INTRODUCTION: CULTURAL HERITAGE — PUBLIC GOOD AND ECONOMIC AGENT

There is no disputing that museums, art museums, heritage organisations, and archives are valued highly in Australia. However, much lobby groups or governments might disagree about what constitutes worthwhile cultural heritage and about how that heritage should be presented, there is broad consensus about its importance to national psychic health. In a climate of diminishing state provision for public culture, we have just witnessed a major investment by the Commonwealth Government in a new National Museum of Australia.

This kind of investment derives from a bipartisan appreciation of the value of cultural heritage organisations as agents of public good. Major cultural heritage organisations (CHOs) are seen by most governments as necessary to modern democracy. They enable a multi-ethnic population of citizens to participate in evolving new senses of national identity out of a diversity of experiences, values and traditions. There is a realisation across the spectrum of Australian politics — witnessed in the Centenary of Federation celebrations around the country — that our population has differing historical heritages, and that these heritages must be retrieved, cherished, and renegotiated if we are to maintain Australia as a cohesive democracy with an appropriately healthy sense of civility and social responsibility.

Yet the very governments that fund these institutions as agents of public good undervalue them as agents of economic growth. Like cultural institutions more broadly, CHOs are still seen predominantly as part of a worthy but essentially hobbyist and elitist publicly-funded 'welfare' sector, or as a 'natural' by-product of human society that requires no conscious planning or stimulation. Above all, governments and economic planners have failed to appreciate CHOs as dynamic contributors to the new information-based, globally-influenced, knowledge economies of the twenty-first century.

Global knowledge economies are generally defined by their focus on performance in three seminal areas: education, research and development, and information and communications technologies. Collectively, these areas comprise the OECD-defined index for investment in knowledge.

The Humanities and Social Sciences Summit was held at the National Museum of Australia, 26-27 July 2001. It was convened to provide a platform for public discussion on the role of the humanities and social sciences in today’s economy. The Summit was sponsored by the Higher Education Division of the Department of Education, Training and Youth Affairs, and was convened by the Academy of the Humanities, Academy of Social Sciences, Dean of Arts, Sciences and Humanities and the Business Higher Education Round Table. Further info at http://www.anu.edu.au/cce/humanities
The Commonwealth Government’s recent innovation plan, ‘Backing Australia’s Ability’, seeks to institute comprehensive and long-term policies to stimulate our development as a global knowledge economy capable of competing in the markets of the future. Many of the proposals in the innovation action plan are excellent. It is impossible to underestimate the importance of stimulating new skills, ideas and commercial initiatives through research and development alliances between university, government and private industry. But why has this process been confined to science and technology? By implication CHOs are viewed neither as productive industries in need of research and development nor as sources of intellectual innovation and experiment on which our future competitive knowledge economy will depend.

‘Backing Australia’s Ability’ singles out biotechnology and agribusiness as crucial nodes for research and development investment, but says nothing, for example, about encouraging the growth of cultural and social informatics in the knowledge society of the future. Cultural informatics encompasses the human application of the information revolution. It is defined as the interdisciplinary study of information content, representation, technology and applications, and the methods and strategies by which information is used in organisations, cultures and societies. In the United States, Canada and Europe, cultural informatics is a burgeoning field for government, university and private industry investment.

Museum and heritage management has been in the vanguard of developing this new knowledge form. In the United States, Europe and parts of Asia, CHOs are fast integrating with information management systems to generate both theoretical and applied innovations in cultural informatics. This is manifested in new degree programs, expert conferences, and research collaborations with heritage institutions, technology industries and universities. Australia has also achieved a great deal, but without conscious investment we will soon no longer be in a position to participate in building this new knowledge matrix of the future. Our economic competitors are not making the same mistake.

Take the relevant examples of Britain, Singapore and New Zealand, where similar processes of policy-making for innovation are under way. In the British Government’s Green Paper, ‘Culture and Creativity’, stress is laid on ‘the key role that culture and creativity play in the government’s educational and industrial policies’. ‘Culture and Creativity’ acknowledges the importance of the cultural sphere as a sector of the economy that continues to experience vigorous growth in Britain and throughout the globe. But it also recognises that cultural research and development constitutes an essential catalyst of future innovation: ‘creative talent will be crucial to our individual and national economic success in the economy of the future’.

