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The Official Journal of the Ergonomics Society of Australia Inc.

Volume 15, Number 3 (June 2001), ISSN 1033-1875

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Design and Layout: Acute Image Pty Ltd tel: 03 9381 9696

Printer: The Jamison Printer tel: 06 253 1222

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**ESA Mission Statement**

*Promoting systems, spaces and designs for People*
The times they are a’changing! This refrain seems to be heard on all sides and in degrees of praise or condemnation depending on the issue and persons involved. The current book on my bedside table is The Control Revolution by Andrew L Shapiro. In his Introduction he makes the point that “The global reach of the Internet gives individuals an unparalleled degree of access to people, resources, and experiences. All this potential will amount to little, though, if people use technology to ignore their local communities and commitments. We must use the Internet to both explore globally and engage locally.” This echoes the thrust of Thomas Friedman’s book The Lexus and the Olive Tree discussed in a previous editorial. Their deliberations are particularly relevant to the activities of professional associations.

When we consider the time delay between European family and government agencies’ ability to communicate when the first Australian colonies were established, it is easier to understand the sense of isolation that influenced mutual correspondence and behaviours. It was inevitable that ‘local’ in the Australian context implied parochial interests distanced from the hub of intellectual and cultural diversity and its competitive excellence that was available to residents of the northern hemisphere. For two centuries that isolation was a barrier to be overcome slowly by improvements in telecommunications and faster and more reliable and affordable means of world travel. At the start of this new millennium one still has to juggle suitable time zones for ‘real time’ telephone contact with other countries (and even across Australia) but the Internet has introduced a new facility for instant messaging and data mining. This occurs in one’s own choice of suitable time and location — transcending the international time zones and conducted anywhere that allows access to the net. We can truly explore internationally and engage locally in a range of contexts.

How are we exercising this newfound freedom of information? Has it altered our attitude to sharing our experiences? Certainly there are more people inquiring about submitting material to this journal and that is very encouraging. While attending the recent ESA Board Meeting in Brisbane to discuss future developments in relation to Ergonomics Australia, there was some discussion about the relative merits of publishing in local or international journals in terms of maximum academic benefit for a possible promotion scorecard. The international journals started out as local affairs and over many years their intrinsic quality determined their wider relevance. We will not warrant genuine professional credibility (nationally as compared with individually) until our practising ergonomists establish a local presence and pride in publishing. This starts here in our national journal. It may be that students and practitioners must lead the way in this endeavour … there are more of them, than academics, anyway! The articles / reports in this edition are indicative of this trend … and remember, as every issue of the journal also goes on-line, the material is getting international exposure. Reading the content of this issue would indicate that Australian ergonomists are not backward in taking the initiative in global health and safety concerns — not least in such matters such as workplace morbidity and mortality.

This journal began as a national newsletter serving a small and dispersed number of ergonomists in both urban and rural semi-isolation. The later widespread availability of electronic technology to a greatly increased membership has influenced its content and production schedules. The increasing use of e-mailed state newsletters and the web’s aus_ergo facility has diminished the relevance and timing of bi-monthly program updates. It is still relevant to include state continuing professional development programs and news of members’ work-related activity for the benefit of members beyond a local state scene. This gives a sense of national priorities for professional development that may be particularly helpful to people in country areas with limited access to group interaction at metropolitan functions. It may also encourage interstate members to share in branch activities when
visiting away from their home state. However, the journal has been superseded as the primary source of state news. This reality provides an opportunity to help overcome the bi-monthly treadmill of data collection and publication dates (actually a monthly sequence in practical terms) that has troubled many regular contributors. So, beginning with this June issue we are moving to a quarterly journal that will allow time for a proper review process of submitted articles and hence start the process of upgrading the academic credibility of our journal. Other changes are in the pipeline and should take effect from next year … beginning with the March 2002 edition of Ergonomics Australia. The cycle for the remainder of this year will incorporate two more editions after this one — namely in September and December, with copy deadlines on 1 August and 1 November (allowing a Stop Press for Conference snapshot).

Plans are well under way to make the Sydney Conference in November a genuine highlight of national ergonomics involvement. Authors should be busily preparing their review copies of intended papers for the referees and gearing up for their actual presentations. The next issue of the journal will be in good time to whet your appetite with previews of what will be on offer. Whatever your contribution to the ergonomics update, a warm welcome awaits you in the Harbour City!

Shann Gibbs PhD
Editor
Better Integration: 
Bringing Research & Practice Together 
37th Annual Conference 

The Ergonomics Society of Australia Inc. 

www.esa.conf.au 

Expression of Interest for attendance at the Conference 
To receive a registration brochure please send your expression of interest to the Conference Organisers. Contact details below. 

Expression of Interest for Poster Presentation 
While the deadline for submission of abstracts for papers has now closed there is still an opportunity to make a poster presentation at the conference. If you are interested in presenting a poster, please submit an abstract of approximately 250 words outlining the study or project that will be depicted in the poster. 

Please send your expression of interest and abstract to the conference organisers by 30th July 2001, to receive guidelines for your submission. 

Address: 25 Birdwood Street Sylvania NSW 2224 Email: ergonomics@iceaustralia.com Telephone: +61 2 9544 9134 Fax: +61 2 9522 4447 

27–30 November 2001 
Sydney Australia 

Highlighting the necessity of practical application of research in the general community and workplace promoting systems, spaces and designs for people
Dear Colleague,

We are glad to inform you that we are preparing the Second International Conference on Occupational Risk Prevention (www.orp2002.com). It will be held in Gran Canaria, Canary Islands, from February 20th to 22nd, 2002.

ORP’2002 -like the previous, ORP’2000- is being organized by the Industrial Engineering Faculty (ETSEIB) of UPC (Catalonia Technical University), in cooperation with Tampere University of Technology (Finland) and the Center for Industrial Ergonomics of the University of Louisville (U.S.). The co-organizers are the Work & Social Affairs Department and the Tourism & Transport Department of the Autonomous Government of Canary Islands, the Canary Institute for Occupational Safety, Cabildo de Gran Canaria, San Bartolomé de Tirajana City Council, Mutual Cyclops and Mutua de Accidentes de Canarias.

ORP’2000 gathered 648 participants from 41 countries, and featured 18 stands from corporations working in the field of Prevention.

On a scientific level, 4 plenary conferences were realized by representatives from the E.U. and the U.S.; 12 invited lectures were held by scientists from Spain, the Netherlands, Germany, Finland, Norway, Poland, and America. 12 round tables were organized for exchanging viewpoints on Prevention. 177 papers were presented about occupational prevention issues such as Safety and prevention management, Industrial hygiene, Ergonomics, Legal aspects in prevention, Psychosociology, Disability and new technologies, etc.

We can all agree on the success of ORP’2000 and acknowledge the technical excellence and rigour of the papers and studies presented.

Risk prevention remains a main issue in our ever-changing world. Its practitioners are in constant need of updating skills and exchanging experiences. This is why we are preparing the Second International Conference on Occupational Risk Prevention. Both the initial feedbacks received, and the number and scientific quality of the persons that already committed their attendance, make us believe that the Conference will definitely establish itself as a reference, international meeting point in Prevention.

We will be proud that you participate again in ORP, either by presenting papers, displaying stands, by motivating people around you to participate as well, or by any other means you wish.

We are open to any suggestion you may have about the organization of the Conference as it will surely contribute to enrich it.

Hoping to see you soon,

Pedro R. Mondelo  
Chair, ORP’2002  
Centre d’Ergonomia i Prevenció (R + D)/Centre (R&D)  
Ergonomics and Prevention  
UPC (Catalonia Technical University)

In case any of you encounter accessibility problems that need solving (having been involved previously in Federal Government web issues, and working as an Occupational Therapist) I thought I would alert people to the existence of a site which details the variety of tools used for overcoming accessibility:


Brian Hill  
SMS Management & Technology

The site, www.CTAsource.com looks potentially useful if “Cognitive Task Analysis” is your concern.

The Office of Naval Research is funding this work with an aim to promote awareness and use of cognitive task analysis techniques.

CTAsource.com has as its core a digital library of cognitive task analysis materials from brief write-ups describing and comparing methods, to in-depth how-to
documents and full-scale task analysis technical reports. Additionally, through CTA Methods and CTA Case Find links, it will teach you more about cognitive task analysis and help you find documents particularly relevant to a specific system design problem or research challenge.

Working extensively with DTIC and its daughter organization, MATRIS, we’ve compiled an initial digital library of 155 full-text documents and 670 abstracts for additional reports. To search through this listing, select either ‘Standard Search’ or ‘Advanced Search’ below.

In addition, we are working with various publishers to post full-text articles and book chapters. These documents are in various stages of publisher permission, physical (paper) collection, and conversion to electronic form. You can view this more extensive list of references using the Library browse feature.

Robin Burgess-Limerick
robin@bms.uq.edu.au

The ESA Board met in Brisbane in May to further the administration of the Society. Many topics were vigorously discussed, but one thing that characterised Board debate was the positive and unified approach within which matters were progressed.

Your Board members are:

- Jonathon Talbot  NSW  Kerry Jones  WA
- Justin O’Sullivan  QLD  Nic Doncaster  SA
- Stephen Hehir  VIC  Roger Hall  CHISIG
- Jenny Kerr  ACT  Margaret Head  PAB
- David Caple  Immediate past-President
- Margaret Cook  Treasurer
- Roxanne Egeskov  General Secretary
- Jim Carmichael  President

Some of the topics discussed at the meeting were:

1. ESA Website. The site www.ergonomics.org.au will take on its new face in the very near future. It will be formally launched at the Sydney conference. Many thanks to Airdrie Long, Shann Gibbs, Gitte Lindgaard and Kerry Jones for their efforts here.

2. PAB. Margaret Head has been handed the baton from Bob Stacy as Chair of the PAB. Margaret reported on the activities of the PAB and these will be reported on separately.

3. Definition of Ergonomics. The ESA has formally adopted the IEA definition of Ergonomics (including the domains of ergonomics). This definition was reprinted in the ESA Directory that you received earlier this year.

4. ESA Brochures. Two brochures to be published by the Society were advanced at the meeting. One brochure will be targeted at potential members of the Society (ie. those practising ergonomics and students in the field) and the other brochure is targeted at consumers of ergonomics services.

5. Bone and Joint Decade. The Board adopted that the ESA become a participating organization of the Bone and Joint Decade (see the article in this edition of EA).
6. Ergonomics Australia. The future of EA was discussed with Shann Gibbs, the editor, being present for this discussion. There were a number of significant outcomes of this session that I shall allow Shann to write on in greater detail in either this or a future edition of EA.

7. Membership Fee Review. By now you would have received your membership renewal forms. You will have noticed that the Board has been able to limit any membership fee rises to the CPI increases since March 1998. Additionally, it was decided to increase fees automatically by the CPI each year.

8. Tasmanian Branch. One of the Board’s goals is to eventually establish a branch of the ESA in Tasmania. The Victorian Branch will be particularly working with Tasmanian members over the next few years to achieve this goal.

9. Federal, Branch and SIG budgets. Budgets were discussed and will be finalised after a few additional details are determined. In the meantime, the Board is investigating a number of ways to reduce the administrative costs of the Society.

