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Creating Inspiration:

Using the visual and performing arts to promote environmental sustainability

by David Curtis, Ian Reeve, Nick Reid

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Researcher Contact Details

Associate Professor Nick Reid
Ecosystem Management, School of Environmental
Sciences and Natural Resources Management
University of New England, Armidale NSW 2351

Phone: (02) 6773 2759
Fax: (02) 6773 2769
Email: nrei3@une.edu.au

David Curtis and Ian Reeve
Institute of Rural Futures
University of New England
Armidale NSW 2351

(02) 6773 2220
(02) 6773 3245
david.curtis.une.edu.au, ireeve@une.edu.au

In submitting this report, the researcher has agreed to RIRDC publishing this material in its edited form.

RIRDC Contact Details

Rural Industries Research and Development Corporation
Level 2, 15 National Circuit
BARTON ACT 2600

PO Box 4776
KINGSTON ACT 2604

Phone: 02 6271 4100
Fax: 02 6271 4199
Email: rirdc@rirdc.gov.au
Web: <http://www.rirdc.gov.au>

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Foreword

This publication considers some of the ways that the visual and performing arts can influence environmental behaviour, and how they can be utilised to promote environmental sustainability. It analyses data from several case studies, interviews with key informants and overseas field work, coupled with review of the literature. It is aimed at professionals and funding bodies working in natural resource management (NRM). A companion publication provides guidance to on how to make better use of the visual and performing arts in NRM programs

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Peter O'Brien

Managing Director

Rural Industries Research and Development Corporation

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Executive Summary

What the report is about

This report summarises research that was undertaken into how the visual and performing arts shape environmental behaviour and how they might better be utilised by those promoting environmental sustainability, particularly in rural areas.

Australia faces many environmental challenges. Because these challenges are a result of the combination of everyone's actions, they require the involvement of the whole of society to be reversed. Such problems include the greenhouse effect, soil salinity, declining water quality, declining biodiversity and urban sprawl. Methods need to be found to engage the whole of society, and this project investigated the roles that the arts might in providing that engagement.

Who is the report targeted at?

The report is targeted at policy makers, extension practitioners, community facilitators, regional and urban planners, educators, organisers of community events and festivals, and people working in the natural resources and the arts.

Background

After over 20 years of involvement in community environmental programs from either a research role or through direct engagement, we came to realise that many of the key environmental challenges that Australia is facing require the engagement of the whole of society to be reversed. One of us (Curtis) had worked extensively with artists, musicians and performers in rural extension and community facilitation, and had come to respect the valuable role that the arts had in motivating people. He had found that the tools of the performer and visual artist allowed the incorporation of multiple meanings and symbolism which more scientific means of communication lacked. Furthermore some people working in the community arts sector were observing that certain types of arts practice may be integral in ecologically sustainable development, in a post-materialistic society, and there appeared to be a convergence between the community arts and community initiatives such as Landcare. We wondered if the arts might have an important role in engaging the wider community to work towards sustainability that was being under-utilised, especially as the arts appeared to be so integral in the shaping of values in societies, whether that be in affirming religious faiths or in promoting consumerism through the use of advertising. There was a lack of information about using the arts in the extension and community facilitation context.

Consequently, we undertook this research project to investigate how the visual and performing arts shape environmental behaviour, and in particular how they might be used by those working in the natural resources sector to create changes in behaviour that are more environmentally sustainable. The project was jointly funded by Land and Water Australia and the Rural Industries Research and Development Corporation.

Aims/objectives

1. To review the overseas experience to investigate how the arts are used in shaping perceptions and behaviour towards the environment.
2. To use a series of events that incorporate the arts and environmental repair, to evaluate the role of the arts in changing people's environmental behaviour.
3. To produce a multi-media kit and training package for extension agents, community-based organizations and R&D practitioners that helps them to incorporate the arts into their extension.

Methods used

As part of the research an investigation of the overseas situation was undertaken. This involved a two month study trip to Canada, USA, Norway, UK and Italy to interview practitioners and to observe examples of where the arts have been used to assist in environmental sustainability. The main aims of the trip were to find case studies, projects, and communities where the arts were linked to improving environmental sustainability, and to interview artists who had linked their practice to environmental sustainability in some way. This field work was supported by a literature review, and attendance and presentation of papers at two international conferences, which, in part, dealt with these issues. A second major part of the project involved the examination of several case studies in NSW which incorporated the visual or performing arts in environmental initiatives. The case studies included concerts, events, festivals, conferences, and a devised theatre production in schools, and embraced issues including the greenhouse effect, land, water and vegetation issues, wetlands, and general conservation.

In the selection of research methods, the approach was one of methodological pragmatism that drew from a range of social science paradigms according to circumstances. In some stages of the project a quasi-grounded theory approach was used that interlaced data collection and analysis to ensure that emerging concepts and theoretical constructs were firmly grounded in the life experience of the research participants. In grounded theory, the theory is allowed to emerge from interviews with key informants and case studies. Literature and data hold equal status, the literature being accessed as it becomes relevant rather than being given special treatment. In other stages of the research social constructivist methods such as focus groups and in-depth semi-structured interviews were employed. Through data collection prior to, and after arts events, the project approach capitalised on the strengths of logical positivist methods to provide evidence of the impact of arts events and the causes underlying these impacts.

Results/key findings

This investigation led to the conclusion that there are three main pathways through which the arts can shape behaviours that are more environmentally sustainable, and which might be successfully utilised by extension practitioners and others wishing to build capacity in the community for environmental sustainability. These pathways are:

- communicating information
- connecting us to the natural environment and
- catalysing environmentally sustainable economic development.

The first pathway, communicating information, may be manifested in the education or extension/adult education context, or in communicating information to the general public. The visual and the performing arts have a special ability to synthesise complex ideas and to present them to a non-specialist audience in an engaging form. Well designed images, can articulate a vision for an ecologically sustainable landscape that encapsulates best practice land management. Alternatively,

some art forms are good at prompting new ways of looking at problems. Many political cartoons, environmental theatre or documentary films function in this way.

The second pathway is to subtly connect us more meaningfully with the natural environment. Many artists are inspired by the natural environment, and their artworks or performances can evoke a strong sense of connection without being didactic. Some works of art achieve this through evocative representations of the environment, others achieve it by being in the natural environment itself. Large art-environment events can have a celebratory role which motivate and involve communities. Such events can strongly move the emotions in a positive way, and stimulate people to reflect on their relationship with the environment.

A third pathway is where the arts catalyse measures to improve sustainability. In the rural context this might be achieved through integrating certain art forms with farm forestry, rural regeneration, and land rehabilitation initiatives, or where farmers incorporate principles of landscape design into farm planning. In a different way the arts have a strong community development role. In urban areas public and community art can be incorporated into urban planning designs which reduce greenhouse gas emissions through excellent public transport and facilities for walking and bicycling.

There has been an evolution in arts practice over the last few decades which have seen the development of an increasing number of participatory art-forms. This is being manifested particularly in the community arts, but also in the practice of particular artists. It mirrors the evolution of a community development model for extension delivery, shown in Landcare and regional delivery mechanisms. Considerable opportunity exists for a convergence of the participatory art forms with community development models for environmentally sustainable development in rural areas.

Implications for relevant stakeholders

This project has shown that the visual and performing arts have an important role in capacity building for environmental and ecological sustainability. Consequently, use of the arts should be incorporated into natural resources programs and environmentally sustainable development in rural and urban settings. These findings have implications for communities, industry, and policy makers.

Recommendations

The following recommendations arise from the research. These recommendations are targeted at policy makers and implementers of policy, in both the arts and environmental areas, as well as the private sector.

RECOMMENDATION 1: Funding programs which seek to create shifts in environmental behaviour (including natural resources management programs) should broaden their funding guidelines to include arts-based projects, where such projects can demonstrate environmental outcomes, or outcomes in improved capacity building.

RECOMMENDATION 2: Consistent with the whole-of-government approach, the findings of this project should be brought to the attention of policy makers in arts and cultural affairs in Commonwealth and State Governments. There should be a review of funding programs for the arts to ensure that there are no barriers to the participation of regional and community artists, and that the programs contain components specifically targeted at art and natural resource management issues.

RECOMMENDATION 3: Funding from both the private and public sectors in the arts and natural resources management should sympathetically consider community arts project and other forms of participatory art forms which have an environmental theme or outcomes.

RECOMMENDATION 4: Research should be encouraged into the greenhouse emissions of the arts compared to other sectors in the economy, and the reductions in emissions that might be achieved by investment in the arts sector, compared to investment in other forms of emission reduction.

RECOMMENDATION 5: A greater proportion of public investment in public infrastructure and public spaces should be directed to community and public art, particularly that which is linked to improving environmental sustainability. Incentives should be provided to encourage private investment in public and community art. Policy research should be undertaken into the means by which public and private investment can be shifted towards the community and public arts, particularly where such art can be shown to have environmentally favourable outcomes.

RECOMMENDATION 6: Urban and regional planning authorities and regional development agencies and organisations should integrate the arts and cultural development into their operations and strategic plans.

RECOMMENDATION 7: Research funding should be directed towards investigating the link between cultural renewal in rural towns and centres and its effect on how land managers near those centres view and manage their own land, and whether cultural renewal of rural towns is a route to improving land management in the hinterlands around them.

RECOMMENDATION 8: Extension and natural resource management agencies should work with the arts sector, and in particular community artists, on joint projects and programs. Artists should be included in planning processes.

RECOMMENDATION 9: Further research should be funded into investigating the roles of festivals and events in normalising and promoting environmentally sustainable behaviour.

RECOMMENDATION 10: Natural resources agencies and organisations seeking improvement in general environmental behaviour should work with festivals and large art events, to incorporate environmental themes and encourage them to adopt best environmental practice in the way that they are run.

RECOMMENDATION 11: Where natural resources agencies and organisations seek to involve the arts community, adequate remuneration for artists should be built into budgets.

RECOMMENDATION 12: State and Federal Governments should provide a unified response to simplify insurance requirements and ensure that costs are not prohibitive for community events.

RECOMMENDATION 13: If projects are developed with schools in mind, they should be integrated with the curriculum in collaboration with teachers, and provision for relief time may need to be built into budgets.

Chapter 1: Introduction

Australia's natural environment continues to deteriorate with problems of immense scale and complexity. The 2001 State of the Environment report summarises the situation in Australia regarding the atmosphere, coasts and oceans, land, inland waters, biodiversity, natural and cultural heritage, and human settlements. In its Executive overview it concluded that:

Pressures on the Australian environment continue to grow. ... Despite [certain] initiatives ... the state of the Australian natural environment has improved very little since 1996, and in some critical aspects, has worsened. (Australian State of the Environment Committee, 2001)

According to many of the world's scientists, the world's present development path is not sustainable (Kates *et al.*, 2000). Similarly, in Australia many scientists express concern at the rate of environmental degradation in Australia and whether environments are sustainable in the long term:

In two and a half centuries of industrial civilisation there has been a tenfold growth in global population, great increases in economic activity and food production, a markedly enhanced life expectancy, and generally huge achievements in material prosperity, employment prospects and human well-being ... But the price of this progress has been widespread land and water degradation, loss of species biodiversity and inequalities in resource distribution both between and within industrialised and developing countries. The excessive combustion of fossil fuels ... is also contributing to significant climate change which, in turn, is threatening the very ecosystems on which all humans depend for life. (Goldie *et al.*, 2005b)

...many Australians continue to live, manage their land and exploit their natural resources entirely in the here and now, as if there were no tomorrow and no yesterday. (p. viii) ... Now, closeted in de-natured suburbs and high-rise apartments, many Aussies have lost most sense of linkage with the grand and rich web of life and time. (p. ix) ... despite good intentions, the way we Australians make our living from an ancient and fragile land is seriously damaging and unsustainable (p. 1). (Archer & Beale, 2004)

The 1987 World Commission on Environment and Development's report *Our Common Future* defined sustainable development as 'that which meets the needs of the present without compromising the ability of future generations' and say that '... if we are not sustainable as a human species, our children or their children will die very young. *Homo sapiens* could quite quickly become extinct. It is as simple and as serious as that' (Goldie *et al.*, 2005b).

The evidence suggests that progress in the human economy has been at the expense of the earth's natural assets. We are accelerating towards collapse of the natural capital on which human society and its economy depends. We are not living sustainably. (Goldie *et al.*, 2005a)

Several issues continue to threaten the sustainability of Australia's natural environment, including soil salinity, declining biodiversity and vegetative cover, growing greenhouse gas emissions and urban sprawl (Australian State of the Environment Committee, 2001). Part of the reason for the continuing decline of Australia's environment is a technical failure in getting information to all in the community, and convincing people to change their land-use management or patterns of consumption so that they are more environmentally sustainable. Another reason is that some of our most intractable issues are what the social theorist P. Roqueplo describes as 'accidents in slow motion' (Roqueplo, 1986) and have a 'high structural dependence'. That is, the ability of the state to initiate policy that would control environmental problems is constrained by governments' dependence on the private sector which has a range of options open to it to influence the government (Bernhagen, 2001; Bernhagen & Brauning, 2003; Lindblom, 1981), and which therefore make these problems resistant to policy change. Despite small improvements, such as the rise of recycling, the message of environmental sustainability is dominated by the discourse of consumption and the paradigm of the need for economic growth (Eckersley, 1998; Hamilton, 2003; Ungar, 1998).

There has been a substantial increase in attention being given to Australia's environment by governments, non-government organizations and the community in the last two decades. For example the Australian Environment Directory runs to 422 pages and includes hundreds of government and non-government organizations in Australia that are involved in environmental management in some way

(Stirling, 2000). Federal, State and Local governments have taken many actions to try and reverse environmental degradation, including: legislation; extension; community facilitation; grants and other incentives; education programs; and using non-government organisations as agents for change (such as Landcare, Greening Australia, and the Australian Trust for Conservation Volunteers) (A. Campbell, 1994; Conacher & Conacher, 2000; Curtis, 2000). The community has responded also (in fact it is often the driving force for change), with the formation of community organisations (such as Landcare, Greening Australia, tree groups, corridor groups, bird groups), and various protest and lobbying campaigns. Scientific research and pioneering individuals have also been an important part of the community and government responses (Curtis *et al.*, 1995; Saunders *et al.*, 1995).

