



Sea of Faith NETWORK N.Z.

CONFERENCE 2005

Newsletter Supplement

This Supplement contains abbreviated versions of major addresses from the Conference.

In some cases the full or abbreviated address can be found on our website at www.sof.org.nz

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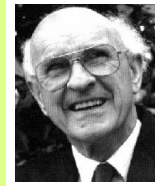
By one who chaired it.

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How is Science Related to the Judeo-Christian Tradition?

Lloyd Geering



These are excerpts from the paper which Lloyd Geering delivered at the Conference and which was a itself shortened version of one which he had delivered as the 2004 Hudson Lecture to the Wellington Branch of the Royal Society. The subheadings and illustrations were offered by the editor.

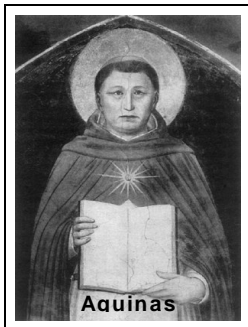
Tension

The traditional Christian world-view, long shaped by the influence of Plato and Augustine, came under serious threat as Aristotle's philosophy of the natural world set the newly established universities of Europe in a turmoil. From then onwards it was going to be impossible for theologians to ignore the natural world.

Synthesis

It fell to Albertus, followed by Thomas Aquinas, to resolve the tension; this they did by synthesizing the traditional Christian doctrines with Aristotle's philosophy of the natural world. I suspect that they were responsible for inventing the mediaeval Latin term *supernaturalis*. Aquinas distinguished between natural truth and supernatural truth. Natural truth is the truth about the natural world, arrived at by observation and reasoned speculation. Supernatural truth, however, is beyond human discovery and can be received only by divine revelation.

Perhaps the last person to attempt to expound all knowledge as a unity was Thomas Aquinas, when he set out ... to reconcile Aristotle's philosophy of nature with what was assumed to be the truth received by divine revelation. This he did in his renowned *Summa Theologica*, which he did not live to finish.



Division

Let us observe what happened when his attempted synthesis broke down under the influence of nominalism. In direct opposition to the realists, the nominalists contended that the only things that really

exist are the particular things that *exemplify* the universals. The universals, they said, are simply concepts or names (nomina), which have been invented by the human mind after reflecting on the particular objects observed. Nominalism opened the way for the rise of empirical science and the explosion of academic disciplines in modern times [which] fall into two main groups: the physical sciences study the natural world, while the social sciences and the arts study humanity and culture. These two groups, in effect, have now replaced the theology faculty that sufficed in the twelfth century, when simple monotheism was universally accepted. What is more, by the middle of the twentieth century there was such an evident rift between these two groups that the scientist and novelist C. P. Snow wrote some widely read novels deploring what he judged to be the bifurcation of society into 'two cultures' that no longer understood each other. It was this rift that came to expression in the so-called war between religion and science, referred to at the beginning.

Reconciliation/Co-existence

By the end of the century the rift was being partially healed by a growing mutual respect among scholars of different fields. It is noticeable that monotheism has left its traces among some scientists. Even though they may regard themselves as atheists and agnostics, they unexpectedly call upon the term God. 'God does not play at dice', said Einstein. The physicist Paul Davies has entitled two of his books *God and the New Physics* and *The Mind of God*. It is also reflected in the search by theoretical scientists' such as Stephen Hawking, for what they call the 'Theory of Everything'; by this they expect to unify the four basic physical forces they have now isolated.

Christian monotheism, of course, had long served as just such a theory. God has long been appealed to as the one whose power and purpose explained everything. But it was a metaphysical theory and that kind of metaphysics has become obsolete. The search for 'The Theory of Everything' is its scientific replacement.

The Deconstruction of God

The way in which the *Summa Theologiae* of Aquinas broke into the two streams of science and arts may be further illustrated by reference to two books by Feuerbach.

In his first book, *The Essence of Christianity*, (1841), Feuerbach contended that we humans have unconsciously projected into the concept of God all our highest human values for which we have the potential. 'God' this consists of the essence of humanity at its best. And the essence of Christianity, as he saw it, was to be found in the doctrine of the incarnation by which these values, i.e. God, were to become enfleshed in humanity, where they properly belonged.

Later Feuerbach wrote a second book, *The Essence of Religion*, which unfortunately never received the public attention of the first one. In it he pointed



out that since his first book had dealt only with the moral and personal attributes of God, more remained to be said. When viewed as the creator and controller of the natural world, God had taken over the functions of the earlier gods of nature; accordingly, the monotheistic image of God also embodied what Feuerbach called the 'personified essence of nature'.

