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Emeritus Faculty

Australian National University

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Who belongs to ANUEF? An introduction service to members

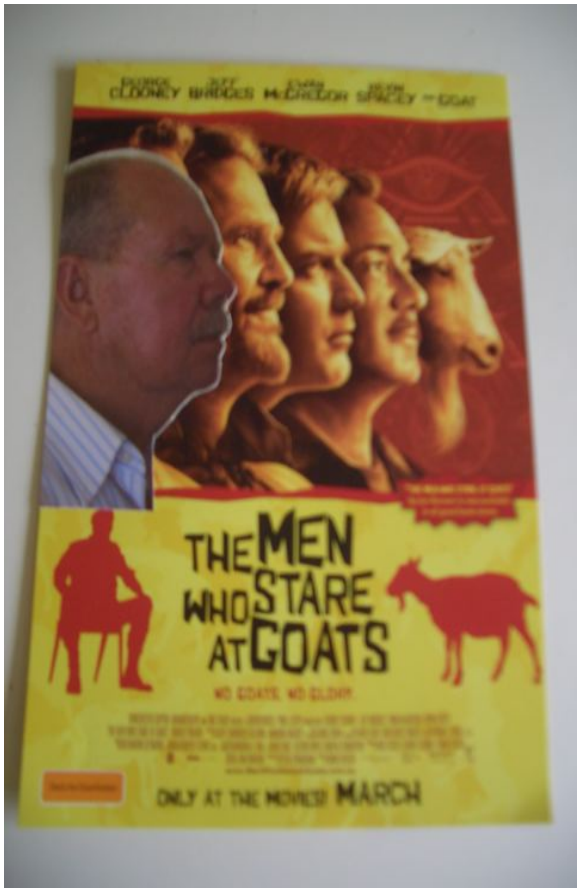
We may be members of ANUEF but do we know anything about other members? By introducing members to each other through profiles in the Newsletter we hope to encourage an exchange of views, academic discussion and a sense of belonging.

The first in this series is Emeritus Professor Barry William Ninham, MSc.W. Aust , Ph.D. Maryland, FAA.

Barry Ninham was educated at Guildford Grammar School, St Georges College and UWA. He graduated Ph.D in 1962 in Mathematical Physics at the University of Maryland. He was one of the first of the cohort of Australians who went to the USA rather than the UK for graduate education. In so doing he sacrificed his position in the WA 1960 Rome Olympics Crew!

The ANU Academic Board established the Barry Ninham Chair in Natural Sciences at ANU in 2008 in recognition of his four decades contribution to many fields of science. The distinction of a named Chair is one he shares with the Australian Historian, Manning Clark.

Barry founded the ANU Department of "Applied Mathematics" in 1970. It became the world leader in the field of colloid and



Barry Ninham joins the cast to do what he says he does best!

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surface science, a subject that underlies all of modern biology and chemical engineering. He also founded and led the ANU Department of Optical Sciences Department.

More than 65 of his students and research fellows have became full professors in Australia and overseas in various fields, and more than 10 had become Fellows of the Australian Academy of Sciences, and five Fellows of the Royal Society by 2010. He supervised around 200 Ph.D. theses in Australia and overseas.

Barry's work has been recognised in numerous honours and awards from Sweden, Japan, France, Russia, Germany and the USA.

Why ?-- Since the molecular biology revolution of the 1960's, the physical sciences, which ought to have provided the enabling tools to assist the progress of biology, (and of chemical engineering) have hardly contributed at all, at least conceptually. This was a great puzzle.

Barry Ninham and his colleagues, after 40 years of sustained fundamental work, found out why. As a result there is a huge paradigm shift in progress, 150 years of text book theory in physical chemistry is under revision. The new science does work predictively. It is an enormous step forward and of great practical significance to areas such as oil recovery and desalination besides molecular biology.

Most recognised contributions are:
pioneering advances in surface force theory and measurement, in theories of electrolytes and colloidal interactions, and in the self assembly of surfactants, microemulsions, lipids and other biosystems.
Contributions to other fields: Numerical analysis , astrophysics, stochastic processes, physical, inorganic and biochemistry, statistical mechanics of soft condensed matter, liquids at interfaces, solution chemistry, especially electrolytes, polyelectrolytes, new materials via templating and mechanochemistry, immunology, hydrophobic interactions,porous, disordered and random media; membranes for reverse osmosis and ultrafiltration.

Number theory in physics, molecular forces in physics, and asymptotic analysis.

Barry and his ANU Department maintains its high profile in experiment, applied work, and in theory at the boundaries of physical chemistry, chemical engineering, physics and biology, inorganic chemistry. The Department works extensively with industry.

Barry was active also in many other areas: in rowing, chairing the ANU Staff Center and the first Australian Wine Symposium before Grange and Max Schubert were even on the radar.

He has been chairman and organiser of various international meetings in Mathematics, Physics, Chemistry, and Biology; Reviewer of many scientific journals. Member and Chair, for 10 years, of the ANU Encyclopaedia Britannica Committee; director Australian Enhanced Oil recovery program; chair of Review Committees in Physical Chemistry (1986), and Basic Engineering Sciences, Sweden (1997); Reviewer of Physical Chemistry for Atomic Energy Commission, France (1998). He has served on numerous University Committees; as well as a feature writer in the national press, on education and science policy. He has been a consultant to companies including Proctor and Gamble Unilever, joint programs with Memtec, WA Sands.

He played a major role in preserving ANU from dismemberment during political disputes on new versus old universities.
He is joint founder, with Professor John Molony, of the ANU Emeritus Faculty.
He was a Foundation Member, UNESCO World Commission on Ethics of Scientific Knowledge and Technology. (1998-2002).