After over 20 years of involvement in community environmental programs from either a research role or through direct engagement, we came to realise that many of the key environmental challenges that Australia is facing require the engagement of the whole of society to be reversed. One of us (Curtis) had worked extensively with artists, musicians and performers in rural extension and community facilitation, and increasingly came to respect the valuable role they seemed to have in motivating people, and the tools of the performer and visual artist allowed the incorporation of multiple meanings and symbolism which more scientific means of communication lacked (Curtis *et al.*, 1999; Curtis & Dunsford, 1998; Curtis *et al.*, 1995; Dunsford & Curtis, 1998). Furthermore some people working in the community arts sector were observing that certain types of arts practice may be integral in ecologically sustainable development, in a post-materialistic society (e.g. Fox, 2002), and there appeared to be a convergence between the community arts and community initiatives such as Landcare. We wondered if the arts might have an important role in engaging the wider community to work towards sustainability, that was being under-utilised, especially as the arts appeared to be so integral in the shaping of values in societies, whether that be in affirming religious faiths or in promoting consumerism through the use of advertising. There was a lack of information about using the arts in the extension and community facilitation context. Consequently, we undertook this research project to investigate how the visual and performing arts shape environmental behaviour, and in particular how they might be utilised by those working in the natural resources sector to create changes in behaviour that are more environmentally sustainable.

The project was based on interviews with about 90 people in Australia and overseas, including farmers, extension officers, Landcare group members and people working in the arts, as well as several case studies that incorporated the visual or performing arts in environmental initiatives. The case studies included concerts, events, festivals, conferences, and a devised theatre production in schools, and embraced issues including the greenhouse effect, land, water and vegetation issues, wetlands, and general conservation.

The project was jointly funded by Land and Water Australia (LWA), and the Rural Industries Research and Development Corporation (RIRDC). Both projects had the same name and the bulk of the funds came from LWA. The combined project had as its major outputs a PhD thesis, a kit for extension agents and a set of policy recommendations. The funds from the RIRDC assisted with the review of the overseas situation, and contributed to the case studies and the extension kit. The LWA funded component of the project still has some time to run, and the kit and the thesis, jointly funded by both funding bodies, are still in production. Therefore, by agreement with RIRDC, we focus in this report on the review of the overseas situation and provide the most current analysis of the case studies.

Respective roles of the investigators:

- Nick Reid (ecologist) and Ian Reeve (sociologist) – supervision;
- David Curtis (ecologist and community educationist) – data collection and writing up results

John Reid from the National Institute of the Arts (Australian National University) provided additional supervision on the PhD component of the project.

It should be noted that we come to this project from the disciplines of ecology and sociology, and not the arts, and have written this report for an audience of people working in natural resources management, rather than arts specialists.

Chapter 2: Objectives of the project

1. To review the overseas experience to investigate how the arts are used in shaping perceptions and behaviour towards the environmental internationally.
2. To use of a series of events that incorporate the arts and environmental repair, to evaluate the role of the arts in changing people's behaviour towards the environment
3. To produce a multi-media kit and training package for extension agents, community-based organisations and R&D practitioners that helps them to incorporate the arts into their extension.



Figure 2.1: Bruer og Ferge i Hardanger (Fritt etter Tidemand og Gude) [Bridges and Ferry in Hardanger (A Fantasy after Tidemund and Gude)] by Rolf Groven, 1995, 280 x 215 cm. (see section 5.1). Image: Rolf Groven.

Chapter 3: Methods

3.1 Introduction

In the selection of specific research methods, the approach was one of methodological pragmatism that drew from a range of social science paradigms according to circumstances (Crump, 1995). In some stages of the project a quasi-grounded theory approach was used that interlaced data collection and analysis to ensure that emerging concepts and theoretical constructs were firmly grounded in the life experience of the research participants (Neumann, 1997). In grounded theory, the theory is allowed to emerge from interviews with key informants and case studies. Literature and data hold equal status, the literature being accessed as it becomes relevant rather than being given special treatment (Dick, 2003). In other stages of the research social constructivist methods such as focus groups and in-depth semi-structured interviews were employed (Neumann 1997, p. 253). Through data collection prior to, and after arts events, the project approach capitalised on the strengths of logical positivist methods to provide evidence of the impact of arts events and the causes underlying these impacts (Neumann 1997, p. 62).

In social research, different research methods can give different results whether they be the survey questionnaire of the sociologist, experimental work of the psychologist, participant observations of the anthropologist, or media sources of the historian (Lowenthal, 1972). The purposeful methodological diversity that we employed enabled us to triangulate between the different types of data, to afford greater confidence in the conclusions arising from the data (Neumann 1997, p. 151).

The grounded theory approach of (Glaser & Strauss, 1967; Strauss & Corbin, 1998, 1997) influenced the way that the project was carried out, particularly in its early phases, although a suite of other methods were ultimately incorporated to enable triangulation to take place. The approach of combining qualitative/interpretive and quantitative methods/logical positivist methods was adopted to analyse some case studies, while in others a participant observer approach was employed. This technique was considered most appropriate to analyse the case studies borne out of the personal experience of researcher Curtis, notably *Nova-anglica: The Web of Our Endeavours* and the arts used in the extension context. In some of the discussion the critical theory approach was drawn on. In writing up the research, an approach was taken that focussed on presenting the data and its interpretation, rather than focussing on a theoretical framework into which the data should be forced (Wolcott, 2001). Thus literature was accessed throughout the study as it was needed.

The project drew on an action research approach in which those who were the subjects and users of the research had opportunities to guide and evaluate it. Action research is characterised by: those who are being studied participating in the research process; the research incorporates ordinary or popular knowledge; the research has a goal of empowerment and consciousness or awareness raising; the research is tied directly to political action; the researcher tries to equalise power relations between themselves and the research subjects; and the researcher assumes that ordinary people can become aware of conditions and learn to take actions that can bring about improvement (Neumann 1997, pp. 23-24).

The research was based on repeated iterations of the action research cycle: Interview informant; Develop and refine theory; Test theory through interviews; Modify theory (see Figure 3.1). Initial theories were generated from early interviews with Key Informants. The theories were refined and tested in the first art-event, modified after the first set of interviews, and then tested sequentially in each subsequent art-event. A draft training package was developed and tested in a focus group, modified and further tested in training events. Consolidating emerging insights into several national and international conference presentations enabled us to receive feedback from peers, and to further refine the interpretations from the data. Throughout the project there were opportunities for the public and the extension and research community to help shape the theory.

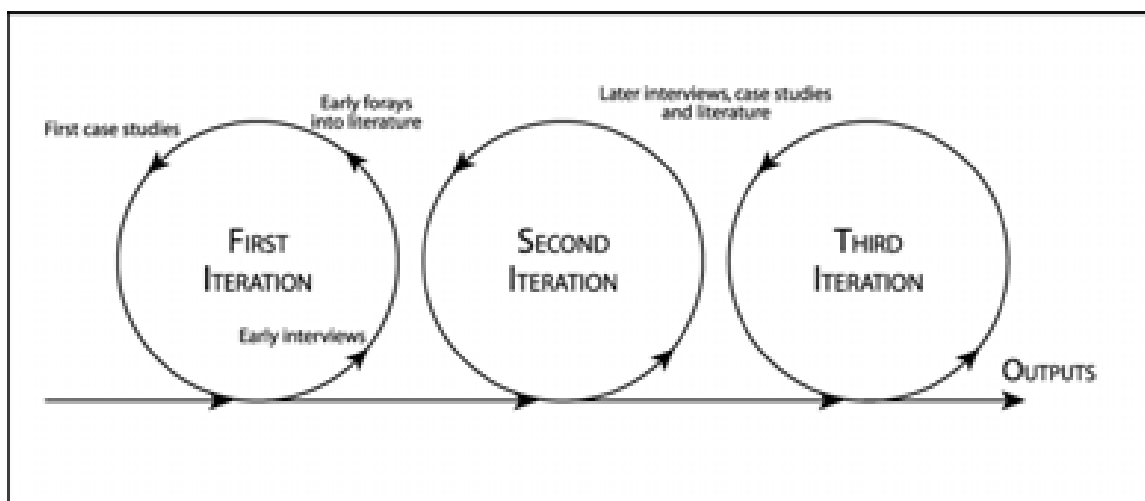


Figure 3.1: The action research approach taken in this research.

Thus the study combined both qualitative research methods and quantitative, although an emphasis was placed on qualitative. Qualitative research methods differ from the quantitative in several key ways (Neumann 1977, pp. 328-330). In the qualitative research method the ‘researcher begins with a research question and little else’ and the ‘theory develops during the data collection process’ (Neumann 1977, p. 344). This method was chosen for this study because the subject under examination was deemed unsuitable to do along strictly positivist lines. Whilst it could on principle be possible to set up a series of experiments to test the hypothesis that the arts affect environmental behaviours and to analyse the data quantitatively, it was felt that such experiments could inevitably tell us a lot about very little. The topic is broad, and covers the disciplines of sociology, psychology, education, extension theory, the visual and performing arts, as well as several social science paradigms and branches of sociology, including sociology of the arts, environmental sociology and rural sociology. Because the study was intentionally exploratory, it was considered more beneficial to tackle the issue starting with grounded theory which allows the hypotheses and theory to emerge from the interview process and the case studies.

3.2 Methodological planning and networking

The early period of the research involved methodological planning and networking to ensure that the study was both rigorous and cognisant of research and arts events already occurring in Australia.

Three Reference Groups were established, one each of academics, artists, extension/Landcare staff. Each consisted of 5-9 experts in the particular field. These groups, and individual members, provided on-going consultation and advice throughout the project and commented on the process of development and refinement of hypotheses. The Academic Reference Group was used to refine methodological and analytical approaches. The Artists Reference Group was used to provide advice on networking and innovative methods to present data and extension tools. The Extension/Landcare Reference Group was used to provide advice on networking and in ensuring that the extension tools that were developed were appropriate to key audiences.

At intervals during the project, communication took place with organisations and groups, extension agents, researchers, landholders and the general public. A network of people and organisations was established which grew to over 300 by the end of the project. The network included interviewees and people associated with the various case studies. The communication took the form of written material and publications relating to the findings of the project. Each communication led to feedback and responses to the theories being developed. These responses were recorded and assisted in modifying the theory.

3.3 Data collection

The combined research project generated a large amount of data, including: notes taken in the field; direct observation notes (complete write-ups of interviews, including the physical setting of the encounter and the people present); recordings and transcripts of interviews with individuals and focus groups; relevant material relating to the participant or the case study (including written material, media articles and photographs); and a personal journal and notes which described participant observations in the various case studies, and the research 'journey'. The data collection method followed fairly closely that described by Neumann (1997), Spence (1999) and Fitchen (1991). In this report we will only be presenting data that related specifically to the overseas review, and the case studies.

3.3.1 Key informant interviews

Key Informants are people who have special expertise in a field under study, as a practitioner in the arts, extension, land management, education or some other related area (Neumann 1997, p. 374). Key Informants were interviewed throughout the project. The interview technique, data collection process and analysis were based on participant observer qualitative studies conducted by Spence (1999) and Fitchen (1991), both of whom combined opportunistic interviews with purposefully selected ones. Key Informants were based from Victoria, NSW and Western Australia. To provide an international perspective several Informants were in the UK, Norway, Italy, Canada, and the USA.

About ninety Key Informants interviews were conducted for the combined project, including about 40 people working in the arts (visual, performing, and community arts), 20 people working in an extension or community facilitation capacity, 20 people who showed exemplary behaviour towards the environment or were involved with Landcare, and several academics in related disciplines. Key Informants were interviewed either formally or informally, in some cases more than once. Many nationally significant visual and performing artists were interviewed such as John Wolseley, Charles McCubbin, Bruce Petty, Bill Leak, Michael Leunig, Reg Mombassa, Richard Weatherley, John Reid, and Bill O'Toole, as well as community artists such as Jon Hawkes, Fay White and Anna Pollock. Internationally significant artists included Ralph Steadman and Rolf Groven and theatre or arts companies such as *Welfare State International* (UK), *Bread and Puppet Theatre* (USA), *Underground Railway Theatre* (USA), *Littoral* (UK), *Druid Arts* (UK), *Evergreen Theatre* (Canada) and *Platform Theatre* (UK). In this report we will focus on the international interviewees. Appendix I list the people and groups interviewed or visited as part of the overseas review.

In selecting people to interview Curtis began with his existing network, established over many years of working in the non-government natural resources sector. The 'snowball sampling' technique was then used where further people were identified by interviewees and by members of the Reference Groups (Neumann 1997, p. 207). Artists were purposefully chosen whose work was associated with the natural environment in some way, or who appeared to use their art to change people's attitudes [usually] towards the environment. An open mind was kept regarding the forms of arts that would be examined, including amateur crafts, although to keep the project from getting too large, we focused on interviewing people who worked in the arts for a living rather than amateurs. Nationally or internationally acclaimed artists were intentionally selected, as well as regionally based ones.

Interviews with Key Informants for the took place throughout the project, from April 2003 until and April 2005. Overseas Informants were interviewed between June and August 2004. Interviews were conducted according to the protocol approved by the University of New England Ethics Committee. Most interviews conducted were semi-structured, based around a standard set of questions. As much as possible the interviews were conducted in an informal way, and even when there was a particular set of questions, the order of the questions was not strictly followed and if the interviewee set off in on a different direction to that planned, this was followed as far as possible and other questions added as required. The field research and interview techniques largely followed those of Neumann (1997, Chapter 14). Some interviews were informal and completely unstructured. The nature of most of the

interviews was in the form of a conversation about communicating ideas, and thus the interviews were often rather inconclusive and not ‘scientific’.