It is important to see what Feuerbach had thus done. He had deconstructed the God concept into two quite different orders of reality: the world of nature (as emphasized by the pantheists and deists) and the collection of supreme human values (as emphasized by the theists). As Feuerbach saw it, God was the projection of both the essence of nature and the essence of humanity – and therefore the monotheistic God had long served as the way to understand both the natural world and the human condition.

The Children of Theology

Now if theology means the study of God, then Feuerbach's deconstruction of God has effectively resolved theology into two complementary areas – the study of nature on the one hand and the study of humanity and its values on the other. Thus, as we trace the history of the university from the time of Aquinas until now we can see that both the sciences and the humanities began as provinces of theology.



THERE'S ALWAYS MORE — ON THE WEB

Rachael Kohn:

You can *read* transcripts of her radio programmes, *listen* to the programmes in streaming audio, *download* the programmes as mp3 files or as podcasts — by going to <http://abc.net.au/rn/relig/spirit/> Rachael's personal website is at <http://RachaelKohn.com>

Jonathan Mane-Wheoki:

He is Director of Art and Visual Culture at Te Papa Tongarewa, The Museum of New Zealand. Explore its many offerings at www.tepapa.govt.nz

Richard Hall:

He is President of The Phoenix Astronomical Society and Project Manager of Stonehenge Aotearoa. This is a new version of Stonehenge which is appropriate to the southern hemisphere and well worth visiting in person. Read about it at www.astronomynz.org.nz/stonehenge/stonehenge.htm

Lloyd Geering:

He has been Lecturer-in-Residence at St Andrews on The Terrace in Wellington for more than 20 years. Many of his addresses are available in book or audio tape form. Visit www.standrews.org.nz/satrs/ and read "Publications for Sale".

The End of Civilization and the Possible Dawn of a New World Religion

Alan Webster

*A paper prepared for the National Sea of Faith Conference, held at St Andrew's College, Christchurch, September 23-25th, 2005. Edited for space reasons: large omissions are indicated by '***' and small omissions by '...'. The full text is available on the website at www.sof.org.nz*

... This is a down-to-earth paper, guided by a view of spirituality utterly alien to super-naturalistic theism. My definition is:

Spirituality is all elevated awareness of constructive in-the-world possibilities, realised in choice, informed by an ethic of compassion and expressed in deliberative action.

The global ecosystem is at a 'tipping point' and oil, the critical resource for our way of life, is already on an irretrievable downward trend. Cheap oil has gone for ever. Climate change threatens global weather and biosphere catastrophe. Population increase and unsupportable consumption combine to make looming emergency the reality of the 21st Century. No-one knows what will prevent eco-disaster. Some speak of a planet of "the insects and the grasses." (Crossan and Reid). Inequity threatens stability everywhere.

I invite you to think with me about the question: What does the global crisis say to the desire to create a religion or faith for a different future?

Why do we find ourselves, after 10,000 years of inventing civilisation, in such a parlous state? Some say it's not that we have failed to progress, but that we've progressed too much, or in mistaken ways. This is what the brilliant BBC lecturer on progress in civilization, Ronald Wright, believes. Wright's book *A Short History of Progress*, provides a gloomy analysis and prognosis of the perilous experiment of civilisation.

There is a human role in these developments. Western culture assumes progress, or a pattern of directional change. Science and industry gave rise to this unilateral progress. As myth and ideology, science and industry are unfortunately so abstracted from morality and tradition that they assume an engrossing role in our total relations with the world. This is science as

myth and ideology. Whatever science can do and wants to do is self-directing and self-justifying. This myth of progress has been valuable, but it can become dangerous. We have become victims of our own success. Our success has endowed us with the power to make ourselves and to destroy ourselves.

Progress proceeds in pragmatic phases. Each phase succeeded in meeting urgent necessity and in improving its lot, but thereby constituted its own trap: The hunting trap was that of killing off the host. Farming was an enduring success: it has been the salvation of the human species. But there was a farming trap: farming often exhausted the soil and in any case succeeded only when the climate was suitable, ie it did not develop until after the last Ice Age. Climate change has been its nemesis over the centuries. Ice-Age or climate change will no doubt see out our brief moment, but as a result of human actions. Historically, farming has exploited the land beyond its natural capacity, failing to adapt in face of clear evidence. Thus, soil exhaustion, cashcropping, over-riding the primitive fallow principle, clear-felling of forests and thus spilling desstructive floods upon the topsoils, draining of natural water sources and of wetlands, and ignorance of the Gaia principle of the integrity of the forest. The gross condition in the world is that of human disruption and chemical poisoning of the global climate, the biosphere and the ozone layer.