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His numerous awards are outlined in his brief CV which can be seen

here:http://www.anu.edu.au/emeritus/members/Barry_Ninham.html

Art Song recital

Our member, Angela Giblin (left above) formerly of the School of Music, has announced " Autumn Fire" a recital for Art Song Canberra. It will take place on Sunday, May 2 at 3pm at the Wesley Music Centre, National Circuit, Forrest. Her accompanist is the distinguished Canberra composer and pianist Margaret Legge-Wilkinson (right above) a graduate of the School of Music. The program is of really beautiful twentieth-century art song, and includes the premiere of a new arrangement of Margaret's "The Mountain". Inquiries: 6295 9613, also www.artsongcanberra.org

Library Memorial to Clea
An Appeal from The Academy

ANUEF members who are interested in the Pacific Islands may be interested in an appeal which is being conducted by the Australian Academy of the Humanities. The academy says, "You may be aware that a member of the AAH Secretariat, Jorge Salavert, lost his 6-year-old daughter, Clea, in the tsunami that affected the south coast of Samoa on 29 September 2009. Jorge and his family have embarked on a project to build a library for the community of Lalomanu, where Clea perished. This is a long-term project, whose initial stage involves the construction of the building and stocking the library with books for small children and teenagers. The library will be named after Clea. Council has decided to give its full support to this initiative and now warmly invites interested people to make a donation to this project.

The Academy of the Humanities has set up a fund (The Lalomanu Library Fund). A form for donations and tax deductibility purposes is available on request. Cheques should be made out to the Australian Academy of the Humanities. Please mark the envelope with “Lalomanu Library Fund” so we can identify it as a donation." Tel +61 2 6125 9860

Holy Ground
A Space to Share

Professor Dr Anthony H. Johns’ message in his paper titled ‘Holy ground: a space to share’. Dr Johns’ paper was read in Karachi in January at the launch of *Essays on Islam: Understanding the Quran*, the fifth volume of a series published by the Hamdard Foundation Pakistan. The book is a ‘felicitation volume’ published in honour of the scholar.

This is a partial text of the address by Professor Johns:

Formally speaking, the era of colonialism is past. Despite continuing asymmetries of economic power and technology and military hardware among nations, the ideology that grew alongside and out of the colonial experience is largely discredited, on the part of both colonizers and colonized. Nevertheless the evils it created are not totally exorcised, nor confusions and disparities in relationships between peoples and nations fully resolved. There are still many unwilling to accept human diversity, and all the apparent inconsistencies and contradictions that are inevitably part of it, and regard religious and racial identity alone as constituting a claim for superiority.

In a plural world in which diversity is an accepted reality as part of life, different peoples can live together, and without even

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realising it adapt, change, and be enriched by the variety of experience they encounter. Pluralism is to be celebrated. And the sharing of traditions through education is a gateway to that celebration. There is a need to learn this by sharing with, by welcoming 'the other', without whom the 'self' would lack the intellectual and spiritual components that allow it to experience an ongoing growth.

To share, to appreciate, and so to learn from another religious tradition is a special challenge. For the Christian 'westerner', coming face to face with the world of Islam has its special challenge, as much from history as theology. So much is shared, so much is different, and what is different often needlessly obscures what is shared. The issue is not simply a matter of religion, if by religion is meant a set of theological propositions that have as their ultimate authority a revealed Book, and the doctrines that theologians and legists derive from it. Rather as the religion of the Book grows in the number of its adherents over the passing of time, the message, the values, the symbols, images, motifs of the Book spread and become a way of life, a life expressed in a distinctive language, identified by a tone and colour which derives from the interactions of members of the community with each other, and with outsiders, tones and colours which shift blend and interweave according to time and circumstance.

The seminal literary critic Northrop Frye in his book *The Great Code* gives an account of how Western literature, has absorbed Biblical motifs and themes, symbols and images, clothing religious belief in a secular garment, to yield what is sometimes called Christian humanism. In Western society, even when their origin has been forgotten, they retain their presence, and maintain something of their meaning.

It is often overlooked that there is also a great tradition of Islamic humanism, perhaps more diverse and active, certainly equally questioning, and as creative as Christian humanism, an Islamic counterpart to what Northrop Frye wrote of in *The Great Code*, something present at every level of the vast range of Muslim cultures and societies. It extends beyond faith and morals, and activities with an overt religious motivation such as the daily prayer, the great events in the Muslim calendar such as the celebration of *mawlud* (the birth of the prophet), the *Isra' Mi'raj* (Night Journey and Ascension), the *Laylatu'-Qadr* (Night of Destiny), the observance of the fast of Ramadan and the celebration of the Hajj. It is a product of the ways in which the symbols and images present in the Qur'an, the personalities and their interactions it tells of, the values and judgements, ethical precepts, the hymnic doxologies, the range of spiritual realities it reveals that are absorbed into and shape the collective *imaginaire* of Muslim peoples.

The light of the spirituality behind all these is present in the so-called secular world under many guises; not always recognised by outsiders, yet taken for granted by the community. And signs of this infusion of faith, and the tone and colour that clothe it, may be discovered as much in doubt and ambiguity, in testing the limits of faith as in faith itself. Such searching is as much proper to the total life of religion as the insights of its mystics, the religious virtuosi who while in time, have their eyes fixed on eternity.

It is to be found in the continuing struggle to define what is absolute religious truth, to experience the very inscape of the revealed words. It is to be found in the struggle to define community boundaries, an awareness of the limits of human language in the definition of dogma, a readiness at times even to live on the fringes of faith as traditionally defined. It is to be found in the search for a deeper understanding of its values and along with a search for spiritual experience, a quest for ways of giving a face to religion that shows not only its compatibility with modernity, but its capacity to infuse and refresh modernity with values and the ideals of a way of life that is guaranteed by a Guide from beyond time.