Most interviews with Key Informants were recorded using a digital recorder and transposed. With some interviews, notes were made during the interview and were written up afterwards. The informal interviews were not recorded; notes were made and written up afterwards. Analytic memos were written periodically. These summarised thoughts that arose from interviews and often incorporated material from the literature or the media. Analytic memos are a special type of note which ‘forges a link between the concrete data or raw evidence and more abstract theoretical thinking ... it contains a researcher’s reflections on and thinking about the data ...’ (Neumann 1997, p. 425).

3.3.2 Review of literature

A literature review was conducted to determine what was known about the role of the arts in influencing environmental behaviour. The literature review included a review of situations where the arts have been used to celebrate the natural environment, inform audiences about the environment, or sought to modify people’s behaviour or attitudes in some way. The literature review was conducted throughout the course of the research, and was guided by the data emerging from case studies and interviews.

3.3.3 Focus group interviews

Focus group interviews were done at different stages of the research. In particular, they were used to analyse two case studies (Gunnedah Two Rivers Festival, and *The Plague and the Moonflower*). In addition a focus group of extension and community facilitators and land managers was used to test the emerging conclusions. The approach with the focus groups followed the standard methods (Byers & Wilcox, 1991; Delli, Carpini & Williams, 1994; Khan & Manderson, 1992; Kitzinger, 1994; Morgan, 1997).

3.3.4 Case studies

Eight community-based art and environment activities were selected as case studies (Table 3.1). The events were selected to get a wide geographic coverage from Southern NSW to Southern Queensland. They were also selected to give a range of environmental themes and covered both rural and urban issues, and natural resources and global environmental issues. They covered a range of artistic expression including the visual arts, sculpture, music, performance, and writing. They were selected to display a range of involvement from farmers, scientists, artists, performers, extension officers, community groups, schools and tertiary institutions. In two cases they were events that one of us (Curtis) had been closely involved with some years previous to the study.

The different case studies were approached in different ways, from basing the analysis largely on participant observations and historical documentation (e.g. *Nova-anglica: The Web of Our Endeavours*, and the arts in extension material gathered from the Greening Australia case study), through to a combination of survey data and detailed interviews informants and focus groups (e.g. *The Plague and the Moonflower*) – see Table 3.1. In each case, contact was established early in the development of the event and participants were interviewed as the event progressed from the early development phase, near the event itself and where possible some months afterwards. Organisers, active participants, and audience members were interviewed. Organisers and active participants were considered to be informants for each event and were selected due to their level of involvement. Where large numbers of participants were surveyed they were invited to self-select. Audience members were selected as randomly as possible, by snow-ball sampling, inviting people to self-select or by randomly selecting people. In each case study the processes of the development of the events were described and compared. The interviews had the intention of determining what the interviewees had learned about the environment and if their behaviour had changed and why. The success of each event was analysed, as were the factors contributing to success or failure. In the course of identifying and comparing case studies other examples were discovered where the arts and the environment were closely linked.

3.3.5 Participant observations

Throughout the study Curtis acted as a ‘total participant’ which is a researcher that becomes ‘completely emotionally involved while in the field, and becomes a detached researcher only after leaving’ (Neumann 1997, p. 357). He was directly involved as a participant in some of the case study events, participating in the events, and in some cases taking a major role in coordinating them. Furthermore, he had been working in the capacity of an extension agent for 12 years with the non-government organisation Greening Australia. He drew directly from this experience and the networks that he had gained, in both identifying participants for the research and communicating the results.

3.3.6 Other field work

Throughout the research a wide range of theatrical performances, films, music concerts, art exhibitions and festivals were attended, particularly where inferences could be drawn from the way the arts were used to explore different aspects of the natural environment. Events were visited from southern Victoria and Melbourne, Canberra, and throughout NSW. Festivals attended and included the Tamworth Country Music Festival, the Deniliquin Ute Muster, the Canberra Folk Festival, the Woodford Folk Festival, and the Sydney Festival. These were written up in the personal journal and in reflective memos. The Australian field work was supplemented with field work overseas, in the UK, Norway, Canada, USA and Italy. As part of this field work Key Informant interviews were conducted, and organisations and arts events were visited which could be compared with case studies under study in Australia. Towns and cities where the arts were integrated into sustainable economic development were also visited and analysed.

Table 3.1: Case study events and methods employed in studying them

Type of Event	Themes	Where	Methods of Study
<i>Nova-anglica: Web of Our Endeavours</i> March 1998			
Visual arts, performances and associated activities	Rural land degradation, particularly dieback, and celebration of environmental repair	New England Regional Art Museum and other venues, Armidale NSW	Participant observation Historical documents and photographs
<i>Gunnedah Two Rivers Festival</i> 2002-2004			
Festival, including art exhibitions, and outdoor performances and processions	Rivers	Gunnedah NSW	Interviews Surveys Participant observation Historical documents and photographs
<i>Plague and the Moonflower</i> 26-27 October 2002 – December 2003			
Music concert and associated art exhibition	General human destruction of the global environment and the importance of nature	Lazenby Hall, Armidale NSW, Woodford Folk Festival, Qld	Interviews Focus Group Interviews Participant Observations Surveys Historical documents and photographs
<i>Riverina</i> December 2002-December 2003			
Exhibition of posters with accompanying story telling and performances	Biodiversity	Deniliquin, NSW	Focus Group Interview Key informant interviews
Jodie Hansson artist in residence project 2002-2004	Salt, water	Riverina, NSW	Key informant interview
<i>Bungawalbin Wetlands Festival</i> September 2003			
Field day and associated events	Wetland conservation	Near Lismore NSW	Interviews Survey Field observations Historical documentation and photographs
<i>Play Building on Greenhouse Effect in Schools</i> November 2002			
Performance by school children.	Greenhouse	Newcastle Armidale Wollongong, NSW	Participant observations Interviews Focus Group Testing
<i>Art in Extension – Greening Australia</i>			
Use of the arts in Extension over 10 year period	Native vegetation and land management	Northwest NSW	Participant observations Historical documentation and photographs
<i>Ecological Society of Australia conference</i>			
Use of the arts in the conference setting	Australian ecology	National event held in Armidale NSW	Participant observations Historical documentation and photographs, survey

3.4 Development of training package and policy recommendations

Towards the end of the project a training package was developed for extension agents on the best way of using the arts in environmental education and in affecting behavioural and attitudinal changes. This was primarily aimed at workers who work in an extension role with adults, particularly land managers, but has a wider application. The package was based on the findings of the research and was refined through consultation with Reference Groups and Key Informants, seeking comment via conference presentations, and through articles in newsletters. As part of this phase, training workshops and focus groups of extension staff and community facilitators were carried out as well as one-on-one interviews with extension and facilitator staff. Hypotheses from the research were road-tested and refined through these workshops and interviews, as well as the effectiveness of the training kit. In this stage a set of policy recommendations were also developed.

3.5 Analysis of data

In total about 200 interviews were undertaken in the course of this research, of both Key Informants and participants and audience members in the case studies. The amount of interview data and number of interviews was such that a microscopic analysis as advocated in phenomenological studies and by theorists such as Strauss and Corbin (1998) was not feasible. Accordingly a similar method of analysis was used as Spence (1999), which involved going through each interview and identifying the main themes. Transcripts were coded by main themes and then the material relating to each theme collected together and more closely analysed and summarised. The interview transcripts were passed through several times. An initial pass through provided a framework for the coding. The interviews were coded for broad themes, largely based around the particular questions asked. Themes and sub-themes were connected within and across categories. Transcripts from Focus Groups were treated in a similar way. Other qualitative data, including historical documents, journal entries, participant observations, informal interviews, and media clippings were also coded.

Three methods of analysis in interrogating the data were used (Neumann 1997, Chapter 16). The technique of Analytic Comparison was used, where elements that were common between cases were highlighted, as well as cases that were similar but different in particular aspects. The technique of Successive Approximation was also used, where the data went through successive approximations of refinement. This was done through the use of analytic memos combined with the periodic presentation of emerging concepts in conference papers. Comment was sought at different times from particular Reference Group members, and the concepts further refined. The Illustrative technique was also used, where illustrative were examples selected of each main theme.

Quantitative data gained through surveys were subjected to a statistical analysis using the software SPSS (SPSS Inc., 2001).

Chapter 4: The arts and environmental behaviour

The introduction to this report briefly mentioned the state of Australia's environment. It is assumed that readers of this report will be familiar with the literature that describes many of the environmental problems that affect Australia so they will not be reviewed here. Unfortunately, evidence of the problems are everywhere evident, including dwindling natural areas, the increasing spread of cities, polluted rivers and oceans, dwindling biodiversity and water supplies, soil that is degraded through salinity, erosion and encroaching desertification, and atmospheric pollution.

Many factors influence how individuals and particular communities behave towards the environment and how these behaviours can change. These include: psychology and values (Gooch, 1995; Stern *et al.*, 1993), beliefs, attitudes (Heberlein, 1981), life experience (Hallin, 1995), moral, ethical and altruistic reasons (Hallin, 1995), thrift (Hallin, 1995), education (Howell & Laska, 1992), socio-economic group (urban/rural, liberal/conservative, young old) (Howell & Laska, 1992), the influence of the media, propaganda and advertising (Scott & Willits, 1994), access to information (Scott & Willits, 1994), economic advantage (Hallin, 1995), gender (Scott & Willits, 1994; Stern *et al.*, 1993), direct experience of environmental degradation (Gooch, 1995), direct experience of the natural environment (Archer & Beale, 2004), exposure to positive motivational techniques such as incentives or coercive motivational techniques such as regulations (R. De Young, 1993; Dwyer *et al.*, 1993), national culture (Gooch, 1995), symbolic beliefs (Cary, 1993), the attitudes of leaders, awareness of the consequences of one's actions (Schwartz, 1968), history, social peer group pressure, exposure to pioneering individuals, the social milieu *viz a viz* political lobbying and action and the activities of community groups, and exposure to information and scientific research. It is the sum total of all these influences on individuals and communities that combine to create our whole society's impact on the environment (Figure 4.1).

Underlying values and attitudes are keys to understanding how different people behave towards the environment (Sandall *et al.*, 2001). Attitudes depend on a person's beliefs, which in turn are influenced by what one knows. Because a person can continue to gain knowledge, their beliefs (and hence attitudes) can change over time. Values are more deeply held and form in one's youth and tend to not change much over the course of one's life. (Sandall *et al.*, 2001).

The arts are defined here as creative and interpretative expression through theatre, literature, music, visual arts, and crafts (Costantoura, 2000). The UNESCO definition of an artist is:

... any person who creates or gives creative expression to, or recreates works of arts, who considers his [*sic*] artistic creation to be an essential part of his life, who contributes in this way to the development of art and culture and who is or asks to be recognised as an artist, whether or not he is bound by any relations of employment or association. (UNESCO, 1980).

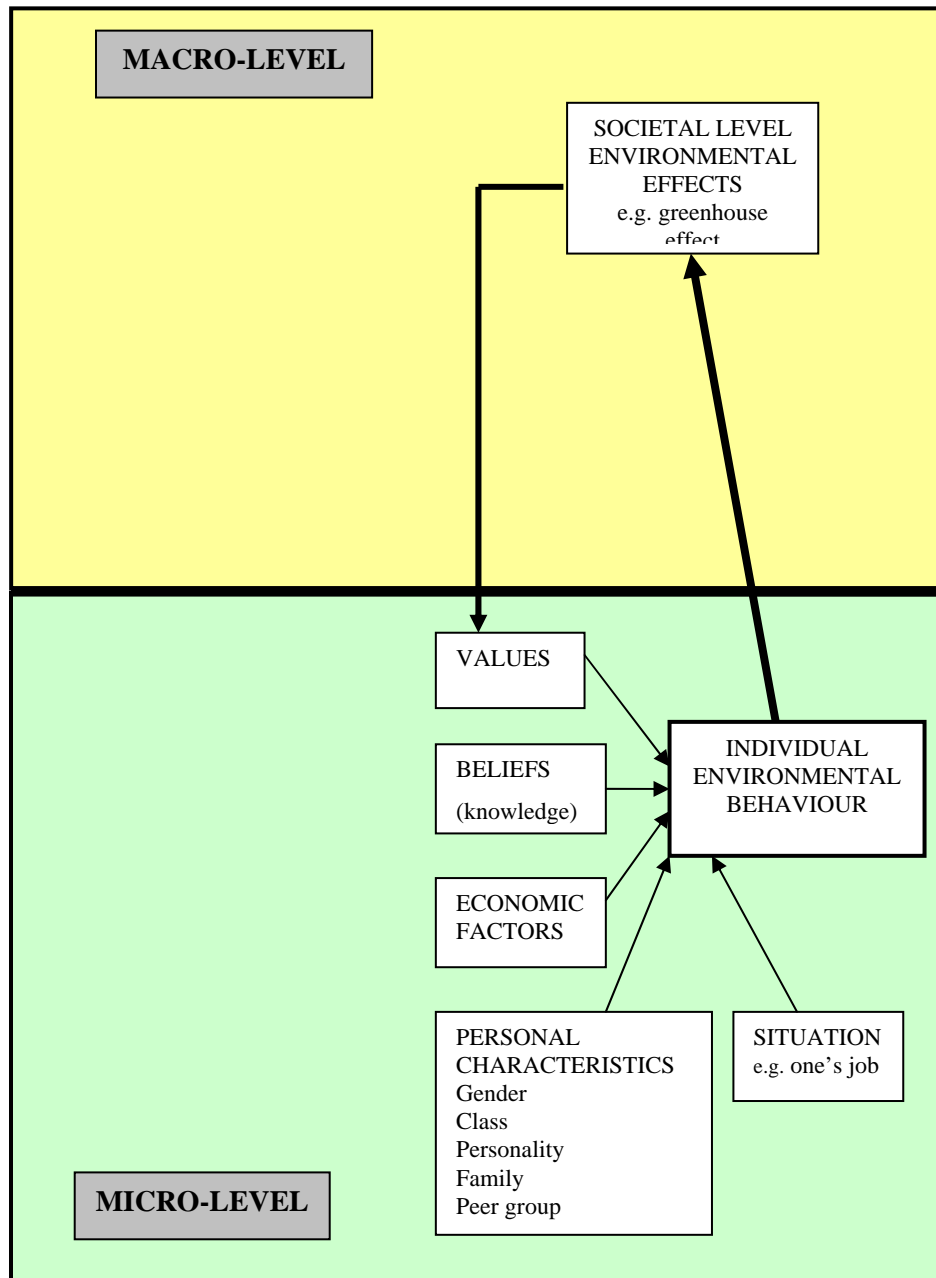


Figure 4.1: Factors that affect environmental behaviour.