There is no documentation of the specific effects of human disruption of the global climate. Nor could there be. We do not know until it is too late. Wright uses the term "The Fools' Paradise" to refer to certain famous experiments. Some have been irrecoverable.

Examples are: Easter Island: well-known for its total destruction of trees, ... the rise and decline of Iraq, or Sumer, or Southern Mesopotamia. They adopted a massive

method of controlling water which led to salinization such that a fertile plain of 4000 to 5000 years ago is now and has been for centuries, desert and scrub, fit only for goats. ... And then, less dramatic, their civilizations a shadow of former glory, the fall of Rome and of Egypt. Rome worshipped the god of war, imposed fealty to him and organised around conquest, taking from others; while Egypt practiced a culture of death, neglecting the principles of life ...

* * *

Most surprising, perhaps, is the conclusion about the worldwide economic effect of the colonization of the Americas from the 1500s. The precolonial Americas, South, Middle and North, sustained over 20 million people through viable hunting, gathering, agriculture and horticulture. Had it not been for the resulting great wealth, appropriated by the European colonisers, their wealth would not have progressed so far or so quickly.

* * *

How then did progress bring us to ruin? The answer, oddly, seems to be optimism usually seen as the key to progress. It is a huge irony: the very optimism which generates progress is its own trap. So this was the Civilization Trap: Wright argues that we are doomed by hope! Hope, he says, drives us to believe empty promises, whether in the public or political domain or in private life to accept slim hope over prudence and reasoned probability. It is hope, or greed, states Wright, that is the engine of capitalism thus referring to the two-edged weapon of progress. Capitalists hate socialists, because the true socialist insists on a full, value-embedded account of how the vision will be made to serve justice and sufficiency for all. It's the intrusion of human values that enrages the capitalist. ...

To socialism, the heart of progress is a deeply felt empathy for the struggling of the world and for the world in its struggle, its scarcity. Capitalists, however, are not responding to scarcity and thus have a different sense of justice. The justice of the capitalist is a fundamentalist sense of entitlement, a simple belief in the sovereign right of the individual to exploit opportunity. At the core of it is an ideology of Exceptionality whether of the individual or the nation. To them, the most profound philosophical truth is that you can't have

welfare without a strong economy. This will always justify putting profit first. The people as such are not legitimate participants. They must be satisfied with as little as possible. Nothing should limit the priority of the capitalist deity, profit. The justice of the socialist collective, by contrast, is the people's equal right to a sufficiency.

To the greedy of the world, their individual desire is a sacred right. This is the core of the Protestant ethic. The individual is the sacred entity, gifted with plenty by God. Socialism denies that the individual is the true political entity: the true political entity is the body of the people. The people's voice.

It is the voice of capitalism which has led to destruction of civilization in the name of free enterprise. Raw capitalism is a contradiction of life's own ecology.

Conclusion

* * *

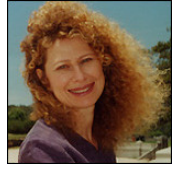
The incisive logic of Wright's analysis is that it is the forces of progress as myth and ideology which have led historically to non-viable human civilizations.

And only a communally-minded world can do what's required to solve the causes of violence, defined as injustice, poverty and inequality. The most stark indicator of incipient violence is unsustainable consumption. Wright notes that humans are consuming 125% of nature's yearly output. In ideological terms, the home-base of violence is market extremism. Its new form is the morphing of market ideology with traditional religion. As Wright puts it, in the USA, "the market has crossbred with evangelical messianism to fight intelligent policy on metaphysical grounds."

He goes on to conclude: "The most compelling reason for reforming our system is that the system is in no-one's interest." (p131) "If we don't share resources, clean up pollution, dispense basic health and birth control and set limits in line with natural ones ... this planet will not grow very old before we enter an age of chaos and collapse that will dwarf all the dark ages in our past." (p 132).



A *Bullet-point Summary of*



THE RISE OF SCI-RELIGION

or When Religion Became Science

An address by Dr Rachael Kohn to the Annual Conference of
The Sea of Faith Network (NZ) on 24 September 2005, in Christchurch

Introduction

- science pursues ‘evidence-based knowledge’
- some scientists exhibit a religious zeal
- but most scientists have practical concerns

Preface

- since the early 19th century, science has held out promises of progress on many fronts
- Newton and Einstein could still invoke ‘God’