The Qur'an is the foundation and well-spring of a broad swathe of religious cultures, from Morocco to the Moros, and now too in the Western world that results from an experience of it as the unmediated word of

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God, which permeates the lives of Muslims, faithfully held in their minds and memories, heard from the lips of a great reciter, or beheld on the lovingly calligraphed page or stone monument.

In responding to, thanking you for this honour, I feel a need to speak personally, and reflect on my journey of exploration. My first direct experience of Islam was as a post war British conscript in the Malay State of Johor, called up in 1946, serving an Education NCO (with the substantive rank of Corporal) teaching English to locally enlisted Malay soldiers. It was from them that I first discovered what the fast of Ramadan was, and saw their dedication and faithfulness to it as they worked in the open under the full tropical sun, servicing vehicles, replacing engine parts and changing tyres of three ton trucks.

Towards the end of the month, I felt an electricity in the air. I saw torches set burning in the foreyards of houses along the road, and smelt the fragrance of incense that hung around them. Then I did not know that they were waiting for the Night of Destiny (*laylatu'l-qadr*), hoping to catch the moment of re-enactment of the primal revelation of the Qur'an, when it was brought down from the throne of God to the lowest of the seven heavens to be taken pericope by pericope to the prophet Muhammad, a moment when the heavens would open, angels ascend and descend in glory, and the very trees bow in adoration. There was a nativity like atmosphere. Expectation heightened as the time for the appearance of the new moon drew near. Coastal Malays pushed off to sea in boats, and those inland climbed hills, eager to be first to catch sight of the first sliver of the new moon, signalling that the fasting month had ended and the new one had begun.

On the day of the 'Id, they took me to observe the congregational prayer at the Abu Bakr mosque in Johor Baru, and the repeated *takbir*, the rhythmic, melodic chanting in chorus of the phrase *Allahu Akbar* - God is most great - before the celebratory ritual prayer, had the surge of a sea. Then I went with them to their homes to meet their families, to eat in abundance of curries, sweatmeats and fruit. The experience held me enthralled. It impelled me on demobilisation and return to the U.K. to enrol at the London School of Oriental and African Studies for a degree in Malay with Arabic as a subsidiary subject.

During my undergraduate years I discovered and developed what can best be called a post-adolescent enthusiasm for 'Sufism'. On the completion of my degree, I began a Ph.D thesis on Sufism in the Malay World, based on an anonymous collection of Malay mystical tracts in the Ibn 'Arabi tradition. The thesis I produced was not something I am proud of now. Hardly worth an MA I would think.

I had not realised then, that often it is only after completing formal academic training that the real process of learning begins, and that much of it consists of unlearning, unlearning much of what I had misunderstood, gradually shedding misapprehensions, prejudices, received opinions, eventually to realise that the world to which I sought and thought I had gained access was not to be entered and explored so easily, not even a tiny corner of it. I did not realise then that 'Sufism', although a convenient portmanteau expression, was a European coinage, and that the richness and diversity of the Sufi way was not to be expressed as or reduced to an 'ism'; that *tasawwuf* was not an abstraction, but a verbal noun, that it meant living in a particular way, a way of asceticism and holiness, seeking the presence of God. I did not realise that the 17th century Malay/Arabic tracts I had studied for my Ph.D. thesis were only the tip of the proverbial iceberg, part of an immense organic, pulsing, living, complex whole. I did not realise that their Malay author was writing them as an educational tool, designed to introduce his pupils to higher levels of learning, or that he presupposed they already had a grounding in the foundational Islamic disciplines *fiqh*, *tawhid*, and *tafsir* which were still a closed book to me.

I did not realise that their author, the school to which he and his colleagues belonged, were part of a network of tariqas, that included Indian, Kurdish, Syrian, Moroccan,

Persian, Yemeni and Egyptian teachers, who met in Mecca and Madina. I was not able properly to situate my author in a frame of reference that did justice to him, and his dedication to his task. But even worse, I did not realise I had been attempting to study the mystical, spiritual dimension of Islam without any engagement with the source and origin of Muslim, and *a fortiori* Sufi spirituality, the Qur'an. None of my supervisory panel even mentioned it! It is an encounter with the Qur'an that creates such an impulse. This requires not simply a reference to it, or the reading of a few verses, but a dedication to the Book as a whole, a listening to it time and time again as the human voice proclaims and celebrates the divine words, memorising it, holding it in the heart. This is what fecundates and nourishes the Sufi yearning for an experiential knowledge of God. I was unaware of the experience of Muslim children, girls as well as boys in the study of the Qur'an, the learning to articulate every letter, to say every word, to read every sura, leading to the celebration of '*tammat* Qur'an' which assured them a commitment to and intimacy with the Book much closer than that generally achieved of the Bible by their Christian counterparts, for whom, of course, the emphases in religious education are different.

That one should attempt to study, or imagine one has studied the spiritual dimension of Islam without a serious engagement with the Qur'an as a whole is beyond belief. A number of Western authors at that time were content to associate 'Sufism' with the Qur'an by reference to half a dozen or so verse they described as 'particularly loved by the mystics. The idea that these verses summated the relationship – with no account taken of the pericope in which they occurred, their position in the sura, correspondences direct and indirect, acoustic and verbal in other suras and their role in the Qur'an as a whole, misses the central dynamic of the Qur'an in the spiritual life. And this centrality of the Qur'an has its counterpart in the daily world of family life, of trade, of commerce, architecture, and literature. The Qur'an then in a real sense is the very heart and centre of the extraordinary variety of cultures of which it is part, and which the Faith it inspired has engendered. Indeed, an awareness of the role of the Qur'an is a necessary background for an understanding of the values and dynamics of Muslim societies, an understanding of the Qur'an as Muslims understand it, an understanding that Muslims recognise as the foundation of their religion, that underlies the variety of ways in which these values and dynamics are realised.