It is a truism that a spirit of innovation and experiment is difficult to inculcate. Otherwise everyone would do it. Recent research in Singapore identifies the neglect of the humanities as the ingredient hampering an otherwise highly sophisticated knowledge society from taking a lead in innovation. Investment in science and technology alone has failed to generate the intuitive, pluralistic and multi-dimensional modes of thinking necessary to twenty-first-century innovation.

Historians and economists have long debated what it was that gave British society the innovatory psychology to trigger the first industrial revolution in the mid-eighteenth century. Most scholars now agree that, whatever else was involved, the open, critical spirit that sprang out of Nonconformist religious and educational culture played a crucial role in shaping the first industrial generation of entrepreneurs and inventors. In short, culture, science and technology were part of a holistic mix, without which intellectual combustion would not have occurred.

No wonder, then, that Tony Blair asserted in his stunningly successful recent election campaign: “For too long arts and culture have
stood outside the mainstream, their potential unrecognised by government. That has to change, and ... it will ... In the twenty-first century, we are going to see the world increasingly influenced by innovation and creative minds. Our future depends on creativity.”

1. MUSEUMS AND HERITAGE ORGANISATIONS AS CULTURE INDUSTRIES

Recognition that culture is big business, is not new; neither is it new to point out that changing patterns of consumption and rising real incomes are fostering a growth in demand for cultural goods and services through the industrialised world. But it is worth reaffirming this basic economic case in the more specific context of museum, art museums, and heritage organisations.

ATTENDANCES

First we need to note that there are a lot of these cultural heritage institutions: research of three years ago shows that there were then more than 1700 such public institutions across Australia. Moreover, these institutions took an enormous diversity of forms outside the more familiar ones of museums, art museums, and archives, including historical theme parks, science and technology centres, house museums, memorial and commemorative institutions and interpretation centres.

Plenty of people visit them. The Australian Bureau of Statistics survey of attendance at Selected Culture/Leisure Venues in April 1999, indicated that total attendance at museums is in excess of sixteen million people per year and the figure is slightly higher for art museums. Around 20 per cent of the Australian population aged fifteen and over had visited a museum at least once in the previous year, and among these is a very high percentage of school age children — the consumers and innovators of the future.

TOURISM

The figures of Australian museum attendance climb to between 60 and 70 per cent when international tourists are polled, a vitally important economic indicator given that tourism is now the world’s largest industry. Around 700 million people travel the world
every year and economists predict that at the present rate of growth this figure will reach a staggering 1.6 billion people by 2020. Moreover, it is relevant to note that cities and regions containing world heritage listings are the most popular tourist destinations.

Last year more than 600,000 people visited the Australian War Memorial in Canberra, and the figures are on target to exceed that considerably this year. Similarly, official estimates of likely attendance at the new National Museum of Australia fell far short of actual attendance figures which are over 450,000 already (figures as at 26 July 2001).

Even considered on a more modest local and regional scale, museum and heritage institutions constitute an astonishing source of actual and potential economic vitality for communities, councils, businesses and tourist bodies. Arresting the decline of the bush has to be among our most serious national concerns. Local museum and heritage activity can provide additional sources of community income and employment, diversify vulnerable economies, and strengthen local identity and morale.

Research undertaken in 2000 on three historical mining towns, Maldon in Victoria, Burra in South Australia, and Charters Towers in Queensland, showed that visitors spent $102-164 each day in the towns and surrounding regions, adding $2-4.5 million to the annual gross regional product. Or, to take another relevant example, income generated in Australia last year from the sale of Aboriginal crafts, many of which were channeled through museum and heritage outlets, was in excess of $200 million.

EDUCATION INDUSTRIES

Culture industries, particularly the museum and gallery sector, play a vital educative role in establishing the mutual cultural understandings and connective tissues for developing international trade and business markets. Schools in Queensland have for some time fostered the teaching of Asian languages as a core part of the curriculum in order to underpin consumer and business relations of the future. Likewise, the Asia-Pacific Art Triennial at the Queensland Art Gallery has drawn many thousands of Queenslanders into new understandings and connections with modern Asian societies and cultures. Conversely, the international reputation of this Triennial exhibition and festival as the premier global forum of modern Asian art has brought a new respect for and understanding of Australia throughout the Asia-Pacific region.