Medicine and Beyond

- practical improvements in medicine were slow but many movements grew from it
- Christian Science
 - Mary Baker Eddy invented Christian Science, with the Bible as a medical manual
 - she asserted a beneficial connection between faith and health
 - salvation is evident by signs of health
 - ‘Jewish Science’, in imitation, came and went in the 1930s
- **Seventh Day Adventists** with similar beliefs
- **Theosophical Society**
 - Madame Blavatsky
 - offered ‘theosophy’ as freedom from religion
 - drew on an eclectic range of sources
 - blended science and spiritualism and mediumship
 - preached ‘Higher Truth’
 - humankind descended from angels not ascended from apes
 - has left an ongoing legacy of ‘free thought’
 - both science and religion have mystery
- **Steiner Schools**
 - Rudolf Steiner (1861-1925)
 - established Anthroposophy — a ‘spiritual science’
 - spiritual exercises to accelerate evolution

- spiritual events conform to spiritual laws
- seeks to attain the power of the gods
- **Gurdjieff**
 - spiritual exercises to reach a higher plane
- **Scientology**
 - L. Ron Hubbard
 - spirituality can be made scientific
 - ‘science’ is now overshadowing ‘spirituality’
 - offers ‘effectiveness’ and ‘power’ in life
 - no discernible ‘just society’ or similar

The Psyche

- For Freud, religion was a neurosis
- Buddhism is empirical therapy
- Neurotheology
 - materialist explanation of religion
 - religious feelings are scientifically verifiable
 - not concerned with beliefs and dogmas but with scientific endorsement

Off The Planet

- Raelians: founder claims to be product of a union between Yahweh and his mother
- cloning to produce immortality

Quantum Physics and Beyond

- ‘everything is a vast playground of quantum uncertainty
- Quantum Spirituality is a licence to be what you want to be

End

- the above phenomena miss the point of religion
- “questions of meaning and faith owe nothing to riches, cures, empowerments and outcomes”
- “we are ultimately in the hands of something more mysterious”
- the virtue is not some [Promethean] strength but courage ..

end

The Foundations of Humanist Ethics

Dr Bill Cooke

I argue that if we are going to take the lessons of the last four hundred years seriously, we need to appreciate that homo sapiens have been knocked off a series of pedestals we have set for ourselves.

Copernicus and Galileo knocked us off the pedestal of thinking ourselves the recipients of a universe made for us. Charles Darwin knocked us off the pedestal of thinking ourselves second only to God (if we're men, and third if we're women) in the Great Chain of Being. And now we're being knocked off the pedestal of thinking ourselves in command of our own coherent selves with faculties like reason. The failure to take these lessons to heart, and taking refuge in outdated religious nostrums is what Lloyd Geering called spiritual schizophrenia. I then argue for a series of ethical maxims, each of which is informed by one of the sciences and each of which follows, I believe, from the previous maxim in order to build a coherent world view.

Cosmic modesty. The core finding of the scientific revolution of the past four centuries is the rejection of the presumption that humans have some unique claim to the bounty of the universe. This cosmic modesty is an essential prerequisite to any meaningful change in outlook about preserving and sharing the planet. For me atheism is the most coherent way of understanding this requirement for cosmic modesty. This is the chief lesson of physics and mathematics.

Biophilia. It is an important component of cosmic modesty that we reject any form of transcendental temptation. We are not so intrinsically marvellous as to deserve a corner of the universe for our eternal repose. Like all living beings, we have but one life to lead and we have the duty to cherish every species' right to exist. This is the chief lesson of biology.

The integration of our personality. Humanism seeks a harmonious balance between our reasoning and our non-rational faculties. Our rational faculties help us avoid the pitfalls of credulity and fanaticism and our non-rational faculties help develop our capacity for compassion and exuberance. There is no room now for the discredited dualisms of body and soul, mind and matter. This is the chief lesson of psychology.

Agathism. This means living well and helping others live well. Living life to the full does not mean living selfishly, because living life to the full means helping those we love also to live life to the full. Helping others live well is an integral part of our own pursuit of happiness. Its evolutionary form is known as reciprocal altruism. This is the chief lesson of evolutionary psychology.

Toleration. Because we have rejected supernaturalist absolutes, it is beholden on atheists and humanists to exercise toleration toward those we disagree with. After all, we could be wrong, and there is always something we can learn from people who believe differently. Like every other system of belief, humanism has no monopoly on the truth. This is the chief lesson of social anthropology.

How we behave matters as much as what we believe. One of the happy consequences of taking toleration seriously is that we can see good in people who believe different things to ourselves. Humanism shares this great insight with the Asian traditions. This is the chief lesson of comparative religion.

Placing a high value on learning. Having rejected the absolutes and commandments of supernaturalism, we are free to learn how the world actually works. And this does not confine us to book-learning. The universe is so fascinatingly complex that there is no limit to what we can learn or to how we can learn it. This is the chief lesson of philosophy.