10. Merchandising. The Board has decided to progress the Victorian Branch initiative in developing and marketing a small selection of items eg. ESA polo shirts and ESA lapel pins, to its members. More about this will be advertised in the near future.

Jim Carmichael
President ESA

BONE AND JOINT DECADE

Jim Carmichael
President ESA

At the May 2001 ESA Board meeting it was decided that it was appropriate for the Ergonomics Society of Australia to become a participating organization of the Bone and Joint Decade.

The ESA National Executive recently became aware of the Bone and Joint Decade and the synergies that both organizations share at a Queensland Branch professional development function.

Information is included here from the web page of the Bone and Joint Decade.

Background

The Bone and Joint Decade is an independent global non-profit organization whose mission is to improve the health related quality of life for people affected by musculoskeletal disorders worldwide in the decade of 2000-2010. It is the umbrella organization by which over 46 National Action Networks and over 750 professional medical societies, patient advocacy groups, governments, industry, research institutions and publications partner to effect change by:

1. raising awareness of the growing burden of musculoskeletal disorders on society;
2. empowering patients to participate in their own care;
3. promoting cost effective prevention and treatment; and
4. advancing understanding of musculoskeletal disorders through research to improve prevention and treatment.

On January 13, 2000, the Bone and Joint Decade was formally launched at the headquarters of the World Health Organization in Geneva, Switzerland. This comes on the heels of the November 30, 1999 endorsement by the United Nations. UN Secretary General, Kofi Annan said, “There are effective ways to prevent and treat these
disabling disorders, but we must act now. Joint diseases, back complaints, osteoporosis and limb trauma resulting from accidents have an enormous impact on individuals and societies, and on healthcare services and economies.”

The goal of the Bone and Joint Decade is to improve the health-related quality of life for people with musculoskeletal disorders throughout the world. These disorders are the most notorious and common causes of severe long-term pain and physical disability, affecting hundreds of millions of people across the world. The Decade aims to raise awareness and promote positive actions to combat the suffering and costs to society associated with musculoskeletal disorders such as joint diseases, osteoporosis, spinal disorders, severe trauma to the extremities and crippling diseases and deformities in children.

The goal will be achieved by:

- Raising awareness of the growing burden of musculoskeletal disorders on society.
- Empowering patients to participate in their own care.
- Promoting cost-effective prevention and treatment.
- Advancing understanding of musculoskeletal disorders through research to improve prevention and treatment.

No one single organisation alone can accomplish the desired benefits for the patient or his or her family. The Decade is a multi-disciplinary, global campaign that will implement and promote initiatives in all parts of the world. These will be developed in partnership with appropriate patient, professional and scientific organisations, companies, healthcare providers, governments and non-government organisations in consultation with global and regional stakeholders.

Australia

Australia endorsed the BJD in October 1999. A secretariat has been established in Brisbane. The Bone and Joint Decade was launched in Australia with a Scientific Meeting at which over 250 professionals and patients were present followed by a dinner with nearly 150. The Australian Minister for Health and Aged Care, Dr Michael Wooldridge, launched the Decade pledging Australian Government support for its activities. Health professionals joined patients during the Scientific Meeting to talk about the scientific and personal issues involved in musculoskeletal disease. Sir Gustav Nossal gave the after dinner speech later that evening and stressed the enormous opportunities there were for patients with rheumatic diseases to participate in their own management and also outlined the great advances that would occur in rheumatology/orthopaedics as a consequence of biotechnology and the human genome project.

The Steering Committee is developing further plans for the Decade.

Participating Organisations in Australia:

ACROD
Asia Pacific Society for Surgery of the Hand
Arthritis Foundation of Australia
Association of Research Circulation Osseus
Australian and New Zealand Bone and Mineral Society
Australian and New Zealand Orthopaedic Research Society
Australian Orthopaedic Association
Australian Orthopaedic Nurses Association and Allied Help
Australian Rheumatology Association
Matrix Biology Society of Australia and New Zealand
Osteoporosis Australia
Western Pacific Orthopaedic Society

The 4 peak organisations - Australian Rheumatology Association, Arthritis Foundation of Australia, Australian Orthopaedic Association and Osteoporosis Australia will form the initial Executive. Professor Peter Brooks will chair this Executive for the next two years.
**Participating Organisations**

A participating organization is an organization or an institution that has signed a declaration or declared a written interest to join the Bone and Joint Decade.

**There are no federated societies of the International Ergonomics Association that are currently supporting the aims of the Bone and Joint Decade as a participating organization. The aims of the Bone and Joint Decade are consistent with the aims of the Ergonomics Society of Australia (within the domain of Physical Ergonomics, as defined by the IEA and the ESA).**

Further information from the Bone and Joint Decade web site (www.boneandjointdecade.org).

**Additional Information**

**Beginnings**

The Bone and Joint Decade began with an inaugural consensus meeting in Lund, Sweden in April 1998 at which time its goal and objectives were agreed. An International Steering Committee of fifteen experts from various geographical regions and disciplines guide the Bone and Joint Decade. The diversity of the ISC and its staff includes rheumatologists, researchers, orthopedic surgeons, patient advocates, trauma, rehabilitation, and emergency medicine specialists from Japan, United States, Sweden, United Kingdom, Netherlands, Brazil, France, Switzerland, Germany, and the Sultanate of Oman. The staff consists of one full-time secretariat (Sweden), two part-time managing directors (Director of Development in Germany and Spokesperson and Director of Strategic Relations in the United States) and a technical engineer (Sweden). The ISC meets monthly via teleconference and/or face-to-face meetings to provide hands-on guidance to the initiative.

The Bone and Joint Decade is headquartered in Lund, Sweden under the leadership of the ISC Chairman, Prof. Lars Lidgren, MD, who is Chairman of the Department of Orthopedics at the University of Lund.

The initial outreach calls for a 3-part strategy:

1. the endorsement of the Bone and Joint Decade by patient and health professional organisations throughout the world;
2. the call for coordinators to step forward to coalesce the endorsing organisations within nation borders into National Action Networks to leverage their national priorities within the framework of the Bone and Joint Decade umbrella and mission; and
3. the call for broad dissemination about the Decade through health professional journals around the world.

**Frequently Asked Questions**

**What is the Bone and Joint Decade?**

The goal for the Bone and Joint Decade is to improve the health-related quality of life for people with musculo-skeletal disorders throughout the world. The Bone and Joint Decade will do this through the following aims:

- To reduce the social and financial cost of musculo-skeletal disorders to society
- To improve prevention, diagnosis and treatment for all patients.
- To advance research on prevention and treatment.
- To empower patients to make decisions about their care.

No single organisation alone can accomplish the desired benefits for the patient. The Bone and Joint Decade is a multi-disciplinary initiative involving everyone concerned with the care of bone and joint disorders.

**How Did It Come About?**

The initiative was instigated by a group of healthcare professionals who felt that the significant impact from bone and joint disorders on society, the healthcare system and the individual, needed to be addressed on an international level, with particular focus on the use of resources. The idea began following the success of the Decade of the Brain (1990-2000), which served to raise
awareness of the impact of brain disorder and led to significant scientific advances. An inaugural consensus meeting was held in Sweden in April 1998, which culminated in a proposal for the Decade of the Bone and Joint from 2000 to 2010 as well as the formation of the International Steering Group, consensus document and a plan of continued work.

What diseases does the Bone and Joint Decade relate to?

The Bone and Joint Decade encompasses diseases associated with musculo-skeletal disorders such as joint diseases, osteoporosis, osteoarthritis, rheumatoid arthritis, low back pain, spinal disorders, severe trauma to the extremities, crippling diseases and deformities in children.

How is the Bone and Joint Decade team structured?

The International Steering Group agreed on a simple coordinating structure, to ensure that it provides support to local initiatives and is fully representative of different geographic regions and disciplines.

An International Steering Group of 13 members has been appointed (including both professional and patient organisations). The Steering Group members are:

- Professor Lars Lidgren, Sweden - Chair
- Mary Anderson, Switzerland
- Professor Bruce D Browner, USA
- Professor Liana Euller-Ziegler, France
- Dr Edward D Harris Jr., USA
- Professor Mieke Hazes, The Netherlands
- Dr Wahid al-Kharusi, Oman
- Armin U Kuder, Esq., USA
- Professor Nicolas E Walsh, USA
- Professor Anthony D Woolf, UK
- Professor Hiroshi Yamamoto, Japan
- Dr Kristina Åkesson, Sweden
- Director of Development
- Dr Karsten Dreinhöfer, Germany
- Director of Strategic Relations
- BJD Spokesperson
- Amye L Leong, MBA

National Action Networks have been established in 46 countries, comprising multidisciplinary organisations (patient and professional bodies, research organisations, scientific journals and other stakeholders in musculo-skeletal conditions), to set up and run national programs.

A national coordinator from each National Action Network forms a National Coordinators Group to liaise with the Steering Group. Thirty-eight additional coordinators represent their countries and are in the process of setting up a National Action Network.

How Can National Governments Show their Support?

Governments can show their support in the following ways. The highest level would be a proclamation by the President or Prime Minister of a country. The next level would be to sign an endorsement using the specially designed Bone and Joint Decade Declaration and the third level when a Ministry of Health declares that it recognises musculo-skeletal disorders as an important and growing problem and that they support the initiative. Thirty-four countries have now officially endorsed the Bone and Joint Decade.

Australia is a supporting government.

What Is The Burden, Prevalence and Incidence of Bone and Joint Diseases?

Burden of disease refers to a combination of the incidence/prevalence, impact (in terms of quality of life and disability), and cost of musculo-skeletal disorders to the individual and to society. A working group from the International Bone and Joint Decade Steering Committee, in collaboration with the World Health Organisation, is reviewing and collating data on the burden of musculo-skeletal conditions globally, called the Bone and Joint Decade Monitor Project. The group
will also address the present provision of musculo-skeletal care, the ideal provision of care, and the costs and priorities for change in the care of patients with musculo-skeletal conditions.

Until international statistics are available, the following facts illustrate the global severity of these conditions.

Facts that illustrate severity on a global scale:

- Across the world, musculo-skeletal conditions affect hundreds of millions of people, at a huge cost to society (estimated at $215 billion per year in the USA alone).
- Worldwide, musculo-skeletal conditions are the most common causes of severe long-term pain and physical disability.
- In the USA alone, musculo-skeletal conditions are a leading cause of disability, accounting for more than 131 million patient visits to healthcare providers annually. Joint diseases account for half of all chronic conditions in people aged 60 and over.
- Road traffic injuries are increasing precipitously, and by the year 2010, are estimated to account for as much as 25% of all health care expenditures in developing nations.
- Fragility fractures have doubled in the last decade. Forty per cent of all women over 50 years will suffer an osteoporotic fracture. The number of hip fractures will rise from about 1.7 million in 1990 to 6.3 million by 2050 unless aggressive preventive programs are started.
- Osteoarthritis accounts for half of all chronic conditions in persons aged over 65. Some 25% of people over the age of 60 have significant pain and disability from osteoarthritis. The economic consequences of osteoarthritis are enormous, for example, it is rated the highest cause of work loss in USA, despite being a condition that causes most problems to populations after retirement age.
- Low back pain is the most frequent cause of limitation of activity in the young and middle aged, one of commonest reasons for medical consultation, and the most frequent occupational injury. Back pain is the second leading cause of sick leave.