Performing and visual arts covers a huge range of activities (Alexander, 2003). Based on the UNESCO definition Throsby & Thompson (1994) define a series of occupations by art form, *viz*: writer, craftsperson, visual artist, actor, dancer/choreographer, musician/singer, composer, community artist. The arts overlap or merge with craft, fashion, advertising, design and style and many artists end up finding work in these other industries. There are also many other professions that impinge on the arts, including: art galleries; financial institutions; funding bodies; and teaching (art, drama, dance, music). The arts also include amateur artists/performers and professionals. For the purposes of this research the arts shall be defined very broadly to include all of these elements, along the lines of Zolberg (1990) and Alexander (2003). Art sociologists tend to be less interested in the different subgroups of the arts and treat the arts generally, whereas aestheticists tend to be more interested in the different types of art and what constitutes real 'art'. Whilst the project is inclusive with regards to the art forms that it treats, some art forms are more applicable than others and we have focused on dance, music, theatre, drama, sculpture, painting, cartoons, installations, events, community arts, and environmental/ecological art.

The arts include a vast field of human knowledge and practice, and are far beyond the scope of this study to deal with in any but a small way. They can be classified in different ways, for example by period, by art-form, or as high (elite) or low (popular culture) (Alexander, 2003). When people think of the arts they tend to think of the elite forms and not the wide range of experiences that the arts include (Costantoura, 2000). We have had to narrow our field of view to where the arts impact on environmental behaviour, but even so that includes a very wide range of arts practices. There is an increasingly large arts practice based around participatory models, which include the community arts (Hawkins, 1993), and events and festivals, and these have emerged as a key area of the arts that have relevance to our investigation. The community arts are a practice, where typically a community artist works with individuals and groups from a community to create an artwork or series of art works or performances. There is a strong emphasis on the process of production and community inclusion. Some artists work partly on their own practice for some of the time and on community arts projects at other times, while others work solely as community artists. Community arts projects are varied, and the practice is one that has evolved in Australia over the last three decades. Often the projects are used as a means to assist a community to include socially excluded groups such as ethnic minorities, or disadvantaged youth, or to celebrate hitherto unrecognised aspects of community culture, such as working class culture or women's crafts (Hawkins, 1993; O'Hara, 2002). Many projects have an environmental focus.

Much of the arts could perhaps be seen to have little bearing on this topic, although there are many artists that do engage with the natural environment in some way, as this report will show. However, just as scientists are evolving an understanding of the natural environment and the problems of human impacts, artists too are pursuing a parallel process of understanding. Like ecologists, some artists immerse themselves in the natural environment and through that reach their own understandings. Many people working in environmental management are unaware of the contributions being made by artists in raising environmental concerns and working on solutions (de Groat, 1994). It is these understandings which we wish to shed light on, to enrich the delivery of education, extension, and community facilitation programs which aim to build community capacity and change environmental behaviours so that they are more sustainable.

Chapter 5: Review of overseas experience

This review of the overseas experience is based on interviews that were conducted and examples visited during the overseas field work, coupled with an examination of literature, and papers from recent international conferences that were attended while overseas. After successive approximations of the qualitative data and literature, three pathways emerged through which the arts could assist in promoting environmental sustainability (Figure 5.1). Within each of these pathways there were several sub-themes. These have been arranged in the sections which follow. In summary they are as follows:

- Communicating information
 - Education
 - Extension and adult education
- Connecting us with the natural environment
 - The natural environment inspiring art
 - Art in the natural environment
 - Large community events, rituals, and festivals
- Catalysing ecologically sustainable development

There is a great deal of overlap between these categories, and any single art event, art work or artist might operate in several of these categories. We have interspersed illustrative examples with interpretation. Most of these illustrative examples were encountered in field work.

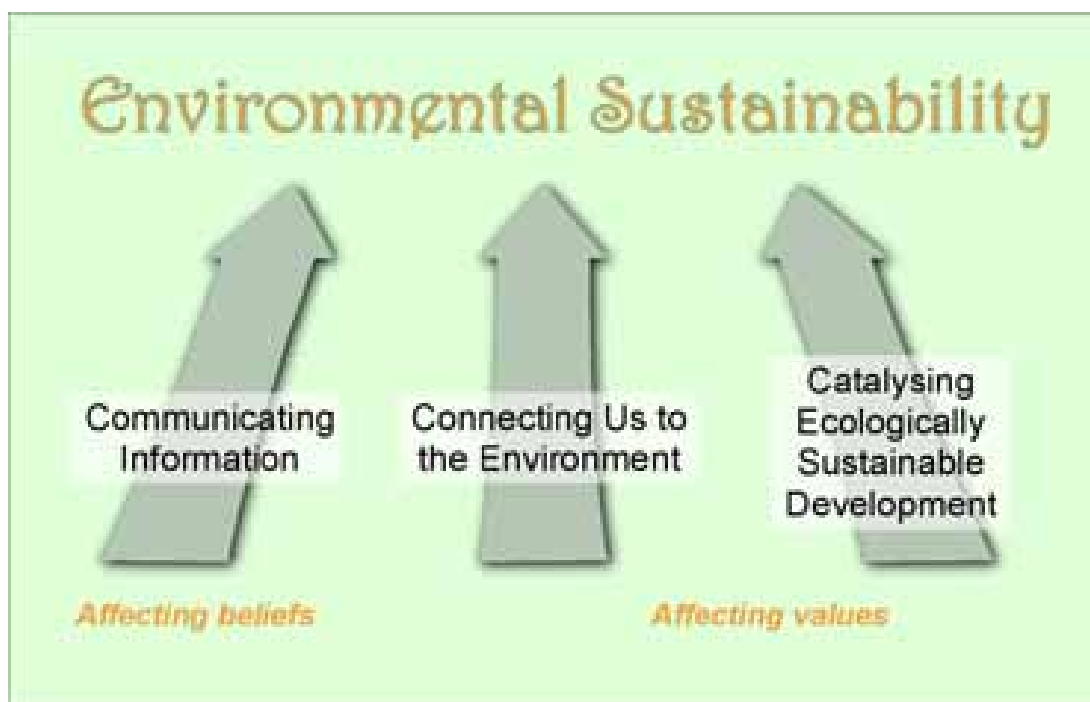


Figure 5.1: Three pathways to environmental sustainability via the arts.

The first pathway, aiding communication, may be manifested in the education or extension context, or where certain art forms are used to communicate a particular message (such as political cartoons, graphic arts, or documentary films). Similarly, the arts are particularly good at articulating a critical voice, to prompt new ways at looking at problems. The second pathway is to subtly connect us with the natural environment. Many artists are inspired by the natural environment, and their artworks or performances can evoke a strong sense of connection with the environment without being didactic. These art forms might achieve this connection by either being in the natural environment or by representing it. A third pathway is where the arts catalyse environmental sustainability by being

integrated with sustainability measures. In the rural context this might be where the arts are integrated with farm forestry, rural regeneration, and land rehabilitation initiatives, or where they are integrated into a community development or regional development role. In the urban context it might be where public and community art is integrated into urban planning designs which reduce greenhouse gas emissions through excellent public transport and facilities for walking and bicycling. We hypothesise that the first pathway operates mostly on affecting beliefs, while the second and third pathways operate more on affecting values. The following sections explore overseas examples of these different pathways, and makes comparisons with the literature and some Australian examples.

5.1 Communicating information

The visual and the performing arts have a special ability to synthesise complex ideas and to communicate them to a non-specialist audience in an engaging form. This makes them especially valuable in enhancing the teaching of scientific or environmental material, in a wide range of contexts. These special abilities of the arts make them an invaluable aid in communicating a particular message and have been used as such by many practitioners, both in Australia and overseas. Just as they are used by industry to promote consumption, the arts can be very powerful in communicating a message for environmental sustainability (Gold & Revill, 2004). The arts have a special value in improving learning in a variety of disciplines (Fiske, 1999), and visual presentation can provide a non-mediated and reliable method of learning and collecting information about the environment (Turkovic, 1996). The arts also have a special ability at articulating a dissenting or critical voice which prompts people to look at issues in a new ways, and the arts (or particular artists) are often at the forefront in challenging dominant paradigms and are often active participants in attempts to create improvements in environmental behaviour society (Branagan, 2003a; Cembalest, 1991; Cless, 1996a, 1996b; Goldberg, 1991; Mason, 1992).

In the following section, we separate communication through education (mainly of children through the school system), extension (where scientific information is extended to farmers and the general public), and adult education. In truth there is much overlap between these categories, and much of what is true in the education context is also in the extension/adult education context.

5.1.1 Education

The arts in child development

The public is generally unaware of the arts as a means to acquire information and tend to believe that you need to be born with the ability to be 'artistic'. However studies reviewed by Fiske (1999), have shown that involvement in the arts enable children to develop fundamental cognitive abilities and habits of mind, and engage and promote personal and social development. Cognitive capacities that are developed include spatial reasonings (ability to organise and sequence ideas, concepts and images), conditional reasonings (ability to theorise about outcomes and consequences), imagination and inventiveness, creative thinking, and symbolic interpretation and expression. They also encourage a disposition to learn through encouraging engagement, motivation, persistence and resilience. Personal and social skills and behavioural improvements can arise through the development of self-identity, collaborative learning and action, empathy, and social tolerance (Fiske, 1999).

Rates of improvement in literacy are more significant for children from economically disadvantaged circumstances, and those with reading difficulties in the middle grades when they participate in arts activities. The arts have these effects because they demand and reward active engagement in complex tasks that involve cognitive and kinaesthetic 'meaning-making' activities (which is different to sport or games which are not 'meaning-making'). There is total engagement of the whole human being (Deasy, 2004, 2002). Deasy and the studies that he cited showed that the multiple benefits of the arts have significance for all students, and have particular significance for those of lower socio-economic status. Sharma and Misra (2004) provided further evidence which supported Deasy's thesis.

One of the great attributes of the arts in education is the ability of the arts to engage the emotions in a positive way. Roslyn Arnold is a researcher and scholar in the fields of drama and theatre in education. Her theory of empathetic intelligence suggests that empathy encourages people to decentre and experience feelings beyond those immediately accessible. Empathetic intelligence is when people engage together and a dynamic or spark is created. (Arnold, 2004). She links consciousness and knowledge with conscience and suggests that the arts encourage empathetic learning. She supports her observations with those of Damasio who suggests that emotion and feeling underlie cognition.

Communicating information

As well as the process of the arts being valuable in child development, the arts themselves are valuable in transmitting scientific knowledge in innovative and memorable ways. In Australia this has been recognised by, for example, the Murray-Darling Commission (Andrew & Eastburn, 1997; Connell, 2002; Eastburn, 1999; Murray-Darling Basin Commission, 1993). Examples for this also abound overseas, from which we have selected a few examples.

Jenny Hughes of the University of Manchester (UK) evaluated 23 science and theatre projects (Hughes, 2004). She found that theatre could create excitement in children for science. One interesting project that she described was 'Stan's Café' which involved a performance-installation in a school hall. Grains of rice were used to represent people (each grain representing one person.) and as part of the 'performance' the students weighed the rice into piles, and in so doing visually represented relative populations and diseases, which made the statistics more real. Key statements from students included: 'it sank in', and 'you know it's true but you can't believe it until you actually see it'. Both science and drama education are reviewing what they should look like in the 21st century and this example showed that the two had much to offer each other. Hughes found that successful drama/science projects included spontaneity, participation of the audience, open texts that allowed different interpretations, controversy, cognitive dissonance, and scaffolding (giving a sense of structure).

An example of theatre being used to engage young people in the social and human impacts of developments in biomedical science was the *Young People's Performing Arts: The Wellcome Trust* in the UK (Parry, 2004; Wellcome Trust, 2005). This group did a site-specific performance at a hospital. The theatrical style was designed to make it hard to tell what was real and what was part of the performance. The work was interesting and subversive; no one was really sure whether it should have been happening. The effects of this kind of drama can be hard to quantify but the value of it was that staff and patients saw the hospital in new ways.

The International Drama/Theatre and Education Association (IDEA) was formed to promote and advocate drama/theatre as part of a full human education. Its world congresses examine the role that drama/theatre can play in establishing identity and in 'addressing the artistic and educational needs of young people in a world containing many forms of disenfranchisement and threat' (O'Farrell, 2001). A major theme of the 2004 conference was that theatre and drama practitioners can use their art for social change and social development. Practitioners tended not to be interested in 'art for arts sake', but rather in using theatre to promote social equity, justice, personal development and community development. The conference included practitioners, researchers, and teachers and educators, from around the world, including many from the third world. Presenters regularly distinguished their practice from elite and popular arts.