When I was a student, back in the 50's, the Qur'an frequently reduced to a reference text: 'Islam teaches this' – see the Qur'an sura x, verse y. 'Islam has confused ideas on this', see sura a verse b, and then sura c verse d. , as if this were all that was to the Book. Such an approach overlooked the context in which the teaching in question was stated, and the multiple levels of meaning at which a verse might be understood, and made no reference the kind of book that the Qur'an is, its divine and human dimensions, its literary power, the spiritual and humanistic wisdom within it, the range of styles of its verses, or its transfiguration of the language of every day speech into words replete with divine meanings.

To be understood and appreciated for what it claims to be, the Qur'an requires an encounter and a response that is at one and the same time personal, moral, literary and aesthetic. Yet this is not easy to achieve. The layout and arrangement of the book between two covers, its division into suras (chapters), the content and internal organisation of the chapters follow principles that are unfamiliar to traditional western ideas of rhetorical structure.

Additional obstacles for the 'outsider' are that the printed text before them it is the spoken word, and there is a binary aspect to the Qur'an's existence as a revealed Book, these aspects being Process and Event. As Process, it is God's locutions addressed to the prophet at succeeding moments in his life, beginning with the call in the cave of Jabal al-Nur around 610, when he was aged forty, and continuing until shortly before his death in 632. Each of these locutions is appropriate to, and occasioned by the situation of the prophet at the moment they

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were revealed to him. They concerned his responsibilities, the issues he faced in peace and war, what needed to be proclaimed of salvation history – the prophets preceding him – and his unique and final role in the fulfilment of it; his status as the successor of Moses, visited by the same angel of revelation (*Namus*) as had been Moses, the insults his announcement of his vocation provoked, and how he was to respond to them; and above all the prayers he was to utter and teach, and God's own expression of His ineffable uniqueness and power. The sequence (*marahil*) of these locutions, can be known only in part, some being identified in *asbab al-nuzul* (Circumstances of Revelation). But many are not, nor do they need to be. It is enough that they were revealed to the prophet, heard by the Companions, and guided their lives throughout a range of circumstances under the prophet's leadership , forming the core of their prayer life. Notwithstanding the specificity of occasion, their universalistic character as appropriate is disclosed in later times.

Then there is its mode of existence as Event, the so-called 'Uthmanic *mushaf*, the form in which it is universally known and received, arranged into 114 suras, not based on the chronology of revelation. In this *mushaf*, what are widely held to be the first words of revelation , *iqra' bi'smi rabbika* 'Declare in the name of your Lord' occur as sura al-'laq (96):1, and what many regard as the final verse *al-yawma akmaltu lakum dinakum* 'Today I have completed for you your religion' occurs in sura al-Ma'ida (5):3)

How this transformation from Process, chronology of revelation according to occasion – to Event, *mushaf* (revealed text between two covers) occured is a mystery. al- Suyuti remarks that 'While historical circumstances determined the order in which the qur'anic revelations were sent down, consideration of wisdom determined the order in which they were arranged'. – al-Razi insists that this is the original form of the book as it was brought down to the heaven of this world on the Night of Destiny (*Laylat al-Qadr*) by convention in many communities celebrated on 27th of Ramadan.

The ordering of the *mushaf*, although not conforming to western conventions of rhetorical structure has its own internal structure and principles of order, offering a panorama of spiritual insight and guidance that unfolds with a sense of inevitability from the universal prayer for guidance that is sura 1, al-Fatiha, to sura 114, al-Nas, a prayer for deliverance from all evil. This arrangement presents itself with such dignity and authority, that once one is familiar with it, it appears so proper, that it cannot be thought of in any other form.

The relation between these two modes of existence, Process and Event is part of the internal dynamic of the Qur'an. Between them is a tension that is part of its meaning, and the way it communicates its meaning. To borrow an image, they are the two lungs of the Qur'an, and every encounter with the Qur'an to be fruitful requires the breath of understanding provided by both. It is significant that all attempts to rearrange the text, and present its pericopes in order of revelation rob the book of authority and authenticity. Rather, notwithstanding the specificity of each revelation, their contextual positioning in the 'Uthmanic *mushaf* , in the sura and in the Book as a whole reveals emphases and resonances that give access to multiple levels of meaning.

The *mushaf*, while transforming the sequential, occasionalistic revelation into a book not structured by time, is nevertheless totally true to the primal revelation. And the two modes of its existence, the Process of its revelation and it universalistic, cosmic role as Event, place it both within and outside of time. Its arrangement has its own innate spiritual and pedagogic wisdom, provides its own levels of meaning. The suras range in length from 3 to 286 verses. Every sura, whether long or short, has its own character and unique place in the *mushaf*. Each has its individual form and relationship with the other suras in the Book. Sometimes the form appears straightforward, at others it is complex, and only discloses itself after prolonged 'study'.