- In Sweden health economists have calculated the society cost of illness for musculoskeletal disorders to be by far the highest even compared to brain and mental diseases added together.
- The number of individuals over the age of 50 is expected to double between 1990 and 2020. In Europe by 2010, for the first time, there will be more people over 60 years of age than people less than 20 years of age, resulting in a huge escalation of treatment costs.

What is the Effect of Bone Diseases on Morbidity?

Musculo-skeletal disorders are a major cause of morbidity throughout the world with a substantial influence on health and quality of life. This burden is not well quantified in some countries and there is insufficient information of the impact of these conditions on health at present — identifying this burden is a major activity of the Bone and Joint Decade.

References:


THOSE WHO DIE AT WORK

Elizabeth Bunker
Chair, Queensland Branch

At an Ergonomics week session in 1998 Geoff Macdonald reported on the ILO statistics relating to deaths at work. They were such a surprise to me that I wondered how many other people were unaware of the figures given by Dr Jukka Takala, Chief of the International Labour Organisation’s Health and Safety program. Speaking on April 12 1999, he reported that annual global figures show that, in comparison with the 502,000 people, who die during wars, 1.1 million die at work. The ILO has designated 28th April as the International Day of Mourning for those who die at work.

I wondered how this information could be more widely acknowledged. I believe that when human beings acknowledge that there is a problem, then many brains are trained on the search for solutions. The minds and hearts of Ergonomists are trained on the solutions but so often come up against a blank wall of apathy. It disappoints me to read the publications from UK that still complain about Ergonomics not being widely understood. The Health and Safety aspects are seen as dry, time consuming, costly and boring. The results of not paying attention to such matters have devastating consequences.

Since I graduated in 1978, from Loughborough, I have also been disappointed that the churches, in the main, or at any rate the variety that I attend, seem to have little interest in the world of work. Family values are a very laudable goal, but with most people spending most of their lives at work, I would like to hear the odd sermon on the subject. When at Loughborough and faced with an assignment on the subject of alienation from work, I checked the bible and found little on the subject to assist in my task. I subsequently complained about this to an extremely erudite (and irritating) clergyman I know. My clergyman friend sat down and wrote me six pages on the subject! One reference was read by the General Secretary of the Queensland Council of Unions as the first reading at a special service held in Brisbane this year. It is one that I had never heard read in church before.

Having some useful contacts with the Anglican Diocese of Brisbane, I was given a great deal of encouragement in my view that it seemed appropriate that a commemoration service should be held in the Cathedral. I was pointed to Newcastle Cathedral that had held a service to relocate the BHP memorials to this Cathedral, when the steel works closed down. I checked whether the Ergonomics Society branch up here would support the idea. Jim Carmichael, our National President, volunteered support from the Queensland Branch of ESA and the Unions pledged their support too.

The aim was to have a short service that people could attend during their lunch-time. I sent an invitation to the Governor of Queensland and he agreed to come. I’m sure this gave the whole thing a feeling of significance that we might not have achieved otherwise. The point was made that the date was uncomfortably close to Anzac Day. It was important, however, to link it with the International Day of Mourning for those who die at work — set as 28 April. We invited the Union choir, members of Queensland ESA sent invitations to CEOs, Members of Parliament and everyone else on their mailing list. The Archbishop agreed to preside. We sent the message through all the networks that we had access to. The one inaccessible area involved relatives of those who had died at work. Interestingly, the Courier Mail would have done a piece if I could have trotted out a bereaved person. I was glad that I couldn’t. We know, however, that relatives and friends of those who had been bereaved attended the service. One group brought a photo and the work shirt belonging to a young man who had died recently.

Come the day, we had no idea whether or not people would come. I was asked how many were expected but there was no means of knowing the answer. The unions had said that they would come with banners + men off building sites in town, but we had no idea of overall numbers. I had involved as many people as possible in the actual service so we knew that they would be coming!
They came! Nearly 600 people in attendance! Banners all over the Cathedral! All agreed that it was a wonderful, moving and memorable event. The speaker, John Crittal, was excellent. MPs from as far afield as Cairns phoned to apologise if they were unable to come — about twelve MPs did attend. The Premier and the Lord Mayor were represented. I said to the Archbishop, next year in Canberra? He said - right on - or words to that effect. I am starting to make contact with those who can make it happen. I have also made contact with someone in NSW and hope to reach out to the other states for next year. Already there has been an agreement to hold a service in Canberra in 2002 and to make this an annual event across Australia.

We lose 90 people a year in the workplace in Queensland: officially unremarked, unremembered, and with little in the way of general effort to change those figures — excluding efforts by members of the Health and Safety professions, of course.

**CONCEPT OF COMPUTER GENDER**

An English teacher was explaining to his students the concept of gender association in the English language. He noted how hurricanes at one time were given only female names, and how ships and planes were usually referred to as “she.” One of the students raised her hand and asked, “What gender is a computer?”

The teacher wasn’t certain. So he divided the class into two groups: males in one, females in the other, and asked them to decide if a computer should be masculine or feminine. Both groups were asked to give four reasons for their recommendations.

The group of women concluded that computers should be referred to as masculine because:

- in order to get their attention, you have to turn them on;
- they have a lot of data but are still clueless;
- they are supposed to help you solve your problems, but half the time, they ARE the problem; and
- as soon as you commit to one, you realize that, if you had waited a little longer, you could have had a better model.

The men, on the other hand, decided that computers should definitely be referred to as feminine because:

- no one but their creator understands their internal logic;
- the native language they use to communicate with other computers is incomprehensible to everyone else;
- even your smallest mistakes are stored in long-term memory for later retrieval; and
- as soon as you make a commitment to one, you find yourself spending half your pay cheque on accessories for it.

*Shann Gibbs (from an anonymous source).*
Ergonomic problems self-reported by workers in a nursing home in Queensland, Australia.

Derek Richard Smith\textsuperscript{1} BSc, MHSsc.
Ron Atkinson\textsuperscript{2} BSc (Hons), PhD.

Abstract
To investigate ergonomic problems in nursing home workers we sent a structured questionnaire to a large nursing home complex in Queensland, Australia. Questions asked included age, sex, height, weight, shiftwork details, duration of current employment, nature of current employment, the presence of work-related injury and pain during the past 12 months, the phase lag before the onset of injury and sick leave details. A total of 140 employees responded, the majority of whom were female (85.0%), married (65.7%) non-smokers (80.0%). Patient handling was regularly undertaken by 43.6% of all staff, injury was reported by 17.1% and pain by 47.1% of all employees within our study. The presence of injury was significantly related to washing the patient and changing the patient’s bed, with a 2.5 fold increase calculated for both cases (washing: OR 2.5, 95%CI 1.0-6.3; changing bed: OR 2.5, 95%CI 1.0-6.2). Washing the patient represented an additional risk of experiencing pain, with a 2.6 fold increase noted (OR 2.6, 95%CI 1.3-5.3). Pain was also correlated with changing the patient’s clothes (OR 2.1, 95%CI 1.0-4.3) and moving the patient (OR 2.1, 95%CI 1.0-4.2). Various demographic items such as age, sex, height and weight incurred no statistically significant risk factors. This study suggests that washing nursing home patients, changing their clothes and moving them increase the risk of developing pain and injury among staff. The prevalence of certain injuries and symptoms are also different from previous reports.

Key words Ergonomics, Self-reported, Injury, Pain, MSD, Nursing home, Australia

Introduction
Musculoskeletal disorders (MSD) are a significant concern for many health care workers (HCW), particularly in situations where the regular physical handling of patients is required. Among industrialised societies, the percentage of elderly citizens is continually rising owing to improved standards of public health and general living conditions. Caring for incapacitated elderly people may be particularly hazardous as most nursing home patients depend heavily on nursing care for almost all their daily activities. Although many nursing home HCW are at risk from pain and injury during employment, few authors have investigated these ergonomic issues within the nursing homes of Australia. Therefore, we considered it appropriate to conduct an ergonomic investigation of nursing home workers (NHW) within the fast growing region of Queensland, Australia.

Method
For this study we recruited 140 NHW from 8 sections of a large nursing home complex in Queensland, Australia. This complex provides care for a wide range of patient categories, including very frail patients and those with significant motor disturbances or dementia. Each section was sent questionnaires for staff to complete and return individually. Questions included age, sex, height, weight, shiftwork details, duration of current employment, nature of current employment, occurrence of MSD within the past 12 months and the phase lag between beginning work and the onset of MSD. Sick leave details arising from MSD were also obtained. The surveys were collected approximately one week after distribution and staff members interviewed when further clarification was required. Data was entered on Microsoft Excel before analysis with JMP Statistical software (SAS Labs, 1995). Analysis included descriptive statistics for the prevalence of MSD in conjunction with multiple logistic regression of staff variables to determine potential workplace risk factors. Odds ratios (OR) were calculated to establish risk factors, with $p$ values above 0.05 regarded as insignificant.
Results

We analysed a total of 140 employees, the majority of whom were female (85.0%), married (65.7%) non-smokers (80.0%). Over half reported drinking alcohol regularly (58.6%). Their age ranged from 16 to 65 years with an average age of 44.8 years (SD 10.4). The mean height of staff was 165.6cm (SD 9.2), weight 71.9kg (SD 14.9) and Body Mass Index (BMI) 26.7 kg/m² (SD 6.3). Most workers were employed on a part-time basis (80.0%) and worked day shifts (95.0%). Their working week ranged from 6.5 to 84 hours with an average of 31.6 hours (SD 13.0). Their monthly working schedule ranged from 2 to 34 days with a mean of 16.7 days (SD 5.7). A large proportion of staff had remained in their current job for more than 1 year (77.9%), with an average career length of 6.1 years (SD 6.3).

Table 1. Staff demographics

<table>
<thead>
<tr>
<th>Demographic items</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day shift worker</td>
<td>123</td>
<td>95.0</td>
</tr>
<tr>
<td>Female gender</td>
<td>119</td>
<td>85.0</td>
</tr>
<tr>
<td>Part-time worker</td>
<td>112</td>
<td>80.0</td>
</tr>
<tr>
<td>Currently married</td>
<td>92</td>
<td>65.7</td>
</tr>
<tr>
<td>Drinks alcohol</td>
<td>82</td>
<td>58.6</td>
</tr>
<tr>
<td>Smokes tobacco</td>
<td>28</td>
<td>20.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major characteristics</th>
<th>mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (y)</td>
<td>44.8</td>
<td>10.4</td>
</tr>
<tr>
<td>Height (cm)</td>
<td>165.6</td>
<td>9.2</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>71.9</td>
<td>14.9</td>
</tr>
<tr>
<td>BMI (kg/m²)</td>
<td>26.7</td>
<td>6.3</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>31.6</td>
<td>13.0</td>
</tr>
<tr>
<td>Days worked per month</td>
<td>16.7</td>
<td>5.7</td>
</tr>
</tbody>
</table>

* percentage of all staff (N=140)

The predominant employment category of workers in our study was nursing, comprising almost half the total (48.5%). Other significant categories included care assistants (21.2%), food service employees (16.2%) and administrative officers (14.1%). Education levels varied from primary school to university training, however the majority had completed high school (71.1%); which requires 12 years of schooling in Australia. Technical college was the next highest category (15.6%), followed by university (11.1%) and primary school (2.2%).