GLOBAL AND REGIONAL MARKETS

Our economic competitors have shown themselves well aware of cultural heritage activities as agencies of long-term social diplomacy and trade development, which is why countries such as Sweden, France, Holland, Portugal and Belgium are investing heavily in rebuilding heritage in Asia, especially South East Asia, Vietnam and East Timor. Disturbingly, Australia's relative disregard of the importance of cultural heritage diplomacy in favour of engagements motivated by short-term or instant trade benefits, has produced a situation where we are being sidelined from such heritage initiatives. A new Europe-Asia League for cultural heritage has recently been founded that explicitly excludes Australia. It also seems likely that the UNESCO proposal to
build a new national museum of East Timor will be undertaken in cooperation with Portugal rather than Australia. An undervaluing of the role of heritage in rebuilding communities and nations could lead us to squander the good will that has been built up through other forms of aid and diplomacy.

2. CULTURAL HERITAGE ORGANISATIONS: INNOVATION AND THE NEW ECONOMY

The fact that a number of CHOs in Australia have managed to become key sites of innovative research and development in spite of a disadvantaged funding climate highlights the folly of excluding them from the enhanced benefits of government research and development programs such as 'Backing Australia's Ability'. Of course, museums and heritage organisations have long possessed some specialised research dimensions, but these have grown and diversified as CHOs have moved beyond their traditional roles as collectors, preservers, and custodians of material culture into interpreters, teachers, and popular disseminators of diverse cultural products.

MAPPING THE CHARACTER AND NEEDS OF HERITAGE CONSUMERS

For a start, CHOs have had to pioneer research into the nature of museum publics. Proposed museum exhibitions are now subjected to intensive preliminary consultation and trial among cross-sections of the public, using a variety of polling techniques and comparative international research data. Publicly-funded heritage organisations have to justify their existence and measure their success through their ability to attract mass audiences within a highly competitive leisure economy. This has forced them to develop sophisticated calibrations of the ethnic, age, class, gender, and religious characteristics of their potential audiences, as well as understandings of the communicative processes needed to reach and retain them. This type of research has become part of the body of disciplinary theory and practice that must be absorbed by modern museum and heritage professionals. It is customarily published by heritage organisations, in collaboration with university researchers, through the medium of scholarly presses, online publications, specialist journals and the like.

RESEARCH INTO COMMUNICATIVE AND LEARNING PROCESSES

As interpreters, as well as preservers, of heritage significance, CHOs have also had to develop theoretical and applied research expertise into how these diverse audiences experience and process heritage information and images. CHOs are in the business of having constantly to discover and tell stories in ways that appeal to consumers already schooled in sophisticated information processes. As a result CHOs have become vital components of the educational infrastructure of modern industrialised countries. By comparison with most educational institutions their remit is also exceptionally wide. They must reach and retain audiences from the very young to the elderly, from those with tertiary qualifications to those with none at all, from those who speak English as their first language to those who do not, from international tourists wanting instant histories to specialist local audiences looking for reflections of their particular experiences.

SOCIAL APPLICATIONS FOR INFORMATION TECHNOLOGIES

CHOs find themselves at the forefront of developing human uses for new information and multimedia technologies, particularly in the customising of software applications and the development of useful content for these technologies. Today, the collections of museum, libraries and heritage organisations are likely to be digital as well as material, and their audiences may live thousands of miles from the physical space where the institution is located. Web portals, narrow and broadband broadcast facilities, and video, film and print productions have become as important as the display cabinets of old. Partnerships with
industries and university researchers to generate new methods of communicating their stories have become commonplace.

A few examples:

The Discovery Centre of the CSIRO, the Powerhouse Museum in Sydney and the National Museum of Australia have collaborated with advanced computing specialists from the Australian National University’s Super Computer facility to develop new museum applications for the virtual reality immersion system known as ‘The Wedge’, designed and built at the ANU. The National Museum collaboration, for example, has produced the brilliantly creative ‘kSpace’, where children from six to fourteen are encouraged to create cities or motor vehicles of the future. After designing their prototypes on a series of touch screens, children can see their inventions projected in a dazzlingly colourful 3D virtual reality theatre. This innovative project has also been linked into national and state educational curricula in a way that demonstrates the dynamic integration of the cultural heritage and educational sectors.