Accepting the tragic dimension of life. So much of what happens to people is unfair, and not some cosmic aberration to be explained away. No matter how much we achieve, there will always be more injustice and vileness to overcome. Awareness of this helps us deepen our love of life and our desire to alleviate the suffering of others. But it also helps us learn our limitations. This is the chief lesson of literature.

Laughter and joy. In the face of the absurdity of existence and the cruelty and stupidity of so much that goes on, humanists are committed to finding the humour in each situation and seeking an excuse to laugh as often as possible. This is best done with one's friends. This is the chief lesson of everyday experience.

This, I argue, forms the core of an atheist spirituality. Personally I don't use the term 'spirituality' but have become less worried if others should use the term. I call this humanism. Other people can call it other things. In the end it matters little what we call it.

Further reading

- Mario Bunge, *Philosophy in Crisis*, Amherst, NY: Prometheus Books, 2001.
- Daniel C Dennett, *Darwin's Dangerous Idea*, London: Penguin, 1995.
- Robert C Solomon, *Spirituality for the Sceptic*, New York: Oxford University Press, 2002.
- Wilson, Edward O, *Consilience: The Unity of Knowledge*, London: Little, Brown, 1998.

Dr. Bill Cooke is Senior Lecturer, School of Visual Arts, University of Auckland at Manukau and Editor of *The Open Society Journal of the New Zealand Association of Rationalist and Humanists*.



'Black Eve'

Allan Wilson was a New Zealand born and trained bio-chemist, who subsequently worked at the University of California, and who pioneered the development of evolutionary biology. In 1967 he published a scientific paper that argued that the origin of the human species could be traced through the study of genetics by focusing on mitochondrial DNA. Wilson concluded that modern humans had evolved from one mother in Africa about 200,000 years ago. At the time of Wilson's publication, not only was this finding not readily accepted by other scientists (whose time-frame for human evolution was millions of years older) but this 'Black Eve' theory affronted anti-evolutionists from the religious lobby. Once again, the certainties of faith were under threat from science.

Art making and our humanity

Technology, art and language have always been inextricably intertwined. At the core of all creative and expressive impulses – physical movement, chant, recitation, mark-making, shaping and assembling – is the beating human heart. The human capacity to organise the body, sound, language and materials into meaningful shapes and patterns, is what gives humankind the evolving and enduring gifts of music, dance, literature and the visual arts. Professor Piri Sciascia, of Victoria University, encapsulated this capacity of the arts to ennoble in the saying "*He toi whakairo, he mana tangata*": "Where there is artistic excellence there is human dignity".

The idea of art

Yes, the arts enhance our humanity, but they have also allowed us to believe that artists can be channels of divine grace and that through the arts it is possible for humans to approach the divine. Barnett Newman, a twentieth century American artist, said, "The first man was an artist". But the 'idea' of art is [in relation to the long history of human creative production] a relatively recent concept and appears to be culturally specific to Western thought. In the eighteenth century, the German scholar Johann Winckelmann, the 'father of art history', framed his ideas about art around

Roman copies of Greek sculptures and references in ancient Greek writings – particularly those of Plato and Aristotle from the fourth and third centuries BCE. Winckelmann was the first scholar to construct a coherent account of the visual arts – painting, sculpture and architecture – within a chronological and relational narrative. This powerful, overpowering understanding of art has penetrated, and is in the process of converting to a common currency, the art cultures of nearly every other civilization. The impact of this has often been cataclysmic. In many non-European cultures there was, previously, no concept of 'art', and such creative pursuits as music, carving, painting, dance, weaving and oratory were, rather, part of a much greater holistic entity. Contact with Western ideas corrupted these world views and the belief systems that informed their visual cultures.

All Saints, Margaret Street, London

1859 saw the publication of Charles Darwin's *Origin of Species*, in which he outlined his theory of evolution by natural selection – a theme that underpins the remainder of this paper. 1859 also saw the completion, after nine years of building, of the extraordinary church of All Saints, Margaret Street, in London. My primary academic interest is, as a Victorianist, the aesthetic of high Victorian gothic in architecture, as particularly manifested in architecture in the work of William Butterfield. His first acknowledged masterpiece, All Saints, is a manifesto of high Victorian gothic in its expressivity, use of coloured materials, riotous patterning in brick and stonework, and stylistic eclecticism — all of which contrast dramatically with the architectural exactitude and monochromism of English churches built a decade earlier.

All Saints was designed to be the model church of the Ecclesiological Society whose members sought to give architectural expression to the theological and liturgical catholic revival within the Church of England. All Saints, in its innovation, rawness and quirkiness, was hugely influential on the thinking of other high Victorian architects.