Patient handling was regularly undertaken by 43.6% of all staff, with an average of 15.9 patient contacts (SD 22.2) per day. The mean number of hours spent working beside the patient’s bed was 4.4 hours (SD 2.3) daily. Patient handling tasks were divided into four major categories, moving the patient (37.9%) being slightly more common than changing the patient’s clothes (36.4%), changing their bed and washing the patient (both 35.7%). Some employees (30.0%) were required to complete all 4 tasks every day.

Table 2. Employment description

<table>
<thead>
<tr>
<th>Job description</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing</td>
<td>48</td>
<td>48.5</td>
</tr>
<tr>
<td>Care assistant</td>
<td>21</td>
<td>21.2</td>
</tr>
<tr>
<td>Food service</td>
<td>16</td>
<td>16.2</td>
</tr>
<tr>
<td>Administration</td>
<td>14</td>
<td>14.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education Level</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school</td>
<td>96</td>
<td>71.1</td>
</tr>
<tr>
<td>Technical college</td>
<td>21</td>
<td>15.6</td>
</tr>
<tr>
<td>University</td>
<td>15</td>
<td>11.1</td>
</tr>
<tr>
<td>Primary school</td>
<td>3</td>
<td>2.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patient handling</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move patient</td>
<td>55</td>
<td>37.9</td>
</tr>
<tr>
<td>Change clothes</td>
<td>51</td>
<td>36.4</td>
</tr>
<tr>
<td>Change bed</td>
<td>50</td>
<td>35.7</td>
</tr>
<tr>
<td>Wash patient</td>
<td>50</td>
<td>35.7</td>
</tr>
</tbody>
</table>

* percentage taken from staff responding to the question
MSD occurred in varying amounts among staff and included the distinct categories of injury and pain. Injury was reported by 17.1% and pain by 47.1% of all employees within our study. Almost one-tenth (9.2%) suffered both in the last 12 months. Injury was highest in the shoulder (4.3%), followed by the lower back (3.6%) and the neck, hand and knee (2.1% each). Pain was most commonly experienced in the lower back (23.6%), shoulder (20.7%) and the neck (15.7%). The phase lag between commencing work and receiving an MSD ranged from 2 to 240 months, with an average of 53.1 months (SD 51.0). Sick leave was taken by 13.6% of staff in the last 12 months, with a range of 1 to 90 days and a mean of 20.5 days off work (SD 26.6).

Figure 1. Injury and pain prevalence by location

Table 3. Injury and pain prevalence by location

<table>
<thead>
<tr>
<th>Location</th>
<th>Injury</th>
<th>Pain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n)</td>
<td>%*</td>
</tr>
<tr>
<td><strong>Trunk</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neck</td>
<td>3</td>
<td>2.1</td>
</tr>
<tr>
<td>Shoulder</td>
<td>6</td>
<td>4.3</td>
</tr>
<tr>
<td>Lower back</td>
<td>5</td>
<td>3.6</td>
</tr>
<tr>
<td><strong>Arms</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elbow</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Wrist</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Hand</td>
<td>3</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Legs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calf</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Knee</td>
<td>3</td>
<td>2.1</td>
</tr>
<tr>
<td>Ankle</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* percentage of all staff \((N=140)\)

Statistical analysis of staff MSD and workplace issues revealed various risk factors, with odds ratios ranging from 2.1 to 2.6. Demographic items such as height, weight age, sex and cumulative length of employment showed no correlation with MSD. The presence of injury was significantly related to washing the patient and changing the patient’s bed, with a 2.5 fold increase for both cases (washing: \(OR = 2.5, 95\% CI 1.0-6.3\); changing bed: \(OR = 2.5, 95\% CI 1.0-6.2\)). Washing the patient represented an additional risk of experiencing pain, with a 2.6 fold increase noted (\(OR = 2.6, 95\% CI 1.3-5.3\)). Pain was also correlated with changing the patients’ clothes (\(OR = 2.1, 95\% CI 1.0-4.3\)) and moving the patient (\(OR = 2.1, 95\% CI 1.0-4.2\)).
Table 4. Statistical associations with injury and pain

<table>
<thead>
<tr>
<th></th>
<th>p</th>
<th>X2</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Injury</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wash patient</td>
<td>&lt;0.05</td>
<td>4.13</td>
<td>2.5</td>
<td>1.0 - 6.3</td>
</tr>
<tr>
<td>Change bed</td>
<td>&lt;0.05</td>
<td>4.13</td>
<td>2.5</td>
<td>1.0 - 6.2</td>
</tr>
<tr>
<td>Change clothes</td>
<td>&lt;0.05</td>
<td>3.79</td>
<td>2.4</td>
<td>0.9 - 6.0</td>
</tr>
<tr>
<td>Move patient</td>
<td>&lt;0.05</td>
<td>1.78</td>
<td>1.8</td>
<td>0.7 - 4.5</td>
</tr>
<tr>
<td><strong>Pain</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wash patient</td>
<td>&lt;0.01</td>
<td>6.73</td>
<td>2.6</td>
<td>1.3 - 5.3</td>
</tr>
<tr>
<td>Change clothes</td>
<td>&lt;0.05</td>
<td>4.33</td>
<td>2.1</td>
<td>1.0 - 4.3</td>
</tr>
<tr>
<td>Move patient</td>
<td>&lt;0.05</td>
<td>4.35</td>
<td>2.1</td>
<td>1.0 - 4.2</td>
</tr>
<tr>
<td>Change bed</td>
<td></td>
<td>2.43</td>
<td>1.7</td>
<td>0.9 - 3.5</td>
</tr>
</tbody>
</table>

* no significant statistical association (p > 0.05)

Discussion

The high percentage of females within our study (85.0%) was similar to previous international reports. The low rate of tobacco smoking (20.0%) and high prevalence of occasional alcohol consumption (58.6%) reflected past studies of Australian HCW. The proportion of married NHW (65.7%) was higher than among Japanese HCW (24.2%), although this probably relates to a lower average age of staff between the two studies (44.8 vs. 29.5 years in Japan). The average height of employees within this study (165.5 cm) was similar to previous research conducted in the Netherlands (168.8 cm), although their weight (71.9 vs. 65.4 kg) and BMI (26.7 vs. 23.2 kg/m²) was higher than for the Dutch study. We believe this discrepancy might reflect the higher average age of our workers when compared to the Dutch research (44.8 vs. 29.3 years in Holland). Subjects within this study worked similar weekly hours as the Dutch (31.6 vs. 33.0 hours). Conversely, with an employment duration of 6.1 years our staff had remained in their profession for shorter time periods than Japanese (7.7 years), Italian (8.8 years) or Dutch (9.5 years) HCW.

Other studies suggest that most nursing home care in Australia is performed by staff with limited formal qualifications, often because many NHW view their job as an adjunct to family income rather than a long-term career choice. Our study revealed a low prevalence of formally educated NHW, with only 48.5% working as nurses and most (71.1%) progressing their education no further than high school.

Manual handling is a common and regular component for HCW involved in aged care. Almost half the employees surveyed during this study were involved in regular manual handling tasks (43.6%), with ‘patient moving’ the most frequent activity at 37.9%. Previous studies have indicated a much higher rate of patient moving tasks among American (70.0%) and Japanese (66.2%) HCW. The Japanese study reported the percentage of their staff undertaking manual handling tasks to be higher than ours (changing the patient’s clothes: 43.7% vs. 36.4%, changing the patient’s bed: 87.1% vs. 35.7% and washing the patient: 79.3% vs. 35.7%). An Italian study also found that manual handling was a frequent task for at least 60.0% of their HCW. We suspect the higher rates documented during previous studies relate to the finer targeting of only those employees involved in regular patient contact. On the other hand, our research targeted all staff within the study location regardless of their expected patient contact frequency.

MSD represents a significant concern for HCW, particularly in situations where the regular physical handling of patients is required. Musculoskeletal injury is known to affect certain HCW at greater rates than other social service employees, and is most likely the result of physically stressful tasks. Work-related injury was reported by almost one-fifth (17.1%) of all NHW during this study, most commonly in the shoulder (4.3%), lower back (3.6%), neck (2.1%) hand (2.1%) and knee (2.1%). Musculoskeletal pain on the other hand affects almost every HCW category and may be one of the first signs of an impending injury. During this study, musculoskeletal pain was reported at far higher rates than injury, with almost half of all staff (47.1%) experiencing some form of pain within the last year. The most important areas were the lower back (23.6%), shoulder (20.7%) and neck (15.7%). Similar MSD pain rank structures (back, shoulder, neck) have been reported in Japanese and Dutch studies, although generally at much higher prevalence rates. Prevalence rates in the Japanese HCW for example were...
more than double the magnitude revealed during our research (lower back 54.7%, shoulder 42.8% and neck 31.3%). We believe that this result once again reflects their more specific focus on only those HCW involved in manual handling when compared to our more generalised study. The average duration of sick leave among our subjects (20.5 days) was similar to that seen within Italian HCW (22.1 days).

Statistical associations for MSD injury and pain are known to include age, duration of employment, sporting activity, work postures, work control, work organisation and patient conditions. Despite this, statistical analysis of our data revealed no significant correlation between any demographic items and either injury or pain among NHW. Certain manual handling tasks were however found to contribute significant risks for injury and pain. Washing the patient or changing their bed both increased the risk of injury 2.5 fold during our research (washing: OR 2.5, 95%CI 1.0-6.3; changing bed: OR 2.5, 95%CI 1.0-6.2). Increased risk from washing patients has been previously demonstrated in Japanese HCW, although at a lower level (OR 1.1). Washing the patient represented an additional risk of experiencing pain in our study, with a 2.6 fold increase noted (OR 2.6, 95%CI 1.3-5.3). Pain was also correlated with changing the patient’s clothes (OR 2.1, 95%CI 1.0-4.3) and moving the patient (OR 2.1, 95%CI 1.0-4.2). These results are supported by the Japanese study, where risk factors were also revealed for these three activities. A risk factor of 1.3 has also been associated with moving patients during a study of HCW within the United Kingdom. Why our risk factors are several degrees of magnitude higher than those of previous studies is difficult to explain. It is possible that our broad demographic focus combined with the questionnaire’s distinctive manual handling categories to produce a non-representative statistical artefact. Alternatively, the risk factors uncovered during this study may be indicative of genuine hazards among Australian NHW that were previously obscured.

**Conclusion**

We acknowledge that this study suffered certain limitations, most significantly the small sample size and relative geographical isolation. As we were confined to Queensland, our results may not accurately reflect the entire Australian nursing home situation. Nonetheless, we have documented many important ergonomic and demographic factors associated with NHW within one region of Australia. Further research is required to elucidate some of these emerging issues.

**References**

10. Larese & Fiorito, op. cit.
CONFESSIONS OF AN OLD CPE

(Do) Neil Adams
A.K.A. Grandpa Adams.