In the final panel of the 2004 IDEA conference Carmen Kelly of *Arts in Action*, a Theatre in Education Company from Trinidad/Tobago said that educational theatre programs are a democratic way of learning and that issue based theatre allows students to explore many issues. The way that the art form is carried out (the process of involvement) has been found by many practitioners and scholars to be profoundly important in affecting attitudes (as we also found in our case studies). For example Maureen Martineau of the *Theatre Parmineau*, Canada said theatre was becoming a mutant form – it is starting to be a 'genetically modified art' – she likened it to tourism, commerce and consumerism and genetically modified food, where 'inoculated genes made big fat vegetables because they have merchant value'. In opposition to this tendency her philosophy was to do low cost theatre with recycled and recovered

materials, and to use and re-use props, collectively own material, perform where the people were (rather than depend on them coming to the performance), and be democratic in the writing by including many social groups. Martineau said that there is now a lot of competition from the media and that ‘the imaginary world had been invaded by the media’. The audience member becomes a spectator – a consumer of spectacle. She therefore argued that theatre practitioners and educators needed to re-appropriate the power to dream and use theatre for awareness raising.

An example of a group that uses drama to teach scientific and ecological information is *Evergreen Theatre*, which performs mostly at schools, basing their material on the Canadian science curriculum. The company is made up of naturalists, teachers, actors, musicians and business professionals (Evergreen Theatre, 2002). It is based in Calgary, Canada, and performs across Canada, but sometimes further afield (e.g. USA and Australia). The Artistic Director, Tara Ryan was interviewed at the company’s headquarters in Calgary (July 2004), and in Australia (November 2002) when she was developing theatre pieces with primary and secondary schools on climate change (Figure 5.2). The group performs productions on the greenhouse effect, garbage and recycling, biodiversity, pond-life, ecology and photosynthesis, dinosaurs, the water cycle, grasslands, forest ecology, energy, electricity and comets. Their scripts are funny, their costumes playful (making much use of painted foam), and sets minimalist (usually consisting of an appliquéd cloth backdrop held up with PVC pipe, and transported in a bag).

The company uses two forms of theatre – productions with professional actors (‘demonstration theatre’), and residencies (‘pedagogical theatre’) which involves a series of workshops in which students devise their own theatre piece. The two forms have different functions. The demonstration theatre performances raise awareness, do some teaching and reach larger audiences (in an average year a single show could reach 75,000 people). The residency program have higher educational benefits for the students who participate in it, but involve a smaller number of students. A booked to capacity show would reach 450 students based on single class participation, although they were exploring an option for a week-long residency which would accommodate approximately 9,000 students. They also had an option whereby they worked with a school group for a day and helped them produce a play on a particular topic.

Evergreen Theatre has found that devising a theatre piece with students was an excellent way for those students to learn about an issue. Their residency show ‘Trees and Forests’ dealt with trees and animals of Alberta. This is a standard unit for grade six in Canadian schools. They compared test results of the students who participated in the devised theatre approach with students who were taught normally, and found that the students doing the theatre method got better results, as did poorer students. ‘Kids were humming the songs while they were doing the assessment tests’. It was a consistent finding that shy children came out of themselves. They particularly found that the arts could reach people who did not learn in a linear didactic fashion.

Ryan had found that there was a fundamental difference between ‘demonstration theatre’, and ‘pedagogical theatre’. In demonstration theatre the aim is interpretation, provocation and stimulation. In an hour-long show everything cannot be covered in detail. Watching a show does not operate at a deep cognitive level, whereas in pedagogical theatre, a ‘deep learning’, with a slow building up and layering, can take place. There is a difference between the responses of those *participating* in the art-making and that of the audience. If the intention was for an *audience* to learn from a piece, it had to be finely crafted by people who are more ‘expert’, something that took time and experience (although, as Madruga & Silveira (2003), younger children can be effectively taught and motivated by older children). Their finding that there are two different ways that the arts communicate (to an audience, and to participants) mirrors what we found in our case studies, and emerged as an important theme from many of the case studies observed.

The work of *Evergreen Theatre* bears some similarity to groups doing similar work in Australia, like *Vox Bandicoot* in Victoria. Key Informants interviewed in North America indicated that there were not many groups doing this form of theatre in the USA or Canada, as is the case Australia. The findings of practitioners like *Evergreen Theatre* support the findings of scholars such as Clover (1997, 2000), Hoot

& Foster (1993), Ramesh (1994), and Kerka (2002), who had also found that performances or visual arts forms are valuable in environmental education for both adults and children, as well as Australian studies such as Vanclay *et al.* (2004). The latter is evaluating several outreach activities being run by the National Museum of Australia, some of which use the arts. One of these is the use of the Hip Hop Performer ‘Morganics’ in song-writing and performance workshops, which ‘seek to engage Indigenous and non-Indigenous young people through music in a celebration of place, belonging and the environment’.

It should be noted that the use of the arts, and in particular theatre, has been used to transmit very different attitudes to science over time. Jackson (2004) of the University of Manchester, UK analysed plays that had scientific themes. He showed that theatre had been used to propagandise science, such as in the play *Flight* which carried a moral message to inspire young people about how science was moving us ‘onwards and upwards’. Alternatively theatre had been used to educate students about scientific information, such as in the play *Spirochete* which was designed to educate people about a blood disease. Finally theatre had been used to critique science, such as in the play *Uranium 235* by Ewen McColl, and $E=mc^2$ by Davies which dealt with the theme of nuclear power, and *The Life of Galileo* by Bertolt Brecht, about the clash of science with the church. In other words there were three fundamental ‘uses’ of the arts in education: propaganda, teaching, and critiquing; which is which depends on one’s point of view.



Figure 5.2: *Evergreen Theatre* working with students with a state High School in NSW performing a self-devised theatre piece on the Greenhouse Effect and Climate Change, at Solar Harvest Conference in Newcastle, 2002.

5.1.2 Extension and adult education

The communication role of the visual and performing arts can be of use in extension (that is extending scientific information to farmers), and in adult education. Whilst there appears to be little thought given to the use of the arts in extension (e.g. Black, 2000), there is somewhat more known about it in the adult education literature. In their review of education programs for the Murray Darling Basin Commission, Prior *et al.* (2000) concluded that arts programs delivered through artistic media had enormous potential within the Commission's education program.

Our review indicated that there were several ways that the arts can be included in extension activities:

- to help in the transmitting of information;
- to assist in landscape perception and articulating landscape scenarios;
- to assist research; and
- to enrich the facilitation process.

The following section provides examples from overseas where the arts have been used to communicate information about the environment to adults. It emerged from the interviews that few are using the arts in the extension context (rather like Australia), and so many of the examples come from different contexts, but are nevertheless relevant.

Helping to transmit information

Environmental education forms an important component of adult education (Hill & Clover, 2003), and the arts, and particularly the community arts, have been used successfully to highlight issues and empower participants (Clover, 2000, 2001; Kerka, 2002). The language of theatre is readily transferable to adult education and professional training (Drennan, 2004). The use of the arts in adult education for adults, can enrich people's lives by stimulating imagination, clarifying emotions and analysing the context and influences of past experiences and how they have shaped values, attitudes and behaviours ...' (Clover, 1997). Respondents to her evaluations suggested that the arts (in her case storytelling coupled with drawing pictures) provided 'a picture that is more permanent and easier to remember, a stronger re-enforcer of our need for nature and was valuable because it gives an example of how much more is involved in what we say and do than we may realize'. The visual and performing arts had been incorporated successfully into capacity building projects for natural resources management in Canada (Lovett, 2004, in press).

We present several examples from the performing arts from overseas which we had direct experience with through interviews or attending performances, and an example from the visual arts where these characteristics are also evident.

The use of theatre is a commonly used tool to transmit information in the third world. For example Patnaik Subodh runs a theatre group called *Natya Chetana* (meaning Theatre and Awareness), a theatre and resource centre that works with social commitment in the state of Orissa, India (Natya Chetana, 2000, nd.; Patnaik, 2003, 2004). It began in 1986, and does the following:

- the rural based bicycle 'Cyco-Theatre' in which the group travels by bicycle to villages in a very poor isolated area;
- urban based 'intimate theatre';
- theatre workshops; communication management training;
- a peoples' theatre festival; seminars;
- conferences; a publication house;
- special activities for women and children;
- participates in social action networks and building up a theatre village.

When the group started they were considered novel, but now governments and non-government organisations often use street theatre for propaganda purposes to fulfil their own agendas. Subodh differentiated between his theatre and propaganda. He considered that he used theatre as a tool (like a printing press) not as an art form. He allowed people's voices to be heard and to raise 'awareness', while propaganda theatre mined indigenous culture to run their own agenda and propagandise. He saw the difference as 'propaganda' starting with a pre-conceived notion to be propagated, whereas 'awareness' was deeper and came out of research with, and involvement of, the community. He wanted his theatre to make people act and did not seek applause. By posing a question through theatre one can point to the future but allow ambiguity. This way of using theatre was also stressed by Somers (2004) (see below).

Practitioners like Subodh avoid their theatre becoming 'propaganda' by involving the community throughout the process of script development and performance. Many of the practitioners at the IDEA conference referred to this mode of practice, based on the theatrician Boal who developed theatre pieces with the audience in a method known as 'Theatre of the Oppressed' (Boal, 1982 [1979]). Process drama is full of ambiguities; it is unpredictable and divergent and does not have fixed answers. It opposes the usual simplicity and 'awakens people for imagined new worlds' by making a fictional world to make sense of the real world which is often threatening. In the real world you might be powerless, but in a drama you can become the actor: 'drama gives you the bus ticket to join with others on a journey – to act on the world'. (O'Connor, 2004).

Platform Theatre is an arts group that does socially active theatre around London (Platform, 2004). It provides an interesting example of a theatre group whose performance practice converges on a group-facilitated education exercise. Formed in 1983, the group combines the talents of artists, social scientists, activists and environmentalists to work across disciplines on issues of social and environmental justice and principles of democracy. They mainly work in London and the Thames Valley but their 'methodologies and strategies travel far beyond Britain's capital'. Their projects have been recognised for their innovation and imagination both in Britain and internationally, and they have been invited to make presentations in Germany, Yugoslavia, Canada, Bulgaria, Ireland and the USA. Issues that they have dealt with have included renewable energy and the oil industry. They do interdisciplinary art and installations, and often perform for small invited audiences to achieve a quality educational experience rather than mass appeal.

The *Unravelling the Carbon Web* production is a theatricalised guided walking-tour near the buildings of oil companies and provides a useful example of how theatre might be used in the extension context. In an interview, Greg Muttitt (co-director and researcher), described the walking tours as 'presentations with a performance element'. They used traditional stories and made connections to contemporary 'giants' like Shell and BP which occupy so much 'mental and geographic' space in London. They tell stories regarding the two geographies – where oil is produced (e.g. Iraq and Caspian Sea) and in London – taking the audience around London, emphasising the 'place-ness' of the industry, e.g. what a particular person in a particular building is doing at a particular moment, while making the audience realise what was simultaneously occurring in the place where the oil was originating. They cover some distance between venues so they create a space for the audience to reflect between the sites by giving them headphones and play music of the place where the oil is produced. This provides a cognitive dissonance as the audience walks through London surrounded by glass and steel buildings. They do not have costumes in the walking tour – the theatre space is the actual locations (although in other shows they use sets, visual elements and lighting). The tour looks like a normal tour, although slightly more animated, exciting, and emotional. A strong element is the personal and intimate stories that are told. Their performances are extensively researched using various journals and information from people who work in the institutions (who are also a target audience).

Because their performance looks like a guided tour, people find it hard to categorise them – it is not protest and it is not theatre. Muttitt felt that the changes that occurred in people who experience their work were intangible and unmeasurable. In reacting to their work, people say 'this has changed my life or what I think about these issues'. They get feed-back from participants from their projects through discussion forums and talking one-on-one (there is a big discussion element in their performances).

They don't publish the feedback, but use it to develop shows and to develop the relationship with participants by sharing the notes from discussions with the participants. Other artists who see their work can get a new perspective or be motivated to do different work, so *Platform's* work inspires other artists, providing a chain of communication.



Figure 5.3: *Forbrenning (Combustion)* by Rolf Groven, 1997, 170 x 22cm, (see below). Image Rolf Groven

Underground Railway Theatre (URT) is a theatre company based in Boston, Massachusetts and Burlington, Vermont, USA (Underground Railway Theater, 2004). The company was founded in 1978 and named after the 'underground railroad' which assisted black slaves to escape. The group is characterised by its use of a great variety of theatrical forms, and combines puppetry, music, acting, and masks. They perform in fine arts centres, symphony halls, museums, libraries, schools and community centres. They tour throughout the USA and internationally and have received several citations of excellence. The company is dedicated to creating and presenting new work and embrace a range of theatrical forms such as plays and cabarets for adult audiences, plays for families and young audiences, and huge puppet spectacles with symphony orchestras. Their symphony work theatricalises known symphonic works using puppets and masks (e.g. *The Firebird* by Stravinsky) or new works such as an orchestral version of *The Tempest* by Shakespeare. They work with the Boston Symphony Orchestra and other orchestras.

Among their repertoire is a series of eco-cabarets which highlighted particular environmental topics. Founding member, director, actor and writer for the group, Wes Sanders, was interviewed about this aspect of the work of the group. Their first eco-cabaret (in 1992) was called *The Christopher Columbus Follies: the Eco-cabaret*, and was about the European legacy and the impact that it had on the treatment of nature and the native Americans in the USA. The second eco-cabaret (in 1994) was called *InTOXICating* and was about environmental justice, and other topics surrounding it (Sanders, 1996).

In 2004 Sanders co-wrote a musical comedy entitled *Beat the Heat* as an outgrowth of the campaign called 'The 10% Challenge' in Vermont designed to reduce CO₂ emissions according to the Kyoto protocol (Cevoli & Sanders, 2003). The aim of the cabaret was to get people to physically sign up to the

campaign and to make a personal commitment to reducing their greenhouse gas emissions by making changes in their personal behaviour such as using low-energy light bulbs and appliances or travelling by bicycle. The group had found that the form of musical comedy (which includes dancers, comedy and songs) was widely accepted in the USA, and provided a highly accessible means to educate audiences about issues like greenhouse, and gets to people who might not normally come to something that was more 'arty'.

