leadership of the ongoing program.

In his memoir, Charles Birch named Margaret Mead as one of his mentors, saying that her influence swayed the WCC into taking science and technology in relation to the future of humanity seriously.¹³ Apparently, she didn't enjoy the formal seating of large meetings and called people to form a circle, where possible. Birch quoted her as saying, 'Never doubt what a small group of thoughtful committee citizens can do to change the world. Indeed, it is the only thing that ever has.'

According to Abrecht, the time was ripe in the late 1960's for the study program because of three factors:

- the growing awareness of the stupendous expansion of the physical sciences and their impact on the social situation;
- the greater measure of interdisciplinary understanding between the physical and social sciences;
- and the new awakening of the physical scientists to the social and human consequences of their work"¹⁴

¹¹ J Oldham, in D Gill, *From Here to Where?*, World Council of Churches, Geneva, 1970, footnote p.11.

¹² Birch, *Science and Soul*, op.cit., p.106.

¹³ Birch, *Science and Soul*, op cit pp. 106-107.

¹⁴ P. Abrecht, 'The Ecumenical Obligation to Think About the Future of Man and Society in Light of the Technological Revolution', *Study Encounter*, vol 6, no 2, 1970.

Another factor could be added to this list. David Gill, an SCM friend of both of Keith Roby and Charles Birch from Sydney days, served on the staff of this new WCC program. He commented about the readiness of scientists and people of faith to ‘demolish the wall of separation between the church and the laboratory’¹⁵ that had built up in the preceding century.

Gill kept Keith up to date with developments with the new program. He also suggested to Paul Abrecht that Charles Birch be invited to an initial exploratory conference of 100 experts from six continents. Birch accepted.

This time a large group of scientists gathered in Geneva in 1970 for a world conference called ‘Technology, Faith and the Future of Man’. It helped set the agenda and process for the study program and discussed issues of ecology, biology, industry and urbanisation, computers and theological issues. The ecumenical engagement with science and technology was well and truly launched.

For the next fourteen years, Birch was to provide leadership that was recognised as exceptional.¹⁶ During that time, the new ecumenical work was documented in great detail in the WCC journal *Anticipation*. Keith Roby’s collection, one of a very few in Australia, is kept here in the Murdoch University library, along with other items from his personal library.

It was also in 1970 that the Robys returned from Yale for Keith to take up a research fellowship at ANU. They travelled via Geneva so that Keith could find out more about the new WCC program. Cathie and Keith carried their growing enthusiasm for social change and community involvement home to Australia with them. Cathie focused on issues of welfare and poverty while Keith joined the Society for Social Responsibility in Science and the ALP finding ways to pursue his growing interest in energy and conservation¹⁷. He continued to follow the work of the WCC with interest.

The young Roby family expanded in Canberra with the birth of Karina.

In 1971, a WCC working committee, including Birch and Mead, met with some key thinkers to clarify key issues for attention. British economist, EF Schumacher, the proponent of small-scale appropriate technology, was among them and shared his work-in-progress of his book *Small is Beautiful*.

Margaret Mead was particularly pleased that a number of younger people were invited. They included twenty-six-year-old Jørgen Randers of the Club of Rome. He shared the draft of the Club’s report, *The Limits to Growth*, which he co-authored. His preview included alarming graphs illustrating projected population growth and resource depletion.

That meeting was instrumental in identifying the urgency of protecting the health of the earth’s ecosystems. Spurred by the knowledge that the finiteness of the world’s resources would exacerbate gross inequality and end in environmental collapse, the WCC carried the message to a plethora of regional meetings and thematic consultations that ran until

¹⁵ D. Gill, *From Here to Where?*, World Council of Churches, Geneva, 1970, p. 12.

¹⁶ W Visser’t Hooft, op cit, p3.

¹⁷ I Barns, ‘Introduction’ in I Barns *Challenges for Einsteins Children*, Murdoch University, Murdoch, 1984, pp. 5–6.