At the last meeting of the CPE Board which I was able to attend (I missed the one following because of another commitment), it was agreed that collectively we CPEs should be seen to be making a (hopefully significant) contribution to such Society activities and functions as the journal/newsletter — Ergonomics Australia. As one of the oldest, and hence the more likely to shuffle off this mortal coil before many others in the Society, it seemed reasonable that I should make one of the earlier contributions. Of course, it should be noted that over the last decade, since the inception of the CPE category, members in that category have been quite prominent in such positions as Society Presidents, Branch Chairs, Newsletter Editors, conference organizers and other Society-benefiting roles. Having myself edited the newsletter for four years when it was a much less professional publication that Robin Burgess-Limerick and more recently Shirleyann Gibbs have been turning it into, I have probably said about all that I can usefully say about the importance of our Society developing and presenting a more professional image. Nevertheless, I make bold to recount the following reminiscences and confessions.

It has been said, by many with better credentials than I could aspire to, that the category of CPE was invented to enable those who scratch a living from consultancy to tie the label to their foreheads and then stick their heads above the crowd of “ordinary” ergonomists. The CPEs would then be more easily seen, identified by, and hopefully then regarded by, the general population of

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Vol 15, Number 3, June 2001
prospective clients as being more worthy of hire. In the mid to late 80s, when the heavy preparatory work was being done by Richard Rawling and a small coterie of members who saw genuine benefit to the Society in having such a category of membership, there was some very solid opposition to the whole concept of an “elite” category of members.

Nevertheless, the Society finally affirmed the desirability of this grade of membership and some rather loosely defined criteria for selection/election to CPEship were drawn up. (These have since undergone refinement and clearer definition, and face still further development). Having already been a member of the Society for almost 20 years; having given the odd (some would say extremely odd) conference paper; and having stuck my rather generously built nose into a variety of Society affairs, I sought nomination to this category and managed to find a couple of senior members who didn’t know me well enough to refuse to support my application. Consequently, I was one of that small crew of ten or a dozen ergonomists who lined up at an Annual Conference to receive from the hands of the president the first batch of CPE certificates.

At the time I was moving from the semi-academic world into the much more remunerative world of consultancy. I say “semi-academic” because I had never really felt myself to be an academic. The prospect of endlessly writing essays (for which read research reports), based on my own or preferably on students’ research, and submitting those to “peer review” (read what you will into that term) appalled me. Possibly I was jaundiced by my earlier experiences in Departments of Psychology from which I saw so much in the way of recycled garbage being accepted for publication, with the author – the Aspro or Senior Lecturer who had supervised (occasionally looked in on and approved) the research – adding another title to the list in his/her CV.

I must acknowledge that it was somewhat rewarding to actually have a paper published in a journal of some repute (which happened only a quarter of a century ago), but having “been there and done that” I did not feel compelled to continue doing it. However, this attitude has put me into something of a conflict between what I now perceive as a responsibility to the profession or, more specifically, to the Australian Ergonomics Society on the one hand and on the other, my slothful and self interested reluctance to prepare papers for submission to acceptable journals. I have to admit that I have no need in terms of professional advancement to “publish or perish”. That pressure was left behind twenty years ago, and most certainly and completely ten years ago when I resigned from University work. But as a CPE I feel increasingly the urge to make a more effective contribution to the development of, and public awareness and use of, ergonomics than I have been doing.

I am ill at ease (this is a significant part of my confession) about my poor networking abilities and, worse, my lack of interest in and inclination towards networking. I can recall that in some of my editorial comments, made nearly a decade ago in the early days of the CPE system, advocating as one of the advantages of that system the potential for higher level networking and for those who were CPEs to be available for encouragement and mentoring of those many members who should be aspiring to and working towards that “exalted” status. Perhaps these few words may encourage those of you who do retain more youthful enthusiasm for proselytising and mentoring than I to put some effort into modelling the ideal ergonomist and helping in the development of those who are less advanced in the profession.

So, to be specific, what are some of the ways in which we can be of assistance and value in the triple sense of: (i) To the profession and science of ergonomics; (ii) To our society, the ESA; and (iii) To other members as individuals, and particularly as prospective CPEs?

I ask you, and I ask you to ask yourselves, what are your own personal answers to the questions above?

I’ll close with a reference to networking. It is not true, as some may remark, that my email address includes “Doctor Stop” and that I never read my email. I look at it regularly, at least once a month. And I have two email addresses, both of which some people consistently get wrong, and then blame me for not receiving their messages. I’d like to be more involved in corresponding
via this time-demanding medium so, for the benefit of those who may wish to criticise me directly rather than indirectly, here are my addresses (and I wasn’t serious about once a month, BUT it could be as much as a fortnight between visits to either of the computers at which I receive email — I don’t carry a portable connection).

doctergo@optusnet.com.au; or doctergo@sci.net.au

Since I have, over the last decade and a half, prepared some 6,000 “expert” reports on occupational or public place injuries, I do have a literal wealth of information and ideas recorded in numerous files and archives. That really does represent an immense resource, which I should be able to share, for intellectual and professional advancement, with ergonomists of like interest (mutual time constraints permitting). I look forward to participating with all of you in the continuing advancement of ergonomics and of our Society, and, hopefully, in your personal development as effective (and eventually wealthy) ergonomists.

Towards an Australian/New Zealand Standard for Functional, Dimensional and Marking Requirements of Educational Furniture

Airdrie Long, Owen Evans, Mike Stevenson and Neil Tuttle

Background

The Standards Australia/Standards New Zealand Committee CS/88 – Commercial Furniture has been responsible for the development of Standards for Office Furniture, including both functional and strength requirements. The functional requirements have included acceptable ranges for basic dimensions, and these have been based on ergonomics. The Ergonomics Society of Australia has a representative on CS/88 (Mike Stevenson at time of writing), and the ergonomics input has been significant although tempered by commercial considerations. The Committee has been considering a standard for educational furniture for some years as outlined below, and it is mainly the dissatisfaction of ergonomists with proposed forms of this standard, which has held up its publication. There is no doubt that this dissatisfaction has been well justified, but on the other hand, local ergonomists have not been forthcoming with positive proposals for the standard. This situation is now changing.

The first proposal for a functional requirements standard was put forward by the Australian Furniture Research and Development Institute (AFRDI), now known as Furntech, in November 1994. Furntech is the main organisation for testing furniture to Australian standards. Standards Australia came to an arrangement with Furntech in which AFDRI Standards would become the basis for Australian Standards to be further developed by CS/88. This proposal by Furntech was essentially the British Standard (BS 5873.1:1980). This standard gave six sets of dimensions for six stature ranges of children, and each of these “sizemarks” was given an identifying colour. The advantages to furniture manufacturers of standardising on such sizemarks across Australia is obvious. However, these sizemarks were based on British data which may even be outdated in Great Britain itself. Also, the standard did not address the typical postures in an educational environment, e.g. the posture in reading and writing is quite different to that required when sitting back and attending to the teacher and blackboard.

The Furntech proposal was put out in 1996 for public comment as a Draft Australian/New Zealand Standard DR 96007. Airdrie Long provided extensive comment on behalf of the Ergonomics Society of Australia. The comments of both Airdrie and the Ergonomics Society of New Zealand were very critical of the draft. These and other adverse comments led to the withdrawal of the draft.

In September 1999, Standards Australia issued another Draft Standard (DR99418) for public comment. This draft was adopted verbatim from the draft European Standard prEN 1729-1:1998, Chairs and tables for educational institutions – Functional dimensions. This draft therefore has the advantage of being more up to date than the British Standard and provides several options. Again, Airdrie Long provided extensive comments on this draft on behalf of the Society. The main problems with it were seen to be the lack of background ergonomic information which would enable users to make logical choices from the range of seat and
table slopes listed, and the suitability for the Australian school population of the seven sizemarks given. Also, the draft standard does not address furniture which would be suitable for use with computers. Unfortunately, Standards Australia received very little other comment, probably because the European draft standard itself was not circulated with the request for comments, but had to be purchased.

In an effort to stimulate further discussion on the draft, Furntech and Standards Australia attempted to organise seminars in Melbourne, Sydney and Brisbane in April this year. Owen Evans, Airdrie Long and Neil Tuttle were recruited to make presentations on the ergonomic issues at the Melbourne, Sydney and Brisbane seminars respectively. The seminars were advertised mainly through the furniture industry. Notice could only be given to a limited number of members of the Ergonomics Society of Australia through the Australian Ergo List (aus_ergo) on the Internet because of the short notice. It turned out that registrations for the seminars in Sydney and Brisbane were so low that they were cancelled. The seminar in Melbourne went ahead, although with a disappointingly low number of participants.

Brief Report on the Melbourne Seminar

About 10 people attended the seminar. There was one school representative, a department of education representative, furniture manufacturers, Owen Evans, the Furntech representative and the Standards Australia project manager.

Owen gave a presentation on the ergonomics perspective that had been prepared by Airdrie, Neil and himself. The manufacturers gave a presentation based on a document prepared by Michael Fewchuk from Sebel. These were followed by discussion.

The discussion resulted in general agreement that the standard needed some guidance information. The draft standard provides several options for chair/table design but no guidance on how to choose the appropriate option or even why there are options. We believe that the Ergonomics Society of Australia will be invited to provide this guidance material.

Appropriate sizing was discussed with no manufacturer wanting to change their sizing. It was felt that choosing one sizing may give one manufacturer a market advantage, although the Sebel sizing was considered to be rationally based. It was felt that the seminar attendance was too small to make a decision about sizing, and it was suggested that all manufacturers be surveyed to determine current sizing systems offered. Participants felt that the sizes proposed in the draft standard were not likely to be appropriate for the Australian context. Size 1 was too small, Size 7 was too big, and the intervals in between were too large. It was reported that there is a purchasing standard in South Australia, presumably with another sizing system.

The inclusion in the draft of a chair having a seat pan with a forward sloping front section and a slightly rear sloping back section—a “hybrid” chair—was received with much enthusiasm. More conventional seat pans which slope entirely forward or entirely to the rear are also catered for in the draft standard.

It was recognised that computer usage needed special consideration and could be foreshadowed as another part in the same standard.

In short, the discussion felt that simply adopting the European draft standard would not be appropriate. It needed some guidance material to be attached and the sizing was not appropriate for the Australian context.

Input of Michael Fewchuk of Sebel Furniture

Michael Fewchuk, Senior Designer at Sebel Furniture, has made a substantial study of the requirements of school furniture, leading to the present range of school chairs and tables manufactured by Sebel. Michael published the results of his study in 1995 (Educational Furniture Research, a 60-page book available from Sebel).

In his report to the seminar on the proposed Standard, Michael lists the ergonomic matters which the Standard should address, in particular the need to cater for both sitting forward and sitting back postures, to encourage maintenance of the natural lumbar curve, to avoid local pressures and to use appropriate size ranges. It is the
last of these which is the most difficult question, and on which Michael spent a lot of his research effort. He concluded that a set of six sizes (not seven as in the European draft) would be sufficient to cover the range of body sizes. He also points out some anomalies in the size ranges of the European draft.

Of Michael’s six size groups, four would cover primary school and the two others would cover secondary school. Two sizes of matched chair/desk combination could be supplied to each classroom. The two sizes for secondary schools are the most that can practically be used in shared classrooms of constantly changing student groups. In secondary schools in Australia children change classrooms every 40 to 60 minutes. Thus, furniture should be available in each classroom to cater for children from 11 years to 18 years of age.