Biblical time / geological time

All Saints was the first church to be conceptualised in terms of geological time as opposed to Biblical time which is, for Christians, a very significant and fundamental shift. At the time of the building of All Saints many Christians held to the belief, established in the first half of the seventeenth century by Archbishop James Ussher, that the first days of Creation had occurred in the year 4004 BCE. Ussher's chronology came to be regarded with as much unquestioning reverence as the Biblical story of Creation itself. Geology shattered this belief; it destroyed this particular world view. Doubt began to seriously undermine old certainties.

Theology in stone

The geological survey of Britain, in conjunction with the technological development of the railways, made it possible to locate and then to transport the different building materials incorporated into All Saints – there are even fossils in the paving stones of the chance! Natural theology was an attempt to reconcile scientific accounts of successive evolutionary extinctions and re-creations with traditional theology. Members of the Ecclesiological Society regarded the variety of stones available as a source of awe and wonder, and felt themselves to be in the presence of a god-creator who was both in the material world and beyond it; in nature and beyond nature; in time and beyond time. God's time was vaster and more thrilling than human imagination or reasoning: in the rocks of Britain was a mystery, a truth, a type of catholic sacramentality to vanquish the Biblical fundamentalists and literalists. That is what All Saints is about.

Maori resurgence

Civilizations and cultures come and go, and with them the world views and belief systems that gave the lives people lived and the visual cultures they produced, meaning and purpose. Those that have survived have done so because they were able to adapt and change to new circumstances. Maori society and culture were not expected to survive the onslaught of European colonization. Yet Maori confounded the odds. There have been two major resurgences of Maori culture. The first, in the early twentieth century, was spearheaded by the great Maori parliamentarian Sir Apirana Ngata who set out on a 'salvage operation' to rescue what was left of

the culture – and there was quite a lot left. The second – the development of contemporary Maori art – is with us yet. This art, which has assumed impressive proportions and is a very powerful expression, documents not only the process of urbanization of Maori following the massive diaspora of Maori from traditional tribal lands to the cities, but also the secularisation of Maori culture and society. At the present time there is a sense that Maori culture is under siege, that Maori belief systems are still under threat.

Full circle

And so I come back to where I began with Allan Wilson and the theory of genetic evolution. Maori see genetic fingerprinting that aims to re-trace migrations in pre-historic times – which scientists are very keen to develop – as a threat. It is being strongly resisted by Maori who regard it as exploitative, race-based research and, therefore, as available to be manipulated and used for political benefit if it could be proved that everyone comes from the same place and all have common ancestors; which is ironic given that the pioneer of this brilliant work was a New Zealander. Embodied in this attitude is a real fear about Maori culture and its future. For what is a culture, and what its artistic expression, without the belief system that underpins and informs it? This question could be asked of every society and every culture that has ever existed. Without the concepts that charge art and culture with meaning and purpose it is superficial, shallow, merely decorative. We as humans have been here countless times before, but the drama is again unfolding before our very eyes.

The way forward

[But Maori are in a paradoxical situation.] The desire to preserve the old belief system is a form of creationism, of fundamentalism, a kind of essentialism. And yet there is no going back for Maori. The contact with other cultures has resulted in a blend, a fusion, although "It will never be lost, the seed that was planted from Rangiatea". In this statement there is hope for Maori culture, hope for the future.

I want the last word to go to a wise *kuia* Miria Simpson who, for the benefit of Maori fearful for their culture and for their arts, stated, "We have to accept the inevitable, things must change".

Kia ora tatou katoa.

Richard Hall on Extra-Terrestrial Life



A Summary by Ian Crumpton of the Keynote Address

It is not possible to reproduce the creative animated Powerpoint presentation which Richard Hall offered the Christchurch Conference. But here at least are some of the points he made.

Human horizons are expanding. That is the way it always is. The money spent on sending people to the moon equates with that spent by Elizabeth I on exploration in her time. And space is close – it's only on hour's drive... if you could drive straight up!

The Phoenix Astronomical Society in the Wairarapa helps people experience expanding horizons. It includes an astronomically accurate replica of Stonehenge.

The thousands of images available on the web help bring us a sense of expanding horizons too. There are thousands of photos of Mars alone. All just a mouse-click away.