1975. This process was designed to increase the diversity of participation. It included another world conference, in Bucharest, in 1974.

Keith, holding together his scientific and ecumenical interests, travelled from Canberra to attend a theoretical chemistry conference in Canada and also this ecumenical conference in Bucharest. This heralded his active hands-on involvement with the WCC's work.

The Bucharest conference was a critical turning point. Its theme is telling: 'Science and Technology for Human Development: The Ambiguous Future—and the Christian Hope'. Controversy had been growing through the various meetings and consultations. The call for global justice and the call to protect the environment were sitting uneasily together. There was heated debate between delegates from so-called 'first world' and 'third world' countries about the apparent conflict between the struggle for justice and the need for the world's people to live within limits to growth.

It was in Bucharest that the concept of 'ecological sustainability' began to bridge this divide. Birch tells the story in his memoir:

'Randers [from the Club of Rome] and I were conducting a workshop on 'limits to growth'. The workshop was not getting anywhere with third-world delegates saying, "Don't talk to us about limits to growth. What we need is to grow as the rich nations have grown." At a coffee break Randers said to me that we had to find some phrase other than "limits to growth" that was positive in its impact. He made a number of suggestions and then said, "What about 'ecologically sustainable society'?" When we put that to the workshop, they all said of course we want an ecologically sustainable society. The concept was accepted by the full conference and sped around the world like wildfire.'¹⁸

The conference report, published in *Anticipation* documents this development.¹⁹ It describes 'A long-term concept of a sustainable and just society' characterised by:

- distribution of scarce resources equitably and based on participation in decision-making
- enough food for all
- pollutants restricted to the earth's capacity to absorb them, and
- the minimisation of the use of non-renewable resources.

Numerous recommendations followed. These included one calling on the WCC to sponsor studies on:

- a 'sustainable and just society'
- another on 'theological implications of a sustainable and just society', and
- another calling for 'an ecumenical dialogue between theology and science'.

Keith's own copy of the report is peppered with his annotations.

Before 1974 was over, Birch and Keith each received significant invitations. Birch joined the network of experts of the Club of Rome. Keith was appointed to the foundation staff of Murdoch University. The Roby family settled in to their new life in Perth soon after.

Over the next five years, Keith and Birch each deepened his involvement with the WCC.

¹⁸ Birch, *Science and Soul*, p. 106-7

¹⁹ *Anticipation*, vol. 19, pp12–13.

In 1975, Birch carried the message of sustainability to the next full Assembly of the WCC, which is remembered for his keynote speech, 'Creation, Technology and Human Survival' with the subtitle 'Called to Replenish the Earth'. He spoke eloquently of the threat to the world's ecosystems and to human societies and the urgency for a global response. He said:

'For a biologist there is nothing new in the concept of a sustainable society ... Nature's global society is a sustainable society ... The real world consists of sustainable societies within the great sustainable biosphere ... I learn from them ... And I learn how easy it is for man to make them unsustainable ... If the life of the world is to be sustained and renewed ... it will have to be with a new sort of science and technology governed by a new sort of economics and politics.'²⁰

The churches responded strongly by extending the program even further, with the theme — 'The Contribution of Faith, Science and Technology in the Struggle for a Just, Participatory and Sustainable Society'.

The inclusion of 'participatory' alongside 'just' and 'sustainable' indicated the commitment of the WCC to make its discussions as inclusive as possible. Seeking unity in diversity had been central to the ecumenical movement since its beginning. This new stage of the WCC's work was to achieve the largest, widest and most diverse participation so far, but it was still far from perfect. So, the inclusion of the term 'participatory' was a constant reminder that societies could be neither just nor sustainable without the active involvement of a wide diversity of people in consultative and decision-making processes, including in science and technology policy.