Michael’s experience indicates that the educational furniture market calls for low cost products, and adjustable furniture is not only too costly but also prone to misadjustment. The standard should not end up favouring imports over Australian made furniture. Also, the standard should be a guide on sizes rather than a restrictive formula. This should satisfy any concern that the sizes given could excessively favour any one manufacturer.

Proposal of Airdrie, Owen & Neil

We suggest that some information needs to be provided to assist schools in determining which options are appropriate for their application (we gather this could be placed in an appendix to the standard — for information/guidance). The information should discuss task aspects but also indicate that the structure of the school/institute needs to be considered. Does an individual use the same seat and desk most of the time (they “own” them) or is it a typical high school with students “hot desking”? Also, there should be an explicit discussion about computer use, if only to indicate where the furniture in this standard may not be appropriate. Guidance should be given to teachers to encourage them to consider the individual students in their care particularly where the student “owns” the furniture.

We question the actual dimensions provided in the draft (see Table 1) and suggest that they may not be appropriate in the Australian context. Furntech has suggested surveying manufacturers. We would encourage this and suggest the survey should not only determine the sizes they are currently manufacturing but also determine the relative popularity of the various sizes and what sizes are being purchased for what sized children. Surveying the departments of education may also be helpful.

We see that there may be research possibilities for ergonomists in the sizing of furniture for students in the Australian educational context. As the process of obtaining more up to date anthropometric data may take some time, it may be advisable to adopt a sizing schedule which is consistent with the best currently available data. From our knowledge the sizing suggested by Sebel in their publication “Education Furniture Research” is the best currently available in Australia (we would love to hear from anyone with other data or research in this area). It may therefore be reasonable for the standard to include an appendix including the rationale and formulae for size determination (similar for example to that produced by Michael Fewchuk), and a mechanism for revising the sizing when more up to date anthropometric data is available, without necessarily revising the entire standard. This would mean that the sizing could be kept up to date with changes in the sizes of the school population without revisiting the standard.

The draft standard includes provision for dual slope - “hybrid” - seats, which are much higher than other school seats, to conform with one school of thought which is popular in Europe. A dual slope seat could, according to this draft standard, be of a height greater than 40% of the stature of the average student using the chair, but would be used with footrests. There is a question whether the special conditions for dual slope seats should be modified or deleted altogether.
Conclusions

A draft standard has been proposed for Educational Furniture, which is probably not appropriate for the Australian context. We now have an opportunity to be pro-active by providing ergonomics input to the standard. We need to consider providing guidance material that discusses tasks and sizing issues, allowing teachers and purchasers to make appropriate decisions when buying and choosing furniture. Ergonomists with an interest in the education environment are probably in the best position to determine the appropriate sizes for school chairs and desks.

The review of this standard is an important task for us. For the next issue of EA we would like to produce a further document which makes concrete recommendations, and argues alternatives where this is necessary. **We urgently seek contributions from any member of the Society interested in this area.** Contact Airdrie on a.long@considered.com.au

<table>
<thead>
<tr>
<th>Size</th>
<th>h8 seat height for seat slopes no greater than 30 off horizontal</th>
<th>t4 seat depth</th>
<th>h1 desk height</th>
<th>Suggested Popliteal range (without shoes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>210</td>
<td>Not specified</td>
<td>h8 + 190</td>
<td>190-260</td>
</tr>
<tr>
<td>2</td>
<td>260</td>
<td>240</td>
<td>h8 + 210</td>
<td>225-320</td>
</tr>
<tr>
<td>3</td>
<td>310</td>
<td>280</td>
<td>h8 + 230</td>
<td>260-380</td>
</tr>
<tr>
<td>4</td>
<td>360</td>
<td>330</td>
<td>h8 + 250</td>
<td>300-440</td>
</tr>
<tr>
<td>5</td>
<td>410</td>
<td>380</td>
<td>h8 + 270</td>
<td>340-500</td>
</tr>
<tr>
<td>6</td>
<td>450</td>
<td>420</td>
<td>h8 + 300</td>
<td>390-550</td>
</tr>
<tr>
<td>7</td>
<td>510</td>
<td>450</td>
<td>h8 + 330</td>
<td>450+</td>
</tr>
</tbody>
</table>

Table 1. The sizes given in prEN 1729-1:1998 for single sloping seats and their matching desk.
(All dimensions in mm)

h8 = Seat height is measured on the median plane and is the vertical distance between the front of the seat and the ground.

t4 = Seat depth is measured on the median plane and is the horizontal distance between the front of the seat and the vertical projection of the foremost point of the backrest.

h1 = Desk height is the height of the top of the desk when horizontal.
Finding the Gross Solution

Ken King

Some things about ergonomics are GROSS - but I say this in the nicest possible way. When you think about it, the practising ergonomist - and particularly those working in the overstressed world of musculo-skeletal injuries - is not in the business of delivering solutions couched in concise terms and precise measurements. We do not make reductions of grams to a load to be lifted, of a few Newtons to an applied force, of one or two lux to illumination levels or of a few millimetres to working heights, for that would only be akin to rearranging deck chairs on the Titanic. Our boundaries are not black and white in the sense of those dealt with by physicists or design engineers, but are definitely grey with a blurred transition between the good, the mediocre and the ugly. We cannot look forward to the precise relationships between variables such as those of frequency and tone or the inevitable meeting of expectations (however low) such as the texture and taste of certain fast foods. And all this is due, of course, to our uniqueness as human beings - of our physical variation and our emotional and spiritual makeup. These characteristics vary between and within, as a main effect or a second order interaction. Consequently, our guidelines for any particular human performance capability are W-I-D-E. Take, for example, those criteria available for manual handling tasks, probably the focus of most research effort for at least three decades (and justifiably so when the social cost of the associated permanent injury is considered).

In the early days (for me) I recall referring to the 1962 ILO information sheet No. 3 - Manual Lifting and Carrying - and calculating lower back compressive loadings illustrated with stick figures. Crude, but I wonder if my assessments were any the poorer for the lack of better analysis tools. Sure, there were instances where a lumbar motion monitor would have been useful or some EMG data would have been nice, and a couple of job assessments would have been suitable for the University of Michigan 3D static strength prediction software. But overall... I also remember the excitement of seeing the first draft of the 1981 NIOSH guide, being somewhat interested in the Davis and Stubbs abdominal pressure criteria and the adaptation of psychophysical measures by Stover Snook, but also being nonplussed by the 1991 NIOSH effort. For, by then, I was increasingly of the view that this ever growing mound of information was often more useful to illustrate a point or to add weight to and opinion, rather than being necessary to form the opinion in the first instance.

Hey, don’t get me wrong! I am not questioning the benefits of research or the desire to know answers to those myriad of questions which confront you at every consulting step, nor of the value of specific data in many ergonomic pursuits, but when all is said and done the watershed for MMH was probably the 1981 NIOSH document. For ergonomists do not (or should not) hold to a limit design approach. While we can give the appearance of putting hard numbers on our recommendations, the preferred solution will usually be one of gross change; reducing the standard 40kg bag of cement to 20kg, not 27.65kg as might be calculated.
for a particular situation; or to use a hose rather than refine the bucket transfer task; to haul scaffold components by rope and pulley rather than to plan postures, specify load orientation and train for manual transfer.

The ergonomist’s design task is often qualitative and not so much quantitative in MMH. Just look at the advisory standards (nee codes of practice) and their successors; many words but not many numbers. Deciding between yes and no cannot be considered a fine judgement, and yet this is the limit of choice for many of the task characteristics assessed - is this present or that absent; furthermore, there is no valid reason for increasing the choices.

There may come a day when fuzzy logic combines with chaos theory to allow time dependant valid and reliable predictions to be made of an individual’s injury index when lifting a load. While we are waiting, however, much can be done by simply using observation directed with an understanding of the factors influencing musculoskeletal stress - something that appears to remain the province of the ergonomist. For although there is a plethora of information directed at the lay public - and the advisory standards and other guidelines must be seen as such for they are certainly not ergonomics text books - this information is not used or is not used very well. Industry remains riddled with high-risk MMH jobs, which the trained observer will readily identify as such (while at the same time wondering why others haven’t). The violation of marginal, let alone desirable, task limits can often be detected by telephone interview; at a worksite, the most comprehensive of assessments can usually be done using no more than a tape measure and spring balance. And once the first impressions are confirmed by these simplest of measurements, the changes necessary to cater for the 85%ile or the 90%ile or any other ile will be GROSS – and probably little different to those required if the task was being tailored to a particular individual. Even then, the proposed solution may not be without risk for all people, and that is where early reporting of symptoms comes in - but that discussion is for another day.

Overall, we do have the understanding and ability to design a better MMH world. Our observations and recommendations should reflect a knowledge of reasonable limits, the influence of posture and of the social environment; at the end of the day a physical facility which improves the workers, the employers and consequently society’s lot can be built .. and my argument is that the majority of change can take place without the need for man-on-the-moon technology, but with uncomplicated alterations driven by some crucial chunks of knowledge long held.

What do you think? Oh, and where does the ergonomist fit in all this? I am reminded of the parable of the consultant who was called in to repair a malfunctioning machine which had been causing untold interruption to production. The consultant walked around the machine before picking up a hammer and striking the machine frame. The machine started and continued running without further downtime. In due course, the machine owners were invoiced and were somewhat taken aback at the $10,000.00 fee; they requested a detailed statement from the consultant who, after all, was at the factory for no more than 10 minutes. The consultant’s response read:

For time attending $ 50.00
For knowing where to strike $ 9950.00

The ergonomist must only know where to strike, and not make an assessment any more complex than is necessary to find the target.
2001 Breakfast Activities

Here is the program of breakfast seminars in 2001. Be sure to note the dates in your diary so that you don’t miss out!

APRIL - Thursday 19th: The Decade of Bones & Joints presented by Vaughan Kippers

JUNE - Thursday 14th: Manual Handling Solutions, presenter TBA

AUGUST - Thursday 16th: Australian Standards for Work Stations presenter TBA

OCTOBER - Thursday 18th: Risk Assessment Tool, presented by Robin Burgess-Limerick

All breakfasts will be: 7am for a 7.30 start and finishing at 8.30am
At: The Stones Corner Hotel, 346 Logan Road, Stones Corner.
Cost: $12 per person
RSVP: for catering purposes to Belinda Cox at towardshealth@bigpond.com.au on the Monday before the seminar.

VICTORIA

If you’re on email but have changed your email or post address, please let us* know promptly.
* psclark@rie.net.au and ESA Secretariat esa@interact.net.au

Vic Branch Program Coordinators:
Steve Isam   stephen@pipeline.com.au
Tel: 0418 599 046
Stephen Hehir   stephen.hehir@auspost.com.au
Tel: 9204 5456
Vivien Karabinas   vivien_karabinas@amp.com.au
Carol Lapeyre   carollapeyre@bluep.com
Christine Waring
christine_waring@workcover.vic.gov.au

Thursday 19th July Geelong Regional meeting
The sequel to our successful 1997 Geelong seminar!