Like Ryan of *Evergreen Theatre*, Sanders had found that theatre groups doing environmental theatre were fairly rare and that there was a 'kind of antipathy' among theatre people to some degree towards environmental themes:

...they tend to be very urban people – they tend to be very people-orientated not nature-orientated – so they don't tend to think ecologically.... "how can you make a play about a tree?"

Sanders had been doing eco-cabarets since 1991, although he had been doing cabaret style theatre in 1980 on the anti-nuclear theme. He had found that when dealing with 'dreadful subjects' such as the nuclear issue 'the funnier it is and the more music you use, the more likely that people are going to first of all want to come and see your shows, and secondly want to deal with it'.

The difficulty of measuring the impact of using the arts to communicate particular themes or of changing opinions or behaviour has been highlighted by many practitioners throughout this project. Not only can it be difficult to theatricalise science and the environment in an interesting way, but artists find it difficult to define any changes that might have occurred because of their art. To determine any changes it is necessary to ask audiences for their response, and this is not necessarily an easy task, as we found in our case studies. In the case of *Beat the Heat* there was a measurable increase in the number of people signing up to the campaign, but there were many parts to the campaign, so pulling out one particular part of it and highlighting its particular contribution is difficult. However various artists, were able to point to particular examples where their art had influences very directly, and in Sanders' case this was through another of their productions called *Sanctuary – the Spirit of Harriet Tubman*. This play was done in support of the sanctuary movement in the USA when refugees were fleeing El Salvador and Guatemala and various religious communities and groups banded together to assist them to seek sanctuary in churches. He was able to cite examples where churches declared sanctuary directly as a result of seeing their play, but said it was rare to get immediate feedback like this about the effect of their performances. Another way that artists can cite a direct change is when a particular individual says to them that they were particularly influenced by their work:

My favourite story about that is one time, we used to use volunteers a lot, and one time I was cleaning ... on *The Tempest* next to this young woman ... so I asked her "How did you get into painting?" and she said ... "Oh I saw your *Firebird* when I was six years old"... I had to sit down, I was so moved – you just don't hear stories like that very often, but of course you have no idea about how many people are like that ... That's the way art is ... (Interview Wes Sanders, July 2005).

Bread and Puppet Theatre is a performance group based in Vermont, USA, in the isolated hamlet of Glover (Bell & Simon, 1997; Brecht, 1988; Simon & Estrin, 2004). Their work includes plays, large pageants, and a publishing house which produces posters, plays and books. The company was visited, performances attended and members of the company spoken to as part of the overseas study tour. Their practice covers works that are socially critical and others forms which fit into the category of connecting audiences with the natural environment through large outdoor pageants (Section 5.3).

The group was founded in 1963 by choreographer and puppeteer Peter Schumann who has been 'sculpting and painting the masks and puppets, creating the stories and directing the shows of this multi-faceted enterprise' ever since, and whose singular artistic vision is 'all pervasive and inescapable' (Schumann *et al.*, 2002 [1989]). There have been three strong influences in Schumann's art – the company's street theatre performances in New York in the 1960s, their participation in the peace rallies and protest marches against social injustices and the Vietnam War, and Schumann's background growing up in Germany and the influences of folklore and folk art, medieval art and the art of the

Dadaists and German Expressionists. The company's work is characterised by the use of puppets, from hand held to over six metres high, and use of masks. A collection of masks and puppets is housed in a museum at their work place (Figure 5.4). The masks and puppets were made from papier-mache (newspaper and cornflower glue) over clay moulds (Martens, 2000; Peattie, 2003). Many masks were made from each mould and there is the capacity to change them each time or to make identical masks. Schumann's choreography typically features massed figures clad in similar masks.



Figure 5.4: *Bread and Puppet* Museum with some of the many hundreds of puppets and masks on display.

A somewhat unique part of their practice is to serve sour dough bread to the audience after their performances, whether the audience is 100 or 30,000 in size. The bread is baked by Schumann, and comes from his philosophy that theatre should be considered as basic as eating bread (Schumann *et al.*, 2002 [1989]).

Performances of the company have taken many forms, drawing on traditional folkloric traditions, political protest theatre and religious traditions. Some shows have been performed for many years and many of their characters are recycled. The *First World Insurrection Circus* was performed outside in a large natural amphitheatre surrounded by woodland, half of which was given over to the performance. An old decorated school bus was used as a backdrop, in front of which was a 13 piece (mostly brass) band (Figure 5.5). The audience sat on a grassy slope. The circus consisted of a series of humorous sketches drawing on the traditions of street theatre and political satire, which explored issues such as the decline of country stores in the face of the expansion of Wal Marts and urban congestion due to a dependence on cars. Their props were made very cheaply with available materials, and would be readily adaptable to extension theatre.



Figure 5.5: *The First World Insurrection Circus* by Bread and Puppet Theatre, Glover, Vermont, July 2004

The foregoing are examples of theatre groups in the US and the UK who have focused on various environmental issues. Reviews of groups that focus on these issues have also been done by Rosenberg (1992), Cless (1996), and Kirn (2004). Diverse art forms have also been used in Mexico to address or redress community issues like pesticide poisoning, toxic waste, and water depletion and pollution (Platt, 1999). Some groups adopt a critical stance, others adopt an educative stance, while others adopt a community development role. These examples show that the performing arts can be helpful in generating discussion and debate or to prompt a community or to confront an issue, and to prompt people to look at issues in a new ways.

More traditional forms of theatre can also provide instruction to contemporary audiences about environmental themes, whether this is through the interpretation of classical plays or through new plays. Downing Cless is an American scholar based in Boston Massachusetts, and has a special interest in this topic, having published several articles on the topic (Cless, 1996a, 1996b, 2003). He was interviewed as part of the overseas study trip. He had found ecological interpretations in classical plays such as *The Birds* by Aristophanes, *Midsummer Night's Dream* by Shakespeare, and *Doctor Faustus* by Marlowe, although there has been little examination of theatre about the environment among theatre studies or literary scholars. In his analysis of *Faustus* he suggested that the play, although written 300 years before the word 'ecology' was coined, contains the seeds of ecological ideas, inherent in the dawn of pre-modern science, industry, and life style in western society (Cless, 2003). Marlowe critically viewed overzealous human control of nature, and 'radically debunked the likes of St. Augustine, Leonardo da Vinci, and Machiavelli who preached the ever-positive value of construction, invention, and cunning'. The play provided 'ominous forewarnings of the consequences of over-extending and over-consuming' and the importance of balance and interdependence and was a 'clarion call to "Live simply that others may simply live"'. The 1992 Pulitzer Prize-winning play *The Kentucky Cycle* by Robert Schenkkan is a contemporary example of a play that integrates the environment with other themes. On the surface it is a drama of revenge and betrayal dominated by appropriate images from the Bible. On a grander scale it is an epic of environmental, economic, and human exploitation, and reflects US history and 'points the way towards understanding and perhaps even, healing the enormous rift between ecology and economy in America' (Cless, 1996b).

Cless had concluded that one valid role of theatre was to reinforce/re-empower those who already had an interest in the environment, as well as having a role in provoking those who had not yet engaged with the issues. Performance based art-forms can also validate concerns or stimulate concerns, such as the film *The Day After Tomorrow* which popularised climate change brought about by the enhanced greenhouse effect. Theatre that takes place in the environment is important for sensitising people towards the natural environment or educating them. In this context he described a company called *Theatre in the Wild* based at Seattle USA:

There was an area of land being restored ... they had a theatre piece out on that piece of land and the theatre piece led people around what was going on *in* the land. It had all these mythical figures appearing as part of the landscape, and yet they also had actual live animals, so suddenly there'd be a snake cross the path as the audience was walking along, and of course there'd be birds etcetera, so all of that becomes part of the theatre experience. (Downing Cless, interview 13 July 2004)

This compared with some experiential performances at field days such as one conducted by Greening Australia at Tamworth (Section 6.2). At one, the property owner, and ecologist, Phil Spark hid various lizards and snakes in particular habitats and as the field day audience toured his property he would pull out the animals and describe their habitat requirements. The interesting cultural example of the snake men, who tour shows and events in Australia, and who bring the natural environment to people quite directly by showing people snakes in a very theatrical way. Although they would probably not consider what they do as 'theatre' their shows combine many performance elements which borders on some of the rural 'extension theatre' carried out by Greening Australia during the 1990s in the Northwest of NSW (Chapter 6). Cless felt that other forms of outdoor theatre such as agricultural shows and historical re-enactments display some potential of being utilised by those who wish to educate the public about the natural environment.

As with the performing arts, the visual arts can be helpful in generating discussion and debate about environmental problems or to prompt people to look at issues in a new ways The power of the visual image in synthesising complex scientific information into a simple image that is easily remembered is exemplified by the work of the artist Rolf Groven who is based in Oslo, Norway, and was interviewed as part of the overseas field work. His paintings deal with different political and social issues affecting Norway. Many deal with environmental issues, such as oil, energy, conservation and destruction of the natural landscape (Figures 2.1, 5.3, 5.6). Whilst some of his works might be described as didactic, and have been used to assist particular campaigns, others consist of traditional landscapes painted in a richly classical style which would place him in the section on how the arts can connect people to the natural environment (Section 5.2). This cross-over between categories is evident in the work of many artists.

Groven frequently takes famous classical Norwegian pictures and makes slight modifications, such as Figure 5.6, in which the original wedding party on a boat in the fjord has been replaced by a sinking boat and chemical drums and pollution. To ensure that his art has an immediate impact he chooses iconic Norwegian images that are instantly recognisable. Some of his works are reminiscent of political cartoons, although they are fully realised oil paintings. He believed in making his art highly accessible and did multiple copies of his pictures and had them distributed widely (Groven, 2005).



Figure 5.6: *Oljemaleri (fritt etter Tidemand og Gude)* [A Fantasy After Tidemand and Gude] by Rolf Groven, 1975, 180 x 180 cm. Image: Rolf Groven

Assisting in landscape perception and articulating landscape scenarios

The visual and performing arts are valuable in assisting in perception of landscape and in articulating different landscape scenarios. Australian examples where this is evident is the different landscape scenarios for different types of agricultural land in Victoria by Rob Youl (Campbell *et al.*, 1988). and the use of paintings by Annie Franklin by Land and Water Australia (Williams, 2001), as well as our Gunnedah case study (section 6.6). White (1992) describes the use of art to read landscapes, something that is being increasingly valued by policy-makers (Hamblin, 2000). Reading landscapes, and creatively engaging with them, is also described by Sinatra & Murphy (1999). Smyth (1984) retraces the steps of the colonial landscape artist Eugene von Guerard and repaints the same landscapes. Because von Guerard's paintings are recognised as being accurate representations of Australian landscapes in the mid to late 1800s, Smyth's paintings provide a perspective of the changes that have occurred since and are a useful extension aid. As Bouilly says: 'When I think about the Australian landscape there is a picture in my mind and a song in my heart – the vision and its song represents my river country – it is a landscape in which people are a central and integral element ...' (Bouilly, 2001).

The photographic renderings of different scenarios of agricultural landscapes by (Krettinger *et al.*, 2001) are an example from Germany which achieves a similar result as Youl. Al-Kodmany (1999) describes how combining artistic and GIS realisations of landscape scenarios assisted in urban planning (Al-Kodmany, 1999), and Drysdale (1994) describes how aesthetic perceptions can play a significant role in the definition and perception of environmental degradation. The discipline of Interpretation uses the arts quite frequently to interpret science and ecology in museums and national parks (e.g. Hughes, c. 1998). The work of individual artists can also reveal landscapes that we don't see or are unaware of. A series of American landscape photographs by artist David T. Hanson of toxic dumps, mines, military establishments highlight the impact that modern society has on the landscape. Because these landscapes will exist far beyond our era like the pyramids they reflect the preoccupations, and priorities of our age (Gablik 1993, pp. 77-81).

To assist research

The dialogue between art and science has powerfully shaped both endeavours since antiquity, and this has been reviewed by Strosberg (2001). The intersections are many, and include the extensive use of artists in botanical and zoological taxonomy, anatomy and exploration, the mergence of science and art in architecture, graphic design and decoration, the evolution of the arts with the science of materials and technology, the use of art in psychiatry to analyse cognition, the use of scientific subjects by artists, and the sharing of analytic tools and philosophical approaches. The Mildura Palimpsest seeks to bring scientists and contemporary fine artists together to explore issues of regional environmental and social sustainability (Mildura Arts Centre, 2001; Naylor & Callipari-Marcuzzi, 2003), as is Brisbane's Riverfestival (Riversymposium, 2001). The Synapse data base provides an online resource promoting the nexus of art and science (Synapse, 2005).

Some scientists use the arts in a practical way to assist in their research, or to gain insights which feed into their research. Nalini Nadkarna is a scientist who studies forest canopy biota and establishes connections with non-usual segments of society for the purposes of heightening awareness of canopy organisms. Her activities include bringing artists into the canopy to document and communicate the aesthetic values of cloud forest trees, working with musicians to carry out 'data sonification' of canopy datasets to portray them in auditory instead of traditional visual forms, and inspiring a positive awareness of canopy biota via marketable outlets such as canopy rap songs (Nadkarni, 2002). Some scientists also manage to merge an interest in aesthetics and science (Sullivan & McCrary, 2002).

Enriching the facilitation process

An important aspect of extension is the facilitation process, and the arts have much to offer this. They can enable improved levels of bonding between members of the group, summarise and present information in an engaging fashion, or can consolidate information in participants.

Rosales and Zarco (2004) researched capacity-building of local partnership members and leaders in their own Mayan communities in Mexico. They examined an education/training process that took place since 1995 in four different regions on the Yucatan Peninsula which was carried out by non-government organizations and academic institutions. Forty development agents from organised groups of 15 Mayan communities were trained in eight workshop how to do natural resource appraisals.