The South Seas Project is funded by a Strategic Partnership with Industry Research and Training grant (SPIRT) and is a collaboration of scholars, curators and technicians from the ARC Special Research Centre for Cross-Cultural Research at the ANU, the Australian Centre for Science, Technology and Heritage in Melbourne, and the National Library of Australia. These researchers are developing a networked hypermedia encyclopaedia of ocean voyaging and cross-cultural encounter in the age of Enlightenment that at the same time disseminates via the internet the library’s unique manuscripts, maps and visual materials on the Pacific voyages of Captain Cook. In the process, researchers have had to pioneer new forms of software application capable of generating stable and reliable standards of documentation and of absorbing future data increases without damaging the overall coherence and integrity of the project. The result will be both a highly innovatory educational product and a set of information tools that can be applied to a wide variety of other hypermedia uses.
A systematic series of information and multimedia research and development projects are also under way in a new Consortium for Research and Information Outreach (CRO), which brings together a complementary synergy of museum curators, information experts and researchers from the National Museum of Australia, the Australian National University, and the Australian Institute of Aboriginal and Torres Strait Islander Studies. One of the first fruits of this collaboration, an innovative CD Rom application called People of the Rivermouth, will be displayed at this summit. It presents complex anthropological research into kinship patterns and customary life of an aboriginal community at Maningrida in Arnhem Land, in ways that impart vivid, multi-sensual viewer understandings. Its unique multimedia template will be used to develop a further range of 'virtual exhibitions' centred on the origins and development of spectacle, multimedia and special effects in Europe, Australia and Asia.

A different type of applied research project is being pioneered by the Institute of Cultural Research (ICR) in Sydney. Combining researchers and experts from the University of Western Sydney, the University of Technology, Sydney, and the Migration Heritage Centre of New South Wales, the ICR has developed collaborations with a variety of cultural heritage institutions and local government agencies to enrich the social life and stimulate the civic infrastructures of Sydney's newer migrant communities and precincts.

One of these, undertaken with the Art Gallery of New South Wales (AGNSW), is developing an exhibition of Asian religious art and culture in close consultation with local migrant communities in the inner West of Sydney. Innovative in its combination of community and scholarly expertise, the exhibition also works to attract visitors from outside conventional museum constituencies. A second ICR project, 'Generate', works with the Migration Heritage Centre and the Powerhouse Museum to explore how youth of Middle Eastern and Asian backgrounds evolve their sense of identity within contemporary popular culture. As well as helping to counteract disabling negative values and perceptions of ethnic migrant youth, this project develops a series of practical youth training and employment outcomes.

A similar series of research and development heritage collaborations at the University of South Australia aim to reinvigorate economic and civic infrastructure in rural South Australian towns and communities. The University's Australian Architecture Archive and History Research Group are involved in a series of projects with local museums and heritage organisations to develop visitors centres and architectural innovations for Broken Hill and for Aboriginal communities at Warburton. They are also undertaking heritage surveys for the towns of Woomera, Eden Park and Mitcham.

One aim of such projects is to build, in areas where cultural and civic infrastructure is relatively thin, a new type of blended cultural research precinct. This seeks to link universities, CHO's, and tourist and other businesses so as to create research and entertainment consortia. Out of these institutional clusters, new economic and culturally dynamic synergies are being generated. Research experiments and productive economic and social outcomes are treated as mutually interactive. Tourism becomes a magnet to other activities.

Decades ago, the social wastelands of London's Financial City area in the East End and Docklands were revitalised by building a series of cultural and heritage institutions as nodes of new economic and cultural activity. Goldsmiths University, the Maritime Museum at Greenwich, the Museum of London and the Barbican cultural complex now routinely join together in a series of economically and culturally productive relationships. Tourism and its penumbra of service industries now flourish in the district.
Screens from the CD-Rom application 'People of the Rivermouth'.

The Formalities of Death

Recovery of the bones

Narrator:
His nephews, joking partners and other relatives arrive at the tree. The women stay back at the camp preparing food.

Aborumnga 1:
An evil spirit may seize us. Light a fire.

Aborumnga 2:
Bundik burroga ngarla ngana-ay-wa.
Yes, let’s make a fire.

Aborumnga 2:
Birri-warrcha amgotipa...
You two climb up.

Narrator:
The nephews ascend. When they see their uncle’s bones, they cry with anguish.
Most Australian cities have evolved such cultural research precincts quite unconsciously in areas where CHOs and Universities happen to be physically contiguous, particularly when these locations are also attractive to tourists. Networks of cultural institutions, businesses and university research bodies cluster together around Circular Quay in Sydney, along the south riverbank of Brisbane and Melbourne, along the Torrens River near the University of Adelaide and in the Freemantle docklands of Western Australia.