Keith carried the just, participatory and sustainable society as a guiding vision into his writing and teaching at Murdoch. He focused his mind on developing his own vision of a research strand called Community Science, which he described as 'that portion of the scientific effort directed explicitly and primarily towards human fulfilment, social well-being and the resolution of critical contemporary issues within the context of a just and sustainable society.'²¹

He put his community science into practice right here in WA. He gave his time and talents to public speaking, supporting the work of Community Aid Abroad and advising the ALP on energy policy. Local Quakers Lawrie and Nancy Wilkinson, who Keith and Cathie had first met in Canberra, were enthused by the vision of JPSS and Keith's work in particular. They later made large donations, including their farm, to further the vision and the work. The result was the Oikoumene Foundation (named for 'ecumenical') and the National Council of Churches in Australia Glenburnie Program (named for their farm). These funds continue to support community projects consistent with the JPSS vision, for example the Australian Religious Response to Climate Change.

Keith paired his pioneering work at Murdoch University with assisting with the preparations for the WCC's 1979 Boston conference. For example, he was instrumental in developing the Energy and Life Systems Program at Murdoch while co-authoring a

²⁰ C. Birch, 'Creation, Technology and Human Survival', *Ecumenical review*, vol 28, no. 1, p. 73.

²¹ K Roby, in I Barns, *Challenges for Einsteins Children*, Murdoch University, Murdoch, 1984, p76

booklet 'Energy for my Neighbour' for the WCC, which offered practical ways for churches to save energy and to assist renewable energy projects in third world countries.

Cathie, Mark and Karina accompanied Keith overseas on study leave in 1978 to 1979. They first visited Kenya and Tanzania, where Keith familiarised himself with appropriate technology projects. The family then settled in Geneva for some months. While the children kept up with their schooling with Cathie's help, Keith volunteered as a member of the editorial committee preparing the book of preparatory readings for the Boston conference.²² He wrote the chapter that provided 'The Argument for Emphasising Renewable Energy Sources'.²³

So to the 1979 conference in Boston.

It was two weeks long. It was huge. It was originally planned for 350 people but was expanded to 900 from about 60 countries, due to the great interest it generated. Of these about 400 were nominated by churches. Of those 400, about half were scientists and technologists. The other half were church leaders, social scientists, theologians and some from business and industry. About 90 of the 400 were science students and recent graduates. There were also consultants, staff, young stewards, a media contingent of 150 and about 200 members of the public.

The breadth of discussions as captured in the report was amazing.

Keith was co-opted as a staff member specifically for the section 'Energy for the Future'. He was particularly active in facilitating the recommendations regarding energy, which was the most contentious theme of the conference. A main plenary speaker was David Rose, professor of nuclear engineering at MIT, who warned that atmospheric carbon dioxide could double within two generations with an average warming of 1 and 5 degrees, more in polar regions. He said that the first and most difficult task would be to make people all over the world aware of the problem.

I was among the young science students and recent graduates who met for a few additional days prior to the full conference in our own gathering. Much of our time was spent in the small circles that Margaret Mead yearned for, in spirited discussion. Life-time friendships were formed. A small working group of women science students was later the stimulus for an ongoing women's group in the large conference.

The Boston conference was extraordinary and, for me, life-changing. It was a pinnacle of Keith's life too—it brought together his broad interests, wide connections and the expression of his talents.

Sadly, less than a year later, the melanoma that Keith had been living and dealing with for some years, moved to his brain. But his commitment to his work and to his students never wavered. By the time I finished my honours program with him, his sight was failing. He found a way around that. He listened to an audiotape of my final draft. After my degree was awarded in 1981, he encouraged me to continue on with him towards a PhD. I did enrol at Murdoch but, when Keith died soon after, my life took another course. I

²² P Abrecht, *Faith, Science and the Future*, World Council of Churches, Geneva, 1978.

²³ I Barns, *op.cit.*, p. 6.

carried what I had learnt into what was to become a long career in the ecumenical movement.