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Yet more than study is required to appreciate these two modes. There is need for an encounter with the heart, deriving from the physical experience of both hearing and uttering the words as well as understanding their lexical meaning. It is only then that the shape and coherence of the sura may be felt. In describing the shape, the structure of a sura, there is need for a note of caution. In the Qur'anic frame of reference, terms such as introduction, section, division, conclusion and so on should not be understood in a way that gives the impression of closed, formal boundaries. Sura Yusuf (12) for example, is predominantly linear in structure – although there are many other examples of extended narrative in the Qur'an. Sura al-Furqan (25) is organised around a pattern of challenge and response: the challenges of unbelievers to the Prophet, his role, and the message he brings, the responses he makes to them, and closing with a celebration of God as al-Rahman. Sura al-A'raf (7) is episodic, a mix of direct address, dialogue, narrative and hymnic celebrations of the creative power and wisdom of God. These elements are disposed within the sura with varying distributions of emphasis by an interplay of multiple voices and modalities of utterance, the syncopation of real and narrative time, and the patterned sonorities of Qur'anic rhetoric to communicate the core theological concepts of divine unity, prophethood, and resurrection.

As Event, an important part of the Qur'an is dedicated to establishing a framework of salvation history. It sets out the divine economy of salvation for humankind after the fall of Adam. It presents humankind as needing not redemption, but teaching, thereby radically distinguishing Islam from Christianity and the Christian doctrine of original sin. God teaches humankind by the messengers he sends them. The narratives of these messengers are sharply etched and of almost visual clarity and impact. There are vivid accounts of Noah, Abraham, Isaac, Jacob and others of the great figures also known in the Judaeo-Christian tradition, along with figures known from the Arab tradition, Hud, Salih and Shu'ayb. All of them are sent to preach to their people, all of them faced rejection, all in a time of God's choosing were vindicated. Those who followed them were rewarded, in this world or the next, those who rejected their teaching were punished.

In this panorama of salvation history is revealed a convergence between the Qur'an as Event, and as Process. Stories of the fall of Adam, and of the Prophets succeeding him, for example, establish the economy of salvation history. They show God's caring for humankind as a whole: highlighting the aspect of the Qur'an as Event. But in showing God's concern for an individual, His prophet Muhammad, the aspect of Qur'an as Process is revealed. In this there is a human dimension to the Book, as God tells him that the pain he suffers from rejection, the prophets sent before him had also suffered, and assures him of His continuing solace (*tasliya*). It shows him as a man conscious of an awesome responsibility, and his concern that he might fall short in what was expected of him.

It becomes clear that God has, as it were, a pastoral care for His prophet, for his feelings, his responses as a human being to the extraordinary task he has been set: to gain recognition of his role as Messenger of God, as a new Moses, proclaiming the divine unity, the devotion, the gratitude and obedience God has the right to expect for all His gifts to humankind, His right to reward belief and gratitude, and to punish disbelief and ingratitude, - and finally the certain coming of a day of the resurrection of the dead, and judgement. In presenting this message Muhammad faced mockery of the most virulent kind from those who rejected him. He was tempted to lose patience with those to whom he was preaching, tempted to call on God to bring on the punishment God warns of for those who reject His messengers. And God comforts him, encourages, and even from time to time reproaches him. The Book as Event provides a context for this continuing care as Process.

Hence the reverence of Muslims for his unique status. Through him, an individual, is communicated a universal message for all times and all peoples. The prophet has

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experienced the Qur'an as process, as it was revealed to him in time, and left behind him the *mushaf*, the form in which it existed outside of time, superseding both the Torah (*Tawrah*) and the Gospel (*Injil*). It is from this perspective that the later mystical tradition sees Muhammad as a logos, the ontological instrument by which the Knowledge of God as Knower transmitted to him becomes the Known, the wondrous beauty and variety of everything in creation.

To be put to the test is part of the human condition. We live in a time when Faith itself is put to the test by violence in religion. The Qur'an recognises that at times, war is part of this human condition, but sets out the instruments for securing peace, and speaks of the time 'when war lays down its burdens'. (Sura Muhammad (44):4. It urges the prophet to be peaceful to those who reject him (Sura al-Zukhruf (43):89; it counsels him not to call down God's judgement on the unbelievers. 'Wait patiently the decision of your Lord, and do not be as was the Man of the Fish (Jonah) Sura al-Qalam (68):48. It presents maxims for concord in the community, 'If an evil man brings you any report [of another people], investigate it first lest you harm them in ignorance [of the truth], and you regret what you have done, (al-Hujurat (49):6; 'If two groups of believers quarrel, make peace between them' (al-Hujurat (49):9; 'Let not one group of people criticize another, who may be better than they are. (al-Hujurat (49):11; 'Those of you who believe! Avoid being overly distrusting, for some distrust may be sinful; do not spy [on each other], do not indulge in backbiting' (al-Hujurat (49):12'. And sura al Fath (48):25, gives an account of how divine guidance brought the Prophet to a successful negotiation with the Quraysh, avoiding hostilities despite provocation, with the treaty of Hudaybiyya, and tells how violence was not permitted against those 'who disbelieved and excluded you from the Sacred Mosque', in case believing men and women be harmed.

Among the stories of the prophets presented in the Qur'an are a number telling of Moses. One of great power and beauty is of Moses hearing the voice of God from the burning thorn bush (Sura TaHa (20):11-12). Yet even Moses had to endure the scorn and insults of Pharaoh (sura al-Zukhruf (43):51-52). One aspect of this story is its role as a solace (*tasliya*) for Muhammad. The story of Jonah is told for the same reason, but with a further dimension. Muhammad is counselled not to be as the 'Man of the Fish'. The people of Jonah, like many of the Meccans to whom Muhammad was preaching, at first refused to believe, and Muhammad was concerned because their punishment was delayed. Muhammad too, is urged to be patient. God says to him *fa'sbir*! (al-Qalam (68):48). The people of Jonah believed, and those of Mecca too might believe, given time.