Most recent of such precincts is the Acton Peninsula in the ACT, where this summit is taking place and a national research cluster is being consciously developed. Here we find colocated such institutions as the National Museum of Australia, the Australian Institute of Aboriginal and Torres Strait Islander Studies, ScreenSound Australia, the Learned Academies of Science, the Social Sciences and the Humanities, and the ANU’s Humanities Research Centre, Centre for Cross-Cultural Research, Asia Pacific School of Economics and Management and new National Europe Centre. This dynamic cluster of heritage, teaching and research bodies is beginning to work together, on the pattern of the Smithsonian on the Mall in Washington DC, to develop a series of intermeshed research and development initiatives that will generate innovatory research, mount joint educational and training programs, and attract a variety of tourist constituencies. One aim will be to disseminate this research to national publics through electronic and broadcasting portals, and to attract private investment capital into the area so as to stimulate further innovation.

CHOs have also shown themselves acutely aware of the need to look outwards beyond Australian national horizons to engage in intellectual collaborations, exchanges and dialogues of an international and transnational kind. It is a truism that the building of new knowledge economies in the future must be done in concert with the explosive forces of globalisation.

Museums, art museums and CHOs have long cultivated international relationships through their need to negotiate international loans and exchanges, to repatriate or share key cultural heritage items, and to collect items of national heritage that have been dispersed abroad.

In the past decade, however, an awareness of the need to develop international linkages for the pursuit of research has led to a much more systematic and integrated process of international dialogue and cooperation between universities and CHOs. The linchpin of this process has been the international Consortium of Humanities Centres and Institutes (CHCI), administered from Harvard University under the directorship of Professor Marjorie Garber. This US-based but internationally focused organisation gathers together a huge network of university humanities centres, private funding foundations and CHOs. Membership includes the Getty, Smithsonian, Field, and Huntington Museums, and the Ford, Getty and Rockefeller Foundations. The CHCI coordinates information exchanges, develops joint policy initiatives, brokers national and international collaborations, and lobbies government and funding bodies.

In 1999, on the initiative of the ANU’s Humanities Research Centre, assisted by Griffith University and the Queensland Art Gallery, the CHCI convened its annual conference in Brisbane, the first time it has gathered outside the USA. Building on the success of this meeting, an Australian Consortium of Humanities Centres and Institutes, has been founded to develop international and national research, funding and teaching collaborations between university and public CHOs.

Already this has produced several collaborative global R&D projects. One of the most ambitious will link the Humanities Research Institute for all ten campuses of the University of California in the USA, with James Cook University, the Humanities Research Centre,
Conclusion

In the new global, information-based, knowledge economies of the future, the ability to be innovative both in generating research and applying it for social use is more important than at any other time since the onset of the first industrial revolution in the second half of the eighteenth century. Yet the psychic and intellectual properties that generate a creative, innovative, and critical culture during times of bewildering social and technological change remain elusive.

The governments of Britain, Singapore and New Zealand, to take examples of clear relevance to Australia, have recently stressed the precious pioneering spirit of innovation. Australia needs it.

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Integration of Science, Technology and Cultural Heritage Research

It is typical of such collaborations also, whether national or international, that no sharp distinction is drawn between cultural, scientific and technological research. The above initiative, for example, has already engendered linkages with the Rainforest and Reef Cooperative Research Centre in Cairns and Townsville, as well as a variety of ANU faculty involved in arts, computing, forestry, geology and resource management research, and, of course, with the full spectrum of scientific, cultural and environmental curatorial staff of the National Museum of Australia.

The report of November 2000, 'Knowledge, Innovation and Creativity', commissioned by the Ministry of Research Science and Technology in New Zealand, stressed that innovation and creativity are complex social and cultural processes that cannot be achieved without close arts-science linkages and convergences. The idea that innovation and creativity can be fostered in a society by cordonning off the cultural from the technological and scientific spheres was seen as both unrealistic and myopic. The report states, “One sign of this convergence is the increasing use of ‘creativity’ in scientific and technological contexts; another is the use of ‘industry’ and ‘product’ in arts contexts.”

ANU, and the National Museum of Australia. The project ‘Peoples and Places’ proposes to focus on urgent common problems of environmental heritage in rainforests and deserts of Latin America, the United States and Australia. Such global collaborations and relationships not only gather new sources of expertise and funding for Australia’s nascent knowledge economy, but enable us to keep in the forefront of the breathtaking pace of change within global information environments.

INTEGRATION OF SCIENCE, TECHNOLOGY AND CULTURAL HERITAGE RESEARCH

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CONCLUSION

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