Watch this space for developments - there is a possible change with the visit of an overseas ergonomicist during that period.
September (date not yet fixed)
Measurement techniques currently being used by ergonomists; round-robin style

November (date not yet fixed)
Joint meeting with CHISIG (computer-human interaction special interest group) on computer/technology/usability.

New South Wales

Program for 2001 — Technical Meetings are held at The Red Centre, UNSW
Social networking with refreshments 6pm. Presentations start 6.30pm.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>March, 7th</td>
<td>6pm for 6.30 pm</td>
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<tr>
<td>Roger Hall</td>
<td>Prototyping for useability of New Technology</td>
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<tr>
<td>April, 4th</td>
<td>Cathy Paver</td>
</tr>
<tr>
<td></td>
<td>Development of a baggage handler’s manual handling program for Qantas</td>
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<tr>
<td>May, 2nd</td>
<td>Catherine Cook</td>
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<td></td>
<td>Shift work: a newspaper call centre + doctoral research into computer related musculoskeletal disorders</td>
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<tr>
<td>June, 6th</td>
<td>Steve King</td>
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<td>A walk through the Red Centre — a user’s view of the building and discussion some of the issues relating to thermal comfort of the inhabitants.</td>
</tr>
<tr>
<td>July, 4th</td>
<td>Neil Adams</td>
</tr>
<tr>
<td></td>
<td>Some of my most horrendous injury cases: where ergonomics failed.</td>
</tr>
<tr>
<td>August, 1st</td>
<td>Jack Allagan</td>
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<td></td>
<td>In a macho fire fighting culture there are many manual handling problems that need to be addressed by an OHS&amp;E manager — come and hear about the approach currently being adopted by NSW Fire Brigades.</td>
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<tr>
<td>September, 5th</td>
<td>AGM</td>
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<tr>
<td>October, 3rd</td>
<td>Pre conference preparation — no meeting</td>
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<tr>
<td>November, 28-30th</td>
<td>Better Integration: Bringing Research &amp; Practice Together</td>
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<td></td>
<td>37th ESA Conference Millennium Hotel, Sydney</td>
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<tr>
<td>December, 5th</td>
<td>Student presentations etc as posters at the conference</td>
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</table>
Tasmania

Members of the Society, based in Tasmania, have set up the Tasmanian Ergonomics Special Interest Group to provide a forum for professional networking and development and to promote ergonomics activities in Tasmania. If you are visiting Tasmania for work or leisure perhaps you would like to do a small presentation to the Group on an ergonomics topic of your choice over a glass of Tasmanian Chardonnay. Call Noel O’Mara on 03 6231 6616 and we can arrange something.

Regards
Tasmanian Ergonomics Special Interest Group

Western Australia

Technical Meetings

All members and anyone with an interest in ergonomics are invited to attend our monthly Technical Meetings. They provide a great opportunity to learn about new developments in our field, network with old friends and colleagues (or meet new ones) and enjoy some relaxing drinks and nibbles after work. The meetings are held on a rotating basis in the first week of each month at 5.45 pm (drinks) for a 6 pm start and usually run for up to an hour. The venue is Shenton Park Curtin University Therapy Campus in the room opposite the lift on the ground floor. The dates of the next 5 meetings:

Thurs 5 July
Tues 7 August
Wed 5 Sept
Thurs 4 Oct
Tues 6 November

Put the dates in your diary now!! Our topics over the next few months are currently being finalized and look like including “Laptops and Schoolchildren”, Mail Exchange visit, Manual handling latest research, and other interesting topics — send us your ideas if you’d like us to arrange a particular topic or guest speaker (email ideas or requests to: Carol Cain ccain@iinet.net.au or Heidi Brandis heidi.brandis@crsrehab.gov.au

Look forward to seeing familiar and new faces at the Technical Meetings this year! Bring a friend.
New Members

NSW
Mr Patrick Donohue
Unit 13/88 Shirley Road
WOLLSTONECRAFT NSW 2065
Upgrade to Certified Professional Member

VIC
Anne Baldwin
Coles Myer Ltd
OH&S Dept – L4M5
800 Toorak Road
TOORONGA VIC 3146
Corporate Affiliate

QLD
Mr Gareth Shepherd
PO Box 7338
EAST BRISBANE QLD 4169
Upgrade to Certified Professional Member

ACT
Ian Riach
GPO Box 1113
CANBERRA ACT 2601
Member

TAS
Mark Cook
Dept of Premier & Cabinet
GPO Box 123B
HOBART TAS 7001
Affiliate

WA
Ms Stroma Lawson
17 Leymar Way
WILLETTON WA 6115
Upgrade to Certified Professional Member

Noticeboard

New Postgraduate Programs in Ergonomics at The University of Queensland
Subject to final approval by the Academic Program Review Committee (June, 2001), the following new programs will be available in Semester 1, 2002.

- Graduate Certificate in Ergonomics - GCErg
- Graduate Diploma in Ergonomics - GDipErg
- Masters of Ergonomics - MErg

The programs will be offered by the Faculty of Health Sciences, with contributions from staff from four other faculties. The programs are designed around a small number of core courses, with the balance of each program selected from a list of electives. All core courses will be taught in a mixture of remote delivery and 2 day block attendance. Many electives will also be available in block or remote mode.

More more information, see http://ergonomics.uq.edu.au/pgrad/info.pdf

Robin Burgess-Limerick

Ergonomics at La Trobe
Information about ergonomics at La Trobe University is now available from our new website:
When keying in this address, be sure to use upper case where shown.

There is information on this site about ergonomics itself, currently available ergonomics subjects and courses (both undergraduate and postgraduate), recent and current research projects and forthcoming seminars.

For people interested in more information on the topic (WORKLOAD AND WORK RATES), four .pdf documents are downloadable from the home page.

For people wanting written information from our most recent seminar on Manual Handling and Nursing, by Gillian Elix and Paul Rothmore, see the document available from the Home Page under WORK ANALYSIS AND MEASUREMENT METHODS.
Information on this site will be regularly updating about our courses, research projects and seminars, so check it out from time to time. Notification of seminars will be posted to this list also.

Wendy Macdonald

UK Annual Ergonomics Conference 2002

The Ergonomics Society Annual Conference 2002
Homerton College, Cambridge, UK

Call For Papers

This conference covers all areas of ergonomics research and application. We welcome papers from all ergonomists and human factors professionals and all those with related interests. Closing date for receipt of submissions is Friday 24th August 2001; Closing date for camera-ready copy of papers is Friday 21st December 2001. For further information please contact c.greenwood@ergonomics.org.uk or http://www.ergonomics.org.uk

Please note that all presenters at the Conference are liable to pay registration fees. Funding Available from the European Union

The European Agency for Safety and Health

The European Agency for Safety and Health at Work has launched a call for “project proposals for the provision and dissemination of effective good practice examples that reduce accident risks in SMEs [small and medium sized enterprises]. “The 5 million euro funding scheme will provide grants of between 25,000 euros and 200,000 euros for national and transnational / European projects.” For more information, visit: http://agency.osha.eu.int/news/press_releases/010427/

It doesn’t specifically mention ergonomics, but I assume that it’s a topic of interest for them. Good luck to all who submit proposals.

Accident prevention is a key theme of the Agency’s work program for 2001. In addition to the SME funding scheme, it is also the focus of this year’s European Week for Safety and Health at Work. The Agency- coordinated Week, which will take place during October 2001, is an information campaign designed to raise awareness and promote activities to make Europe a safe and healthy place to work.

From: “Peter M. Budnick” <budnick@ergoweb.com>
and forwarded by David McFarlane

Ease of Use Conference

Thought the conference outlined at the following URL would be of interest to all involved with HCI, and only involves virtual attendance, making it inexpensive and accessible. I’m sure Leon S. will be encouraged by their approach....http://www-3.ibm.com/ibm/easy/eou_ext.nsf/Publish/743

Brian Hill
SMS Consulting Group

[Ed comment: checked this out and the papers and details for both 2000 and 2001 are available on the site and readily searched in a user-friendly format.]

Preview of International Conference on Affective Human Factors Design

Singapore, June 27-29, 2001

Topics for paper sessions include:

- User Experience and Future Design
- Theories in Emotion and Fun
- Aesthetics Design of Chairs and Office Environment
- Design of Games and Touchable Products
- Useability, Aesthetics and Fun
- Pleasure and User Satisfaction
- Affective Design of Speech Interfaces
- Design Methods
- Methodologies in Affective Design and Evaluation
- Kansei Engineering for Affective Design
- Culture and Sensory Adaptation
- Customer Needs and Product Design
- Information Design and Special needs group
- New Paradigms in Affective Design
News about members

Jenny Long (NSW) was awarded The Safety Institute of Australia (NSW Division) Bill Lessels’ Memorial Prize for the best overall performance in the course Master of Safety Science at UNSW at the special prize giving held by the School of Safety Science on 10 April this year.

Nic Doncaster (VIC) has won the Victorian Branch annual prize for the best student in the La Trobe University postgraduate Ergonomics course, presented at the University Prize Ceremony on 31st May.

Kerry Jones (WA) has been appointed Rehabilitation Manager for Woolworths, Western Australia.

Belinda Cox (QLD) commenced her occupational therapy life in rehabilitation, which extended to workplace based work. This was undertaken in Tasmania initially and she then moved to the South Brisbane Centre, Woolloongabba in its early days. From here Belinda ventured overseas, and worked for several years before returning to Oz to complete a Graduate Diploma in Ergonomics. Whilst travelling to Victoria for lectures, she completed various projects and then moved into a manufacturing environment to set up and manage rehabilitation systems and ergonomics. She returned to Gregory Terrace Rehabilitation, whilst setting up in private practice and now operates Towards Health in the areas of rehabilitation and ergonomics.

On a personal note, Belinda still enjoys travelling and has an interest in other cultures (nations and organizations). The drive for adventure has not waned and many a holiday has been a combination of both. Workplace based work certainly appeals to her sense of adventure, along with her interest in other cultures and continuing interest in making workplaces healthier place to be. Her areas of passion are certainly in the areas of prevention … and ergonomics provides the bigger picture focus in addressing this.
Carol Lapeyre (VIC)

Carol joined the Victorian Committee late last year. One of her responsibilities is to assist in arranging the professional development seminars for ESA members. Her original qualification is in Occupational Therapy and she has a Post Graduate Diploma in Occupational Health and Safety. She has worked in Occupational Rehabilitation and Occupational Health and Safety for in excess of 10 years — originally employed with the Commonwealth Rehabilitation Services (now known as CRS Australia). Following this she joined Westpac Banking Corporation as the OHS manager for Victoria and Tasmania, at the time it was about to merge with Bank of Melbourne. This was an exciting time in her career because she was given the project task of managing the transition to Bank of Melbourne. She established new OHS and Prevention strategies for this new organisation in Victoria —seeing the merger through to its completion and really enjoying this role.

In the meantime she gave birth to her daughter Cassandra, now a wonderful 3-year-old —who is her pride and joy. Deciding that she wanted to spend more time with Cassi, she accepted a part time job with Coles Myer Ltd, initially as Injury Management Co-ordinator, then as Occupational Health and Safety Co-ordinator (Prevention Team).