Ibn 'Arabi sees in the fact that Jonah's people were not destroyed, God's love and care for human life. It is proof of God's preference for life over death, and the preservation of human life as better than its destruction, for He created Man in his image. Ibn 'Arabi's encounter with Jonah communicates something of the power of the Qur'anic message, and its humanistic dimension. It shows God as al-Rahman, the Merciful. It shows the Qur'an as open to infinity. It brings to mind the words of Martin Buber who said to those who regarded the Torah as a closed world, 'To you, God is one who created once and not again; but to us God is He who 'renews the work of creation every day', To you, God is one who revealed Himself once, and no more; but to us He speaks out of the burning thornbush of the present'. 'Burning thorn bush' may perhaps be taken as an image of the world of in which so many people have suffered so much, not least in this and the other great cities of Pakistan. Pray that God may speak out of this fire. For as the Qur'an puts it incomparably in sura al-Rahman 'Every day He is in a new activity (*kulla yawmin huwa fi sha'n*) Which then of your Lord's blessings can you deny? (Q.55:30)

In this hope, once again I thank you! *al-salamu 'alaykum wa rahmatu'llahi, wa barakatuhu*!

Obituary

Hans Adolf Buchdahl

7 September 1919 — 7 January 2010

Born in Mainz (Germany), Hans Buchdahl was already studying at the Royal College of Science, London (later absorbed into Imperial College), when his German Jewish parents moved to England in mid-1939 to escape Nazi persecution. He completed a BSc and received the Associate of the Royal College of Science (ARCS) from Imperial College.

When the war began, the British Government, unable to determine individual allegiance, interned German nationals, including many Jewish refugees already fully assimilated. In July 1940 Hans came to Australia on the infamous *Dunera*, fitted to accommodate 1,500 including crew, but on that voyage carrying 2,036 Jewish refugees, 451 German and Italian prisoners of war and the survivors of the *Arandora Star.* On arrival in Sydney after a 57-day voyage in appalling conditions due to gross overcrowding, ill-treatment by poorly trained crew and at constant risk of enemy attack (the ship was twice hit by torpedoes but neither went off), the local army medical officer was so appalled that his subsequent report resulted in the court martial of the British army officer in charge. The 1985 television movie 'The Dunera Boys' depicted the experiences of these unfortunates.

Hans was detained initially at Hay in New South Wales then in May 1941 at the Tatura centre in Victoria. The internees set up an unofficial 'university' to pass the time and it is said that Hans continued his own general relativity research writing on the only available paper – the reverse of jam-tin labels. Members of a government optical munitions panel noticed his talents and on 29 October 1941 Hans was released under a guarantor and transferred to the University of Tasmania in Hobart, to 'assist with the teaching load of particular physics staff heavily involved in local optical munitions work'. After the Japanese attacked Pearl Harbor in 1941, many other detainees were reclassified as 'friendly aliens' and released into the community under the guarantor arrangement. Hans integrated quickly into his new role and gained the confidence and respect of fellow staff and students. His interest in the theory of geometrical optics began at this time, initiated by optical munitions work at the Waterworth Annexe, where he worked out formulae for optical aberrations taken to high orders that the Waterworth group used in designing imaging systems. These formulae were later applied world-wide, including in systems carried by satellites. The estimated total value of optical systems using his formulae now runs into billions of dollars. At the same time he continued research in general relativity and classical thermodynamics.

Beginning at the University of Tasmania as an Honorary Assistant in Physics, he was appointed Research Physicist in 1946, Lecturer part-time and Research Physicist in 1947, Senior Lecturer in 1952. In 1949 the University of Tasmania awarded him a DSc for his research including important publications in his three major interests, general relativity, geometrical optics and classical thermodynamics. He was awarded a DSc from Imperial College, London, in 1956. In the same year he was appointed as one of the first Readers at the University of Tasmania and held that position until his appointment in 1963 to the inaugural Chair of Theoretical Physics in the Faculty of Science at the School of General Studies of the Australian National University, where he stayed until his retirement in 1985.

His continued research in his three major interests resulted in some 160 published papers and five books. He was elected a Fellow of the Australian Academy of Science (FAA) in 1968, received its Thomas Rankin Lyle Medal in 1972, the Walter Burfitt medal from the Royal Society of New South Wales in 1980, the C. E. K. Mees Medal from the Optical Society of America in 1993 and the A. E. Conrady Award of the International Society for Optical Engineering in 1997. He was a Nuffield Foundation Dominion Fellow in 1951, a member of the Institute for Advanced Study at Princeton 1959–60, a New York State Professor of Optics, University of Rochester (New York) in 1967-68, an Overseas Fellow of Churchill College, Cambridge, in 1979, and was made an ANU

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Fellow and Emeritus Professor following his retirement.

While his optical work had a profound impact in the design of optical systems, Hans was also internationally recognised for his work on relativistic fluid spheres, obtaining a more physically realistic solution than Schwarzschild's earlier one for the interior of a perfect fluid-spherical symmetric-non-rotating star. The literature refers to the 'Buchdahl fluid spheres' and also to 'Buchdahl's Theorem'. He corresponded with Einstein on his relativistic research.