The students integrated the visual and performing arts in their training in a striking way. The training workshops usually included songs and music, and drama games. The students converted the material they learnt into songs and plays which they then performed back as part of their presentations. They covered butchers paper with beautiful illustrations, including garden plot designs and plans. They also did poster making in pictures rich in colour, and included traditional handcrafts, story telling, and other cultural Mayan forms, and even drew over the walls! The region had a traditional festival which was a wonderful spectacle with many art forms employed, and it was clear that this tradition came through strongly in their art in the workshops.

The researchers found that using the performing and visual arts as part of the training was empowering for the participants. They learnt how to speak in front of an audience which was a useful skill as the students were returning to their communities and needed to be able to speak to groups of people. The tools encouraged team work, participation, and the sharing of experiences.

An often unappreciated aspects of individual art workers is their role as community facilitators themselves, a characteristic that is seldom appreciated by those in extension or community facilitation roles. Sue Gibson of Edith Cowan University examined arts workers, artists, community arts and adult education in the arts, as to how they are related to the concept of lifelong learning. Among the emergent trends she found that artists (such as music teachers) frequently acted as solo community 'facilitators' and that artists often acted as 'alchemists' at a point of intersection between science and art (Gibson, 2004).

Whereas an individual artist might act as unofficial community facilitator, community artists incorporate community facilitation into their arts practice in a purposeful way (Hawkins, 1993). In some cases they use the process of community arts to effect changes in attitudes and behaviours towards the natural environment. One example is Rosi Lister who runs a consultancy called *Druid Arts* in Yorkshire England which facilitates community arts projects. She is also researching the environmental arts and their potential for facilitating social change for a Masters in Philosophy research degree and was interviewed as part of the study tour. She helps groups put together events and bring in artists. She described her work as ‘environmental interpretation’ where she was ‘working with communities designing trails and nature trails and working with them exploring the social heritage as well as natural heritage’ (Figures 5.7, 5.8; Lister, 2001, 2003, 2005).

Lister described one project that she was involved with, which was a volunteer project with one paid coordinator: The project bore similarities to the event *Nova-anglica: The web of our endeavours* (Chapter 6.5). A three day event was held which involved artists, scientists, landscape designers, ecologists and other experts as well as members of the community. They spent the time talking working and exploring the polluted site that was to be rehabilitated, and several artists were employed by the community to create art works (Lister, 2001).

Lister emphasised the importance of community-art/environment events being done over and over again. In her experience doing them as one-offs gave them limited value. It might raise awareness but to really inculcate values they had to become part of the social culture:

... because it is about changing social norms ... A lot of [these ideas are] not going to impact on you and [me] sitting here now. We’re being custodians for the future 20 years hence, 50 years hence, a 100 million years hence. That’s too much for most people to even want to worry about. So where do you start? I think ritual has a great potential. We don’t go to church any more, we don’t think anything spiritual, we only think about ourselves ... So it’s reversing it – big reversal in how we behave as a human race, within our environment, which the enlightenment taught us that we were here and the environment was down here. We’ve got to now put that back, to almost our pagan origins, or our native origins, like the Aborigines, absolute empathy of being *within* the landscape – being part of it ... It’s relearning ritual, this idea of being involved in doing something small, you do it every year, it gets bigger, it gains momentum, it becomes important for many different reasons, even if it is social reasons, but at least through that socialisation people are actually talking about things that they wouldn’t talk about at other kinds of social events, because of the nature of what it is you are doing.

She highlighted the difference of approach of some fine-arts trained artists, and her role as a community, artist, and this view appears common amongst community artists (Hawkins, 1993):

... people come at it in different ways ... in fact you come across it a lot with fine-arts trained people that they seem only concerned with this issue of ... what they consider is artistic quality ... They want to be an expert creating the artwork, but to me the artwork is not important, – the end result isn’t important, it is the process, and if the artwork is your motivation then fine, you go out and hire an artist and do whatever. But if your motivation is to change people’s views or develop a community – it’s completely different.

Lister was connecting her examination of case studies that sought to engage communities with environmental changes through the arts with the sociological theory of symbolic interactionism (Blumer, 1969). Her researches had led her to the conclusion that the arts were a way of constructing symbolism and symbolising communicative processes.



Figure 5.7: A community project which *Druid Arts* was involved in, in the UK. Photo Rosi Lister

To make something with somebody else, you're observing, you're communicating, ideas are forming. As they form and you're communicating, things are growing and that all becomes a very rich social process, and the more that those social processes are being constructed and made through creativity, the more they become tangible. The observation comes in because if you're working within any form of the arts, you're looking, you're listening for things that would not normally be within your everyday thoughts. So by bringing people into those projects you are providing this *space* for them to interact within a *scene* ... for want of a better term. And I believe that that is at the root. [This is a reference to the work of Bruno Latour - people are actors within staged settings, performing their tasks, communicating as dictated by the setting. For example a shop is one particular stage, which is very different to an office, and people will communicate differently according to the setting].

It was important in her practice that she was building projects that became sustainable in the communities that they are intended to serve, and that she was giving skills to the community so that they could organise things in the future, and her role slipped into the background:

I actually teach communities how to commission their own [art-works], so they are empowered and it becomes their project and you step back and back and back into the shadows as the project gains momentum, but it is still this one-off approach.

Her interest was in 'showing people how they can live differently' and was placing her work within empowerment theory, where the community artist acts as facilitator, initiator, leader, supporter, and ultimately empowers the community to continue in the future. In her view this approach was important because there was a tendency to 'fly in' an arts project when something looked bad, but there was often little follow up to keep the project going into the future:

You can have a lovely little project – make some sculptures, float them down the stream – everyone knows about it then – but what's the next stage, and how does that stream then become clean through that creative process?



Figure 5.8: A community project which *Druid Arts* was involved in, UK. Photo: Rosi Lister.

These examples in education, extension and adult education, show that where the arts are linked with scientific or environmental knowledge they are a powerful means of transmitting information. The process of involvement in art-making is motivating, and assists in cognitive development. They also have much to offer in the group facilitation process.

5.2 Connecting us with the natural environment

The previous section described many ways that the arts can aid communication. Some of these methods can be somewhat didactic (i.e. they contain a political or moral message, or tend to give instruction or advice, even when it is not welcome or not needed). However the aesthetic, imaginative, visual language of the arts can also work towards social change. The arts, and particular artists, often engage their audience in a non-didactic way and connect their audience to the natural environment through thoughtful or evocative representations of the environment or by actually being in the natural environment itself. Australian examples include Mary Martin (Martin, 2002; Martin *et al.*, 2001; Martin & Griffiths, 1999), John Wolseley (Wolseley, 1984, 1994, 2001), William Robinson (Fink, 2001), Fiona Hall (Radok, 2001), Dorothy Napangardi (Napangardi, 2003), Lin Onus (Neale, 2000), Richard Woldendorp (Woldendorp & Winton, 1999), Leo Meier (Meier & Figgis, 1985), Osborne, 2002, Tunny, 2000 and many others, as well as Indigenous art which demonstrates an enduring cultural link with country (Baxter & Gallasch, 2000). Similarly the celebratory aspects of the performing arts can make them useful in affirming ecological restoration and environmental repair activities in a non-didactic way, e.g. Cameron (1993) and Fox (2002). Modern urban life has disconnected most people from the natural environment and the arts are a way or re-establishing this link:

Paths into “nature” have been well trodden in Britain by artists from Turner to Richard Long. Art has long imitated nature and represented it as an ideal, or an escape from life’s vicissitudes ... the “natural” environment has been perceived as both mirror and contrast to the human domain.’ (David Kemp in Grant & Harris, 1996).

5.2.1 The natural environment inspiring art

The natural environment has inspired much great art, which in turn can inspire a love of nature. This has been particularly manifested through the tradition of landscape painting (Schama, 1995) and landscape photography (Goldberg, 1991). From the nature writing of Henry David Thoreau, (Thoreau, 1960) which triggered a whole genre of nature writing, to the inspiring photographs of the American wilderness by Ansel Adams (Goldberg, 1991), or the nature-inspired music of Beethoven (Sandved, 1954), or contemporary 'Biomusic' (Choong, 2002), art can inspire, elevate the emotions, provide insights, and provide a spiritual connection with the natural environment. In Australia it has been manifested by landscape painters, from the nineteenth century (Radford, 2001; Smith, 1962) to the present day Wilderness calendars with the photographs of Dombrowski hanging in any number of offices throughout the country. A listing of some visual artists, with examples of their work, is provided by Blankman *et al.* (2004), and performing artists by the Ashden Directory (Anon, 2004).

In his investigation into the present relationship between environmentalism and the visual arts in Britain, Peat, (2004) concluded that environmental concerns and artistic activity are closely tied to local community response and national movements. He found that artists could play a important role in catalysing a change in value and meaning in society. In his review of art and the environment in North America and the UK, Tim Collins describes this form of engagement by artists as 'Lyrical Expression' to distinguish it from the other means ('Critical Engagement' and 'Transformative Action'), and argues that it is the most common and lasting form of 'social art' (Collins, 2004).

5.2.2 Art in the natural environment

As well as representing or evoking nature in artworks, there is an evolving arts practice where the artworks or performances are situated in the natural environment. By witnessing the art works, people are put into contact with the natural environment and develop an affinity for it or learn things about it, as part of the experience. In her review of American and European practitioners Gablik (1993) highlights many artists engaged in these kind of practices, in different ways, including the creating of new rituals in the environment, performances, concerts or the creation of art works in natural settings environment. We present here some examples encountered as part of the overseas study trip.

Visual art in the environment

An example of an artist who works in the natural environment, creating quite extraordinary artworks is Andy Goldsworthy, an English artist who uses natural materials to produce (often ephemeral) sculptures which are positioned in the landscape and which he captures in photographs. His materials include leaves, thorns, ice, berries, stones or wood (Figure 5.9; Goldsworthy, 1991, 1994, 1996). In most cases the books of photographs are the enduring art work, rather than the actual sculpture. Seasonal changes, the weather and the process of growth and decay are an integral part of his work as he responds to the cycles of nature. His interventions in nature 'heighten our awareness of the beauty of nature, as well as of its enduring and also ephemeral qualities' (Kastner & Wallis, 2001). The effect of work by artists like Goldsworthy is to 'reconfigure our intellectual, emotional, physical and spiritual orientation in the world' (Gablik 1993, p. 93).



Figure 5.9: *Stone Houses* (2004) – Sculptures on the roof of the Metropolitan Museum of Art, New York by Andy Goldsworthy, July 2004.

Having art in the art in the environment can increase the numbers of people having a direct experience of the natural environment, and can affirm environmental values. An excellent example where these aspects are evident is the Grizedale Forest in the southern Lake District of England. It is a working forest which has incorporated theatre and sculptures (Figure 5.10; Grant & Harris, 1991, 1996). The initiative was started by forester, Bill Grant, who began incorporating the arts as part of the educational program for the forest and it gradually escalated. The primary aim of the forest is to produce timber, within a philosophy of multiple-use forestry. They began by establishing a small theatre (*The Theatre in the Forest*) in a disused building in the early 1970s. In 1977 they commenced the sculpture project which involved making the forest available for sculptors to work as artists-in-residence; the residencies lasting for up to six months. The sculptors built sculptures *in-situ* in the forest from the natural materials found in the forest (mostly stone and timber). Many young sculptors at the beginning of their careers became established at Grizedale, such as Andy Goldsworthy, David Kemp, Richard Harris and Andy Frost. Artists from all around the world have been attracted to work at Grizedale and there are now over 90 sculptures scattered around the 3 700 hectare forest that are reached by an interconnected network of 120 kilometres of forest pathways.

The sculptures embrace a range of styles and sizes – comic, architectural, large, and small. Most are designed to be ephemeral and decay slowly over time, and are gradually replaced. They are subject to the same natural cycles of the change that rule the rest of the forest. The artists live and work in the small rural community. Grizedale celebrates an individual artist's response to a particular landscape – a production forest (Grant & Harris, 1991). The art-works add considerably to the attraction of the forest, and effectively function as a means of encouraging people into the natural environment and to gain an appreciation of it, with some 350,000 visitors to the forest annually (Grant & Harris, 1996). The experience at Grizedale has also influenced a generation of sculptors and art administrators. Some also see art like this as providing a spiritual connection in nature and through it a respect for the natural environment:



The increase in sculpture in the open has coincided with the evolution of “green” movements throughout the world and ... with a respect for nature ... which in its reverence comes close to a religion. This renewed respect for the natural world, with which the overwhelming majority are in full sympathy, is about the closest we come in contemporary life to having a collective sense of belief in something important ... it could be argued that the worship of nature has replaced Christianity as the principal bond binding people together in the late 20th century. In many ways Grizedale is the cathedral of this new religion.’ (David Lee in Grant & Harris, 1996)

Figure 5.10: *Stag Herd Roof* by Andy Frost, 1993 – Sculpture in the Grizedale Forest, in northern UK

Performances in the natural environment

Traditionally theatre was performed outside, for example the Greeks and Romans performed in large outdoor amphitheatres. In his interview, Downing Cless observed that there was now a divide between theatricians and the environment, largely because theatre is now an urban phenomenon, and became so once theatre became commercial and started being performed indoors (in the 1500s). There are increasing numbers of examples where performances are now made in the natural environment, which connect audiences with it, either deliberately or not.

Any performance in the outdoors, and a natural or semi-natural environment, will reconnect people to the environment to some extent. This was observed in an outdoor performance of *The Canterbury Tales* by Chaucer in Lancaster, UK in the Williamson Gardens by *Dukes Playhouse Cinema*. The play was performed in different parts of the gardens and made full use of the natural features, including a paved plaza, a sunken dell before a fern-covered cliff, where the audience sat on a grassy bank, a track through a forest where the audience sat on logs up the slope on either side of the track, a sunken grassy amphitheatre where the audience overlooked a revolving stage, and a final scene where the audience sat on logs surrounding and looking up at a circular stage built on a rise in the middle of the forest, with evocative mist and lights in the trees. Although the players probably did not set out to deliberately connect the audience to the natural environment, the performance did so through its ingenious use of the natural spaces in the park, and it demonstrated the value of performance in a semi-natural environment.