Carol recently established “Lapeyre Consulting Service” delivering Prevention, Health and Safety and Injury Management services to a variety of businesses. She works primarily from home and has a passion for her chosen profession while getting a kick out of doing the various tasks.

Christine Waring (VIC)

Once again Christine has taken on the role of Branch Committee member. Some may remember her as assistant Treasurer and Treasurer previously in a past life on the Committee. This year she is diversifying and assisting Phil with the Newsletter, and am also involved in the Professional Development and Publicity and Promotions sub committees. She says that she really enjoyed her previous involvement with the committee and would encourage other members to become involved in the future — it is a fantastic way to meet others in ergonomics and to become aware of issues facing ergonomists.

After completing nursing training Christine did a graduate diploma in community health nursing where she found she had a bent for psychology and went on to complete a Bachelor of Behavioural Sciences at La Trobe University. The industrial psychology component interested her; especially fascinating, was the way design seemed to ignore the human being — so she moved into the Grad Diploma in Ergonomics at Lincoln. This also coincided with a transition from nursing to rehabilitation and occupational health and safety. She worked at Australia Post for a number of years, initially, as a Rehabilitation Counsellor and then in the occupational health and safety department for the mail centres. During this time, she was able to carry out ergonomic assessments and put her ergonomics training to good use under the mentorship of David Nelson, Corporate Ergonomist.

Since then, Christine has worked at the TAC as a Rehabilitation Co-ordinator and later as Provider Manager where she gained many skills, including contract and relationship management. More recently, she completed a Graduate Diploma in Business in Organisation Change and Development and is currently on secondment to the Victorian WorkCover Authority (VWA) to manage the development and implementation of an agreement between occupational rehabilitation providers and the VWA. She says that she finds herself putting ergonomics knowledge and training to good use in a totally different way!

As I like to take on challenges, I recently decided to learn to fly an aeroplane and it certainly is challenging with lots and lots of technical information to learn and remember. However, flying is wonderful and exciting and very surreal in that little Cessna 152!! I don’t have as much money, time and energy to devote to flying as I would like, but you never know, one day …..
**Conference Calendar**

**2001**

E-mail: MingPo.Tham@motorola.com

8 - 13 July, 2001, XVIIIth Congress of the International Society of Biomechanics Zurich, Switzerland
E-mail: isb2001@biomech.mat.ethz.ch
Web: www.isb2001.ethz.ch

11 – 12 July 2001, National Seminar on Ergonomics & Sport Exercise Physiology Denpasar, Indonesia
Contact: Professor Adnyana Manuaba
adman@denpasar.wasantara.net.id

18 – 21 July 2001, Second National Conference of Vocational Rehabilitation Providers West Point Convention Centre, Hobart Tasmania
Contact: Mures Convention Management, Victoria Dock, Hobart 7000
Tel: (03) 6234 1424
Fax: (03) 6234 4464
E-mail: cinventions@mures.com.au


29 July – 1 August 2001, International Conference on Computer-Aided Design Outrigger Wailea Resort, Maui Hawaii USA
Offers of technical presentations and/or full technical sessions are welcome.
Full details can be found on the web site under: http://www.ergonet.net/caes2001.html
Prof. Biman Das, CAES 2001 Conference Chair
Department of Industrial Engineering
Dalhousie University
Halifax, Nova Scotia Canada B3J 1B6

Registration USD 320 covers banquet and food during Conference Contact: Wang Sheng, MD/Professor Secretary General, 6th PPCOE
Department of occupational Health
Beijing Medical University, Beijing, 100083, P R China
Tel: 86-10-6209-1533
Fax: 86-10-6201-5585
E-mail: wsheng@public.bta.net.cn

2 – 5 September 2001, 33rd Annual Congress “Promotion of Health through Ergonomic Working and Living Conditions” at the University of Tampere. Starting on Wednesday 5 September, a related symposium “The 1st International Symposium on Work Ability”.
Further information from: Professor Clas-Håkan Nygård, tel. +358 3 2157803
E-mail: clas-hakan.nygard@uta.fi. or Congress’ web-site, address: http://www.uta.fi/laitokset/tsph/nes2001.

Convenor: Masaharu Kumashiro

Contact: Nicolaes Tulp Institute, Mariska Beunk-Timmers PO Box 23213, 1100 DS Amsterdam, The Netherlands
Theme: “Musculoskeletal research at work: From problem analysis to effective interventions.”
Intending presenters should submit abstracts before 1 February 2001.
Further details available on website:
http://www.eur.nl/figg/mgz/premus/frmain.html

9th Annual Safety Institute of Australia (Qld Division)
Conference in partnership with the Division of Workplace Health and Safety; Cairns International Hotel, Cairns
Abstracts due by 20 April 2001 and should be restricted to 200 – 400 words in length and should clearly outline the focus and content of the paper and be forwarded to:
Robyn Blumsom
Conference Secretariat
PO Box 12565
Brisbane Elizabeth Street BC
Brisbane Q 4002
Tel: (07) 3247 4811 Fax: (07) 3247 4043
E: robyn.blumsom@detir.qld.gov.au

28 – 30 November 2001, 37th ESA Conference,
Sydney New South Wales “Better Integration:
Bringing Research & Practice Together”

Contact: Conference Organiser
International Conferences and Events (ICE) Aust P/L
Tel: +61 2 9544 9134
Fax: +61 2 9522 4447
E-mail: natalie@iceaustralia.com

6 – December 2001, 6th Biennial Motor Control
& Human Skill Research Workshop
Esplanade Hotel, Fremantle, WA
http://psych.curtin.edu.au/conference/motorcontrol

2002
20 – 22 February Conference on Occupational Risk Prevention (ORP’2002) Gran Canaria (Canary Islands)
For your information, the working areas of ORP’2002 will be ergonomics, prevention and safety management, legal issues in prevention, psychosociology.
The Conference will be co-chaired by Prof. Markku Mattila, and Prof. Waldemar Karwowski.
You will be able to find more information — although for the moment in Spanish — at
http://www.prevencionintegral.com/ORP2002

18 – 21 March 2002, WorkCongress 5, Adelaide Convention Centre, South Australia.
The congress will include international experts in public policy, workplace legislation, management practices, health and safety protection, rehabilitation and compensation. 600 participants are expected from Africa, America, Europe, Asia, Australia and New Zealand. Key participants will include:
• Stephen Adler, President, Israel Labour Court and Israeli Association for Labour Law and Social Security (Israel)
• Peter S Barth, Professor of the Department of Economics at the University of Connecticut (USA)
• Keith Brown, CEO, WorkCover Corporation SA (Australia)
• John F Burton, Dean of the School of Management and Labour Relations at Rutgers University (USA)
• Dennis Else, Chairman, National Occupational Health and Safety Commission (Australia)
• Hans-Horst Konkolewsky, Director, European Agency for Safety and Health at Work (Bilbao, Spain)
• Willi Morger, Member of the Management Committee of SUVA, European Forum
• Günther Sokoll, Director General, Hauptverband der gewerblichen Berufsgenossenschaften (Germany)
• Terrence Sullivan, President, Institute for Work & Health (Ontario, Canada)
• **Jef Van Langendonck**, Honorary Secretary General, European Institute of Social Security

The overall theme of the congress is “working safely in a changing world”. The three-day congress will include a major focus on “re-assessing structures”, that is comparing the range of approaches around the world in work injuries prevention, rehabilitation and compensation. Other themes for the congress include health issues, changing employment relations and vision for the future. The congress will have an international perspective with multidisciplinary and interactive sessions. This congress will be held concurrently with the Second Australian Workers’ Compensation Symposium. Workshops will be designed to accommodate the symposium.

**KEY DATES**

30 November 2000 – Deadline for early bird individual registration (AUD$715)
21 December 2000 – Deadline for submission of keynote and plenary papers
22 February 2001 – Deadline for standard individual registration (AUD$825)

**Contact**

Kim Tolotta, Project Manager, WorkCongress5 Secretariat, South Australia

3 - 8 August 4th World Congress on Biomechanics, University of Calgary, Canada.
Editor:  
Dr Shirleyann M Gibbs  
Gibbs + Associates Pty Ltd  
25 Melaleuca Drive St Ives NSW 2075 Australia  
Tel: +612 9983 9855  Fax: +612 9402 5295  
E-mail: shanng@optushome.com.au  

**The deadline for the September issue is 1st August and for the December issue 1st November 2001.**

**Contributions**

Contributions to Ergonomics Australia are always welcomed and encouraged.

The activities, achievements, experiences, views and opinions of Members are always of interest. These can be in the form of letters, notices, notes, commentaries and articles.

Graphics (photos, illustrations, drawings, computer graphics etc) are particularly welcome and should be camera ready. Photos need not be black and white and negatives are not required.

The preferred form of submissions is via e-mail, either in the body of a message (short notices), or as an attachment (articles / letters). Files may also be mailed on floppy disc (or Zip disc if very large). Microsoft Word or Corel WordPerfect are the preferred formats (the new editor cannot transcribe MacIntosh files that are not in IBM type format.) Handwritten or hard copy submissions will only be accepted in exceptional circumstances as the Editor is not a trained typist, does not employ a secretary and her time is valuable!

Any inquiries about contributions should be directed in the first instance to the Editor.

**Inquiries**

All advertising inquiries should be directed to the Federal Office of the Society.  
Contact:  
Ms Christine Stone  
T: 02 6242 1951  Fax: 02 6241 2554  
E-mail: esa@interact.net.au  
9 am – 1 pm Monday to Thursday and 9am – 12 noon on Friday

**Size**

The finished page size of the Newsletter is B5 (270mm x 176mm)  
Printed column sizes are 210mm x 152mm (double) or 21mm x 72mm (single)

**Advertising Copy**

Must be camera ready and must arrive at the ESA Federal Office by the Copy Deadline Submission Date for the Edition in question.

A professional advertising service is available for producing camera ready copy if required. For further inquiries regarding this service contact:  
Mr Goro Jankulovski, Acute Image  
Tel: 03 9381 9696  Mobile: 0414 605 414  
E-mail: goro@acuteimage.com.au

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**Enclosures**

Pre-printed enclosures (leaflets, brochures) etc are welcome for inclusion with the Journal.

Enclosures should be pre-folded to fit inside the finished Journal.

Rates for enclosures:
- Enclosure not requiring folding $412.50
- Enclosure requiring folding $462

These rates may increase if the enclosure weighs more than the equivalent of 2 standard weight A4 pages. These rates are inclusive of GST.

640 copies should be sent to arrive at the ESA Federal Office by the Copy Deadline Submission Date for the Edition in question.

**Address for mailing copy and/or enclosures**

ESA Federal Office  
Canberra Business Centre  
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**Ergonomics Australia On-Line (EAOL)**

Advertising and sponsorship opportunities also exist in the electronic version of this journal (EAOL) which is managed by Dr Robin Burgess-Limerick at Department of Human Movement at Queensland University. It is downloaded by more than 100 Australian and International readers each week. To view EAOL:  
http://www.uq.edu.au

**Caveats**

The views expressed in the Journal are those of the individual authors and contributors and are not necessarily those of the Society.

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**Editor**

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**Circulation**

The Journal is published six times a year and is received by approximately 620 professionals Australia wide working in the areas of ergonomics, occupational health and safety, and design.