His work on classical thermodynamics is also noteworthy and became the subject of two books, *The Concepts Of Classical Thermodynamics* (1966), the other being a series of twenty lectures in thermodynamics, published in 1975. He had a strong interest in the logical structure of the theory and in how to teach it. These two books are typical of his ability to distill the essence of the underlying theory and present it with rigour and in a logical, concise and lucid manner. His lecture notes on general relativity also appeared in book form as *Seventeen Simple Lectures in General Relativity Theory* (1981). His teaching mirrored his depth of knowledge, passion for rigour and logical structure. He demanded high standards but, as a 'gentleman of the old school' he was highly respected by his students and staff. Hans did much bush-walking while in Tasmania and later would often walk up Mount Ainslie in the early mornings from his home in Campbell and also to his office at ANU. His passions included music, particularly Bruckner and Bach, and extended to the cactus plants that adorned window sills in his room and ante-room as well as the stairwell close to his office. While some might not consider them particularly attractive, they did produce beautiful flowers for one day of the year.

Hans is survived by his wife Pamela, and two of their three children Tanya (Tintner) and Nicholas. Their second daughter Catriona (Kate), a gifted violinist who trained at the Juilliard School and then with Sandor Vegh and Valery Klimov in Europe, tragically died of cancer in 1992.

A consummate theoretical physicist, Hans Buchdahl may not enjoy the public image of some of his contemporaries; but his contribution to all his chosen fields was enormous and his legacy to theoretical physics will particularly live on in the thousands of imaging systems which bear the fruits of his remarkable calculations of higher-order aberration coefficients.

The author gratefully acknowledges the assistance of Hans's former staff, the recent publication *History of Physics in Tasmania 1792-1982* by Arthur Geoffrey Fenton, and the Buchdahl family.

John Sandeman

Liu Ts'un-yan (1917-2009)

Liu Ts'un-yan, Emeritus Professor of the Australian National University, who died in August at the age of 92, was one of the very last and most significant native exponents of his country's grand cultural tradition. He was a great master, in the real sense of that term.

His passing truly marks the end of an era. The range and depth of his knowledge and understanding of Chinese culture, his effortless ability to interpret and integrate all of its branches, were simply breathtaking. To give one small example. In 1952, while still in Hong Kong, he wrote a couple of short essays, reminiscences of Cheng Yanqiu, the famous Peking Opera actor he had himself known in Peking, in the late 1920s. Liu remarked that the foundation of this great artist's success lay in his lifelong pursuit of Taoist self-cultivation, including the practice of Tai Chi and of breathing techniques. This practice, done steadily and consistently over the years, was what maintained the high standard of his singing and stage performance. This was a profound observation, lightly made, typical of the insights that were part and parcel of Professor Liu's thinking, that informed his everyday conversation.

Liu Ts'un-yan's lifelong involvement with China's indigenous Taoist philosophy and

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religion, a subject on which he became one of the world's unrivalled authorities, arose directly out of a personal experience during his childhood in Peking. He was a sickly child, and no physician, Chinese or Western, could be found to help him mend his health. He was finally taken to a Taoist monastery and there he was initiated by one of the monks. That was when he started learning some of the basic *qigong* practices that helped him throughout his long life. In the closing sentences of a wide-ranging historical survey of Taoist religion, published in Hong Kong in 1980, he returns to this theme: whatever else one may have to say about Taoism, he argues, it has done so much practical good for the men and women in our society.

It is hard to know where to begin. Liu was so many things at one and the same time. He was a Chinese scholar-gentleman at home in many branches of Chinese literature, classical and vernacular, and fluent in many varieties of the Chinese language, Mandarin, Cantonese, Shanghainese dialect. He even knew Shandong dialect. The province of Shandong (birthplace of both Confucius and Mencius) was his family's ancestral home. And ever since the Manchu conquest of China in the early seventeenth century, his family had been Chinese Bannermen, honorary Manchus, inheritors of that proud tradition within a tradition.

He was the most meticulous scholar and teacher, able to rise to the demands of the most exacting textual scholarship, at home in the most arcane byways of the Confucian, Taoist and Buddhist classics. His scholarship was founded on the close, indefatigable reading of central texts. He was a painstaking bibliographer, making copious notes at libraries all over the world. And yet behind this scholarly (and sometimes daunting) persona, was a man of great humanity and warmth, a playful man of letters, a witty essayist (again in both classical and colloquial Chinese), a fluent novelist and playwright.

Liu could be a devastating critic, wherever he discerned incompetence and pretentious, phony scholarship. There were memorable seminars at which he decided that enough was enough, and proceeded to offer the speaker a few 'minor emendations'. And yet he was a prodigiously kind and generous mentor wherever he sensed the presence of a receptive mind.

It was Australia's extraordinary good fortune that in the early 1960s Liu chose to leave Hong Kong, where he had lived and worked since after the war, and to travel across the seas and join the ANU. He made Canberra his home for the last half of his life, becoming Professor of Chinese in 1966. Over the subsequent years, until his retirement in 1982, he did more than anyone to put the ANU on the world map of Chinese Studies. His achievement was honoured by honorary doctorates from various universities, including the ANU, Hong Kong University and Murdoch University. In 1992 he was made a Member of the Order of Australia.

His deeply humanistic vision of Chinese Studies was spelled out most eloquently in his own inaugural lecture:

'The modern university had its origin in medieval European ecclesiastic education. Its objective was to produce an all-round man... We still respect this great tradition. This is precisely what is meant by the Chinese classical saying: "The accomplished scholar is not an utensil." A mere knowledge of the language does not constitute the real understanding of that language. In order to understand the feelings expressed in the Chinese language one must be acquainted with at least some of the many rich works of literature written in Chinese... We are concerned not only with a language and a literature but, through the learning of that language and literature, with something more lasting, something deeper, a more intimate and sympathetic understanding of the people whose language and literature we are studying.'