Astronauts looking from the moon to earth could cover the planet at arms length with a thumb! That perspective changes our perception. All people, experiences, life – everything – is encapsulated on that tiny planet. 1 1/3 million earths would fit into our Sun. Planets are just the debris left over from stellar formation – as such, they are a common feature of our universe. And on our planet, all energy tracks (except nuclear) lead back to the Sun. The sun determines many events and developments on earth that we hardly think about:

- Good years for Burgundy wine coincide with sunspot maxima
- Lots of sunspots increase the incidence of certain illness eg melanoma
- Tree rings indicate warm and cooler cycles of solar emission – promoting or stunting growth
- The 17th Century mini-ice age and the 13th Century warm period resulted from solar variation
- New York crime rates have been traced to the solar cycle
- Major wars have coincided with sunspot maxima over the last hundred years. Thus the rise and fall of civilisations has a direct link to solar activity.

Meteors also directly affect us. Thousands are trapped by earth's gravity every year. Big impacts have caused mass extinctions (eg at the Cretaceous/Tertiary Boundary) and radically changed the course of evolution. Impact speeds

average 15 kilometres per second. We experience two a year of an "atomic bomb" level of energy.

Extra-Terrestrial Life:

Once conditions were suitable for life on earth, life appeared almost instantaneously. One idea that was first mooted by Lord Kelvin is that life hitch-hiked here from space. He called this idea "Panspermia." In the 1950s Fred Hoyle expanded the idea, suggesting that comets may carry bacteria, and would sneeze them onto us in passing. He was criticised on two counts: viruses are species specific. And organisms couldn't survive in space. The latter suggestion is now known to be wrong. Bacterial life forms are known that can survive in meteoric rock in space for hundreds of years. Bacteria have been found as deep as 2 km in the earth's crust. Scientists now estimate that most of the earth's biomass exists in this form – beneath the surface of the earth. We have found six meteorites that have come from Mars. One contains what could be fossilised micro-bacteria.

The upper atmosphere also harbours life – as high as 41 km. That implies about 1 ton of bacterial matter arrives from space each year.

Such new findings mean we must view the universe in a different way. "We are the universe looking at itself". We are deeply woven into its fabric. In Carl Sagan's phrase, "We are star-stuff." The implication, Hall contends, is that we cannot be alone. Other life must have evolved in other places. There are billions of other worlds. A good proportion must be metazoa (life bearing); most of those will harbour only bacterial life, but a small proportion (some millions) will harbour higher life forms.

There is no evidence that we have been visited by aliens. As Stephen Hawking asks, "When aliens arrive, how come they only talk to cranks?" Most descriptions of aliens by those who have purported to have been visited come from comic books or S.F. stories. They are in fact just not fantastic enough.

Life requires complexity. Only carbon is suitable (silicon is the next best contender, perhaps most useful for robotic "life") Carbon forms need (1) energy, and (2) water. The ecosphere round a star is a zone with both requirements in suitable amounts.

The picture at the head of the page is of Stonehenge Aotearoa.

Stars do evolve through time. The hot early sun could only support bacterial life. As it slowly warmed, life exploded. Life on earth has occupied a tiny window in time, civilisation an even tinier window. In a billion years the earth will be an inferno.

Distance and time are the twin reasons why we have not been visited. We see Saturn as it was an hour ago.

The stars we see as they were years, or centuries ago. Our radio waves have propagated only 90 light years from earth – to less than a dozen of the closest stars. If 500 light years is the average distance between civilisations, we can say they haven't come here because they don't know we're here! We're hiding in the bushes! Alien radio scanning might detect the oxygen in our atmosphere – a sign of life. But we have only been around for a short time, in astronomical terms. They would have to be very lucky to find us!

Profile of an Alien

We will never find anything that so closely resembles us that we could call it a man. Movies put faces on aliens to enable recognition. Good aliens have big heads, wide eyes, and a baby-like appearance. Bad ones are reptilian or insect-like. A real alien, if interested in us at all, will only see us as a food source. It must survive, so may well eat the local creatures (as we do). A horror movie is only ourselves turned upon ourselves. The Martians in Wells's "War of the Worlds" were only doing what the British were currently doing all over the globe.

Plants achieve 15% efficiency in converting food to energy. Herbivores are 68% efficient. Carnivores are 93% efficient. Thus the lion can laze around much of the time (and think?). An alien species are likely to be predatory, as are we. Note that our brain is reptilian at its base. Inside each of us is a... reptile! (The bit that controls sex and other such primal urges).

Morality

Anthropologists tell us that every culture prioritises itself above others. All cultures are ethno-centric. Jesus was portrayed as a European by European artists. We have trouble with other cultures. How much more traumatising will an alien species be! Will they see us as we see animals? They will certainly be far advanced beyond our evolutionary level. Will they see us, as a robotic culture described humans in a "Startrek" episode, as "an infestation of carbon forms."