Twenty years after the Boston conference, in 1999, I enrolled afresh for a PhD, this time in the School of Theology of Charles Sturt University in Canberra. When I came to write a research proposal, I found that the seeds that Keith had planted in my thinking took root. My topic was 'Towards a Theology of Technology'. It brought together philosophy of technology, theology of creation and a theological study of community. This led me to probe how we might understand true human creativity in the context of today's technological culture.

In 1967, just before Keith went to Yale, Lynn White Jr had published an article in *Science* titled 'The Historical Roots of our Ecological Crisis'. In it, he blamed the Christian theology of creation for humankind's destructive exploitation of the earth. He maintained that this theology had been used as a rationale for human beings to assume a domineering role over the rest of nature, a role exercised through science and technology.

Churches were thereby challenged to re-examine the theology of creation, especially in regard to the particular role, the vocation indeed, of humankind. The Bucharest conference said:

'The ecological crisis, the relation of world resources to social justice and the threat to human existence—all these warnings challenge us as Christians to rethink what we mean when we confess that the universe is God's creation. We are passing from an attitude of power, of mastery over creation, to one where we need to participate in, live within its midst, hold it in respect...That is exactly why we feel so strongly the need of confessing a theology of creation...The trinity as an archetype...may stimulate [this]. Trinity means communion, participation in one and the same life. Trinity also means diversity, distinction, not, however, separation.'²⁴

So, the story of the WCC's arrival at the term 'sustainability' is also a theological story. It is a story of the churches seriously re-examining the theology of creation.

This re-examination continues to this day. A major school of theological thought is that the theology of creation is profoundly relational. This is clearly evident, for example, in the 2015 encyclical letter *Laudato Si'* of Pope Francis, in which he speaks of the importance of 'relationships... of human persons...in communion with God, with others and with all creatures.'²⁵ This theology suggests that the relationality, which embraces all creatures and things in an ecological web, is found in the heart of God, the source of all that exists. Creation is understood as relational and continuous, an ongoing activity in which we, human beings, are called to participate, as co-creators.

Our human calling, then, is not to exploit or control the world as a store of resources to be consumed, but instead to nurture loving and life-giving ecological relationships. This requires that our actions respect the interrelatedness, the ecology, of God and all creation.

²⁴ *Anticipation*, op.cit.p. 35.

²⁵ Pope Francis, *On Care for Our Common Home: Encyclical Letter Laudato Si'*, Vatican Press, 2015, para. 240.

These are not just any sort of relationships, but relationships that have the quality of the loving communion that is at the heart of God. This is the essence of community, the community in which Keith yearned to embed science and technology. There is no place here for exploitation or disrespect. True community is marked by attributes of recognition and respect. Whenever our culture ignores or denies this, we fail to be creative and we fail to live our human vocation.

True creativity, then, our vocation as human beings, arises from loving community.

In this way, we can be inspired to imagine and work for a better future—a just, participatory and sustainable world. Justice grounded in love for our neighbours, and participation expressed in loving community, can nurture and replenish ecological sustainability.

Keith cared for the world and sought to understand it through both science and theology. He brought these talents to interdisciplinary and ecumenical engagement with many others.

He placed his work in the context and in the service of loving community.

He embraced the vision of a world of ecological sustainability upheld by loving justice and vibrant participation.

Keith Roby lived his human vocation.

His life was truly creative.

Keith died young and is sorely missed. His legacy lives on through the many people fortunate enough to be touched and influenced by him. They are found in the pages of *Challenges for Einstein's Children*. They are found in the reports of WCC meetings he attended. They are found among his students. They are found in his family and his global networks of friends.

I conclude with Keith's own words:

'When all is said and done, our understanding itself always stands incomplete and must always continue to evolve in creative advance. There is always wonder and mystery for those with eyes to see.'²⁶

Thank you for coming tonight and for listening.

²⁶ K Roby, 'Science, Technology and World-Views', in I Barns, *Challenges for Einsteins Children*, Murdoch University, Murdoch, 1984, p. 38.