Professor Liu was happy during recent times to see for himself that his humanistic legacy was being taken seriously once more, that traditional Chinese Studies were being revived and that the ANU was once more standing up for those enduring values that he believed in so strongly. In his own

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writings, in his own teaching, in his own person, he embodied that Chinese sense of cultural continuity and actuality, of the past in the present, and of the present in the past, that sense of the interconnectedness of literature, history and philosophy, of the lively links between scholarship and life.

Liu was the bearer of a great tradition. As a student at Peking University he studied under some of the greatest scholars of a transitional generation. He himself went on to become one of the key members of a worldwide circle of scholars and critics, many of whom were his personal friends, and most of whom have by now sadly passed away. For Liu such friendships were as pools of light in the darkening times around him. He wrote in 2002 of his friendship with David Hawkes, the Oxford scholar whose death on 31 July 2009 so saddened him: 'In these troubled times, when all the talk is of the turmoil and chaos of war, to have had a friendship like this, that has lasted half a century, is indeed something to be treasured.'

The very idea of friendship, of a community of like-minded scholars and men of letters working together across the boundaries of geography and language, indeed of time itself (for Liu's wonderful library held many good friends from past dynasties), the notion that all of this could be a force for good lay at the heart of everything he did. In an essay republished in China in 2001, he ascribed to China's perennial philosophy a crucial role as mediator in a chaotic and materialistic age. He was referring to hard-won truths, to genuine wisdom, not to the facile pressing into service of Confucius or Taoism for political ends, of which he took a dim view.

More and more with the passing of the years he spoke with utter simplicity of the need to distinguish between what was genuine or true, *zhen*, and what was false or phony, *jia*. In the end, he insisted, this was all that mattered. Such distinctions came easily, were indeed self-evident, to a man who had practised his own philosophy unpretentiously but consistently all his life, and who seemed in his last years to have become almost luminously transparent. What he said once about the Hawaii-based philosopher Chang Chung-yuan, was eminently true of Liu himself: the Tao was in his face.

In his message of condolence, Kevin Rudd wrote: 'I would like to personally honour his contribution to Sinology, to scholarship, to the Australian University — and of course, therefore, his contribution to Australia.'

Liu Ts'un-yan's passing leaves Australia and the Australian Chinese Studies community bereft of an irreplaceable voice, a voice speaking quietly but eloquently for China in all of its triumphs and failings, at a time when the importance of such a true understanding of China is greater than ever.

John Minford

http://www.anu.edu.au/emeritus/events.html

Cultivating new mathematicians

CSIRO is tackling the critical shortfall in students studying maths in Australia highlighted earlier this week by the Group of Eight Universities (Go8) in a report entitled: *Review of Education in Mathematics, Data Science and Quantitative Disciplines.*

The Go8 found that the state of the mathematical and quantitative sciences in Australia has; "deteriorated to a dangerous level, and continues to deteriorate".

According to a contributor to the Go8's review, Chief of CSIRO Mathematics, Informatics and Statistics Dr Louise Ryan, the findings are sobering.

"CSIRO is doing what it can to improve the situation, from inspiring interest in maths among school students to encouraging Australia's next generation of mathematicians and statisticians," Dr Ryan said.

She said CSIRO has for a long time experienced a lack of talented maths graduates to fill positions left open by retiring staff, let alone a predicted 3.5 per cent annual growth in demand.

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A promising initiative is a new Graduate Fellows program which was developed by

CSIRO Mathematics, Informatics and Statistics. This program will give Honours graduates in maths and statistics a chance to test-drive a research career in CSIRO before deciding whether to go into the workforce or study for a PhD. The first of the new Fellows was due to begin in March.

New programs from CSIRO Education are also addressing several of the report's recommendations in maths education at primary and secondary schools, and maths teaching.

One of these is Maths by Email – a partnership with the Australian Mathematical Science Institute (AMSI), to produce a free, fortnightly email newsletter aimed at school students, parents and teachers with hands-on activities and articles showing the intriguing ways maths can solve problems.

Another program is CSIRO's successful Mathematicians in Schools program, of which Dr Ryan is patron, which matches working mathematicians with schools to talk about their work or help teachers develop practical lesson plans.

Further Information:
Dr Louise Ryan, CSIRO Mathematics, Informatics & Statistics Mb: 0428 116 077

Accommodation sought

Marie Wensing, Director, University Accommodation Services, is still looking for accommodation for students. She's exploring the possibility of staff sharing their home with an incoming student. It is hoped to match and place students consistent with their proposed disciplinary studies and the offerings of the hosts. The matching of host and guest, as well as full support for both parties would be provided by the Australian Homestay Network and anticipated expenses are covered for all participants.

More information is available at http://homestaynetwork.org/public/faqs-for-hosts. If you believe you can assist with accommodation please respond to Uni.accom@anu.edu.au with the Subject Title: Homestay Host? Details of facilities, transport and food arrangements on offer will assist in the matching process.

Anyone for Tennis?

A group (now small) of ANU people (now senior) meet for social tennis at the 'Law Courts' (the tennis courts immediately behind the Molony room) at 7.30 am on Tuesdays and Thursdays; 8am on Sundays. Participants from the ANUEF would be welcome. More information from Don Anderson (6281 2187, don.anderson@anu.edu.au) or Margaret Evans (6247 7815)

ANUEF Lecture diary dates

19 May - Andrew Blakers 'Solar Energy'
16 June – The Vice-Chancellor 'The State of the University Sector'
21 July
18 August – Jack Waterford, editor-at-large of The Canberra Times
15 September – Don Anderson 'The Great Private/Public School Debate'
20 October
17 November
15 December – ANUEF AGM + Christmas Party

Your benefits

Check this web site for a list of benefits enjoyed by members.

http://www.anu.edu.au/emeritus/benefits.html

ANUEF Newsletter out again in June