Culture shock

A lesser technology always collapses in any cross-cultural encounter. If they get here, they will be vastly superior. We will be totally at their mercy. H.G. Wells write this in 1894

"Man's complacent assumption of the future is too confident. We think that because things have been easy for mankind as a whole for a generation or so, we are going to enjoy perfect comfort and security for

the future. We think we should always go to work at ten and leave off at four, and have dinner at seven for ever and ever.

"Even now for all we can tell, the coming terror may be crouching for it's spring, and the fall of humanity be at hand. In the case of every predominant animal the world has ever seen, the hour of its complete ascendance has been the eve of its entire overthrow."

"We are the universe looking at itself"



From the "Conclusion" of **What Makes Us Human?** **Art, Religion and Science in Dialogue**

by Keith Morrison

The full paper is on the website

"Religion, art and science are inseparable. The contemporary complex systems understanding of a generic strange attractor in all natural and social systems provides science with a basis with which to recognise this.

The contemporary Orthodox Christian theological development of Sophia is one way to enable religion to also see the inherent synthesis. Recognition of the prophetic role of innovative creative expressions, such as Hip Hop, Reggae and devotion to wilderness provide a safe environment for the creativity of the up and coming generations to express themselves constructively within the wider social and natural context.

To operationalise the synthesis of religion, art and science is to also recognise the unity of prayer and praxis, where striving to become fully personal fully human bodes well for the major challenge facing Western societies: the recovery, establishing and maintenance of sustainable development."

Richard Hall

Rachael Kohn

Jonathan Mane-Wheoki



I STARTED THE CONVERSATION BY ASKING whether Don Cupitt's warning of a 'trash future' for humankind was at all probable. Rachael reminded us that the immediate past was itself quite terrible but that we have recovered from it. Jonathan, returning from an international art tour, assured us that we have a trash *present*, but that it is pregnant with possibilities.

Richard reminded us, several times, that science is merely a tool and that today we are generally better off than we have ever been. In that science-based technology has contributed to our well-being.

Rachael talked of the unleashing of religious creativity in the 19th century which gave way to religious conservatism in the first half of the 20th century. This, in turn, gave way to new creativity from the 1960s onwards. There have been recent improvements, such as the move away from the "abusive cults" on the 1970s and a general intolerance of religious abuse.

Jonathan commented that the religious art of the 19th century was somewhat conventionalised. One escape was the new art which resulted from artists such as Kandinsky who was attracted to Theosophy Today, we are in a similar hiatus, not sure where art will go from here.

Richard deplored the "simple answers" than are provided by "Frankenstein monsters" of illicit mergings of science and religion. He wanted science to be accorded its own authority but for it to leave space for faith.

Rachael was asked how we can tell when religion has spread too far. She acknowledged that the secular world is more valuable to us than would our living in a theocracy. It permits wider and more imaginative responses to, and expressions of, faith than does a dogmatic theocracy. Richard amplified this by saying that, because the Bible is not written by God but by humans, then a forced adherence to it results in a compulsory acceptance of someone else's interpretation.

Jonathan returned to the earlier theme of 'throwing out the garbage' and reminded us that we are in a state of fruitful fluidity with religious beliefs. "Many of our current forms of religious belief are obsolete."

Perhaps we should be having a dialogue with the generations younger than ourselves on this subject.

Rachael's *New Believers* are creative — for example, western people are modifying Buddhism. Today there is a large number of pagan groups. Religion is becoming re-vitalised, outside of churches, with new issues: women; life-cycles; eco-spirituality.

Jonathan assured us that there is no necessary connection between a person's 'spirituality' and her competence as an artist.

Richard conceded that we should not make excessive claims for what science can claim as knowledge while expressing his optimism that it will continue to gather more knowledge.

In parallel, Rachael warned us away from the point of view that 'all religions are really the same underneath'. "Faith is really about finding meaning and purpose and hope to go on in the midst of [natural and man-made catastrophes]." "Its certainly not a life of equanimity ..." "... people have attributed the decline of faith to the ease and prosperity and affluence which we have lived in the West."

Jonathan found Rachael's use of the word 'courage' useful in the context of faith. He cited a cartoon that showed a small boy on the edge of a large swimming pool who is saying "courage is being really, really scared — but jumping in anyway".

In response to the question "what are we all searching for?", Rachael responded that we search for different things at different stages of our lives. We must develop the search as we grow up. "We search for direction, for consolation and the sense that there is something that is more than not just your life that is full of difficulties, but your life that is full of successes."

Richard agreed that science can illuminate a life of faith but we cannot 'answer spiritual questions in scientific terms'.

Jonathan ended the discussion by reminding us that, even under the most severe political repression, "the human spirit will out".

Reported by the Panel Chairperson, Noel Cheer