Some groups use rituals and, what might be called ‘celebrationist’ art, to connect their audiences in a non-didactic way to the natural environment. Examples from the UK include a community arts form called the *Moveable Feasts* (Gee, 2004), and the work of the group *Common Ground*. The latter is an arts based group that does place-based events – a kind of ‘evolving celebration’, developing ways of ‘navigating the great common wealth of nature, landscapes, buildings, settlements, histories, myths and stories’ (Clifford, 2000; Common Ground, 2004).

Other groups use larger scale pageants and large outdoor performances or events in a purposeful way to link audiences with the natural environment. One example of this were the large pageants that were staged by *Bread and Puppet Theatre* on their farm at Vermont called the 'Domestic Resurrection Circus' (Bell & Simon, 1997; Simon & Estrin, 2004). These pageants grew to attract up to 30 000 people before they were discontinued in 1998, and replaced with a series of much smaller performances over the summer. The original *Domestic Resurrection Circus* consisted of sideshows about the 'understandable and possibly manageable quirks, outrages, and pleasures of daily life', and a puppet circus which was 'grand celebrations of the ridiculous possibilities of the same', while the Pageant was more about the natural world and dealt with themes of good and evil, morality and justice, and renewal (Bell & Simon, 1997). The fact that the performance was in the natural environment was a vital aspect of these events:

The best thing we can get out of a pageant here is the clouds or the turning of light. The rest is minimal compared to that. If we succeed in getting an audience to be perceptive only to these elements, this would be perfect ... (Peter Schumann, quoted in Bell & Simon, 1997) experiencing the landscape, on "sitting together, without understanding" in order to come to "some sort of agreement about the greater grandeur" of that landscape ... is, Schumann says, "the main purpose" of the Pageants. (p. 19).

Another group which performs large outdoor pageants is *Welfare State International*, a theatre and arts organisation based in Ulverston, Cumbria, in the north of England. The company was founded by John Fox in 1968 and evolved from a company that did street performances into one that stages enormous spectacles which include puppetry, fireworks, music, technology, dance, and performance (Coult & Kershaw, 1999). The company was visited and interviews conducted as part of the overseas study tour. Formerly the company was primarily a touring company but five years ago built a purpose built base in Ulverston (the Lanternhouse). The company now divides its practice between site-based installations and performances at the Lanternhouse, e.g. (Cooke, 2001), performance spectacles (Coult & Kershaw, 1999), and small intimate ritualistic performances for special rites of passages, such as naming ceremonies (How *et al.*, 1999), funerals (Gill & Fox, 2004), time capsules (Gill, 1999), and weddings. The history of the group has been described by Fox (2002). The company regards all their work being about rites of passage and celebration – how artists can weave together with everyday life.

Their current work, *Long Line*, has been in progress since 2003 and deals with the ecology, microbiology and human history of Morecombe Bay. It has had three phases. In the first phase (*The One Rock Event*) they worked with ecologists and microbiologists to tell the ecological stories about the bay. Music was composed with children who created lyrics and music after workshops in schools, and this was developed further by their choir who performed it at an installation at the Lanternhouse. In the second phase they created an installation at the Lanternhouse which was based on stories they gathered about the industries from the bay and its human history (Figure 5.11). In the final phase the music will be developed further into an opera. Following a practice performance for a small audience, they will produce a major outdoor opera with a Junk Band and Wild Choir. Another thread to the project is a 'Café Scientifique' – meetings of scientists to discuss how artists and scientists can work together. Meetings and informal seminars occur at the Lanternhouse café, which is open to the public.



Figure 5.11: Part of the installation of *Long Line* at The Lanternhouse, the base of *Welfare State International*, Ulverston, UK

A major event that they have been associated with is the annual lantern parade in Ulverston where they are based. Originally initiated by *Welfare State*, this event now belongs to the town. Having grown from six to 600 lanterns, it attracts 10,000-12,000 people to the town. Five communities within Ulverston each have their own musicians and converge with their lanterns to a central place. *Welfare State's* input is to create the finale of fireworks and to teach lantern-making. This company, and in particular the lantern parade, has influenced many of the nature pageants that have been examined in Australia as part of this research, including the Gunnedah Twin Rivers Festival, the Albury Enchanted River Festival, the Woodford Folk Festival Fire Event, and the Lismore Lantern River Festival (see Chapter 6), as well as artists who do this kind of work, such as Cameron (1993).

These forms of celebrationist events may well become the most prevalent forms of ecological performance. According to Sanders of *Underground Railway Theatre*, large events such as those described here are perfect to connect audiences to the natural environment: they take place in the environment, they celebrate one or more part of the environment, they are multi-arts and have the size that is required to provide a sense of awe about the natural environment. Festivals can be a powerful means by which people develop a sense of place and link it to ecological system and to change their view of landscape (Measham, 2003; 2005), and also create a civic culture and pride in community (Kapferer, 2002). There is an innate power in music and dance as a 'joyous medium to bring people together' (Green, 1995). Several occur in the USA, including a big project to celebrate the Connecticut River in Minnesota. The *Heart of the Beast Puppet Theatre* is a theatre company that uses huge Schumannesque puppets to celebrate the land and cycles of the land. Other events which fall into this general category of celebrationist events, include the large 'Aero' concert and audio-visual show held among a windmill park near Aalborg, Denmark in 2002, and powered by them to celebrate wind power, by the French electronic musician, Jean Michelle Jarre and which attracted an audience over 35,000 people despite being rained upon (Jarre UK, 2003). In Australia the annual Festival of the Sacred Kingfisher in Melbourne also fits in with this category (Bittar, 2004; Kari, 2000; Mills & Brown, 2004).

5.3 Catalysing ecologically sustainable development

In the forgoing sections we have described how the arts can assist in communicating information about the environment, and how they can connect people directly with the natural environment in different ways. In this section we suggest that the arts may have an even more profound contribution to make in transforming our highly energy-intensive consumer society to one which is ecologically sustainable. The sustainability discourse is dominated by environmental scientists, sociologists and economists and overlooks the role that the arts might play in ecologically sustainable development. It is common to read books on sustainability which make no mention of the arts (e.g. Beder, 1996; Bierbaum, 1991; Brown *et al.*, 1991; Common, 1995; Costanza, 1991; Goldie *et al.*, 2005b; Okonski, 2003; Walker, 1994). Environmental organisations and agencies appear slow to realise the full implications of integrating the arts into environmentally sustainable development; seeing the arts, as best, as merely communicating a message and therefore somewhat marginal to the real concerns of environmental action.

The Rocky Mountain Institute in Colorado, USA works with companies and communities to assist them in becoming more environmentally sustainable. They focus on reducing the energy and material resources required in producing goods, and thus improving profits and employment opportunities by using less resources. As part of the study tour the Institute was visited and Michael Kinsley, a specialist in sustainable economic development, was interviewed.

Environmental impact is proportional to population, affluence (the amount consumed per person) and the energy and material resources consumed in producing that affluence:

$$\text{Environmental Impact (I)} = \text{P (Population)} \times \text{A (Affluence)} \times \text{R (Resources)}$$

As with many organisations working in the sustainability sector, the Institute's focus was on reducing environmental impacts by reducing the use of resources, for example by using renewable resources no faster than they could be renewed, by using non-renewable resources on the understanding that one day a renewable substitute will be required, by seeking ways to strengthen an economy without increasing 'throughput' (e.g. through energy efficiency), by focusing on getting better rather than bigger, by seeking development that increases diversity and self-reliance, by putting waste to work, by regarding quality of life as an essential asset, by considering the effects of today's decisions on future generations, and by considering the off-site and cumulative effects of decisions (Kinsley, 1997). They believed that investing in energy efficiency and renewable energy can solve environmental problems, create jobs, and build stronger communities (Hubbard & Fong, 1995).

Kinsley said that the overall paradigm of growth is hard to alter, as in many cases those interested in sustainable development are speaking an entirely different language to the developers. In common with others working on sustainability he recognised that the arts had a role in 'marketing' the environmental sustainability message (e.g. through the use of digital graphics, interactive computer software, and animation, realising that the arts can be useful in visualising incremental change and bringing it to our attention, as well as visualising different scenarios for a community or landscape).

But what of the amount that is consumed? Can the arts have an effect on this? The following section provides some examples where the arts have led to community development and where they have been integrated into environmentally sustainable development in rural, regional and urban situations. Some arts practitioners, particularly those engaged in the broad area of community arts, see the arts as an important institutional element in sustainable societies, e.g. Fox (2002) and Galblik (1993). These examples show that the arts, or at least particular art forms, should be considered as a vital component in environmentally sustainable development.

5.3.1 The arts and community development

The arts have the ability to engage the wider community and reinvigorate rural communities, both economically and socially, and are a vital component of community development, which then will have spin-offs in capacity building for environmental sustainability. This has been recognised by various Australian researchers and practitioners (Hawkes, 2003; Kingma, 2002; Mills & Brown, 2004; Rogers, 2003a, 2003b; Rogers & Spokes, 2003). In his review of the role of the arts in community development in Australia, Ireland, North America, and the UK, Kay (2000) found that participatory arts projects had an important role in regeneration of areas whose residents are disadvantaged economically, socially, culturally, and environmentally. In particular the community arts improved the effectiveness of community development, and arts activities provided tools with which people could take a greater control over their lives, and through that become more confident and employable, and more involved in community affairs.

The process of theatre is conducive for operating in the social sphere, as it requires empathy, working for the common purpose, and can be confronting and challenging (Neelands, 2004). Neelands argues that it is important that we have to get away from the idea of the arts as a seductive means to withdraw from the world rather than engaging with the world. All youth need to be able to participate both artistically and socially as actors and audiences. Unless there is the possibility of full participation of all in both 'social and artistic theatres' then drama just serves the upper class. There are many examples overseas of where the arts have been instrumental in community development. Some examples include:

- the use of theatre in prisons in Mexico which had an astounding success in humanising prisoners, and the Festival Hispanoamericanas de Pastorelas (the Pastorella Festival) which makes possible the integration of diverse social groups (amateurs, children, and various social agencies) in performances that reflect social concerns and the building of communities (Morell, 2004);
- creating an original popular theatre production within a small, rural community in Canada with people living with mental disorder(s) which created a 'safe place' where participants could express themselves and allowed them confidence and enabled them to control their emotions (Noble, 2004);
- the use of community theatre to assist migrants in Canada (de Guevera, 2004);
- the use of a theatre-based educational program which taught employment skills to street-involved youths' experiences as troupe members (Lawrence, 2004);
- using theatre to assist young offenders and children with special needs (O'Connor, 2004);
- the use of arts processes such as theatre and music in peace building and conflict resolution in Bosnia Herzegovina (Zelizer, 2004);
- using cultural tools for community development in urban areas in Croatia (Ziljac, 2003);
- bluegrass festivals providing 'portable communities' for people coming from 'community-starved' home neighbourhoods in the USA (Gardner, 2004).

The production of *Living at Hurford* is an example from the UK that demonstrates the value of the community arts in community development. An interactive community performance was orientated towards healing a rural community in the county of Devon, England that was traumatised by foot and mouth disease (Somers, 2004). It converged on community facilitation and also provided ideas for incorporating theatre into extension. John Somers, the author of this work, was spoken to as part of the overseas study tour (Figure 5.12).

Somers developed an interactive community performance that allowed audience members to explore and validate their life realities. His theatre practice is what he calls 'applied drama', and through it he aims to use it to make a lasting therapeutic effect. To some extent all drama is therapeutic, however

some drama, such as Somers' work, is specifically prioritises the therapeutic aspects. In Somers' view drama assists people to construct their identity. A person visits a dramatic experience and then if the experience is significant, a process of intertextuality between their life story (identity) and the theatre story occurs. In a person's life millions of things will happen to them. Most 'lie on the cutting room floor', having been edited out as one constructs one's identity'. Somers contends that there is more and more evidence that drama affects people, and changes occur to attitudes and behaviour and attitudes as a result.

The Living at Hurford tells the story of a woman (Janet) running a farm – her husband is clinically depressed and working several jobs to stay viable. Their farm is 'going down the tube'. They have two children – a son in the army and a daughter studying business and economics at university – soon to graduate. When the audience bought a ticket they each received a packet, including income and expenditure statements for the farm, an obituary of someone who had died, a school report, a letter from a solicitor, a birthday card etc. These elements were keyed into the story and provided factual information which would normally have to be included in the play.

The play took the audience through the experience of this family as they worked out what they should do with the farm and included flashbacks and protest scenes. The play included a high level of interactivity as Janet is faced with many decisions and possibilities, and the audience was asked what she should do. The audience talked with characters in the story, and then gave advice to Janet. The last play was performed in an actual barn on a farm at which all the stock had been slaughtered during the Foot and Mouth outbreak. The show avoided 'closure' as Somers came on and said 'we don't know how this will end as Janet will continue to confront problems – but thanks for helping them all'. Original live music was used and the performance was followed by a country dance to a live band in the yard outside the barn as a way of celebrating community and its ability to survive and heal itself.



Figure 5.12: *The Living at Hurford* – theatre being used to heal a community traumatised by foot and mouth disease.

Left: The play told the story of a farming family battling with foot and mouth disease.

Right: Ordinary farm sheds were used as some of the performance venues. (Photos: Brian Salter)

The data Somers collected from this production included audience responses by email and letter, messages that people wrote and tied to a wicker cow (called 'Marigold'), 35 responses from those involved in the production (including musicians, all from the farming community), reviews and media comment, interviews with audience members and production members immediately after the event and six months afterwards, and his own observations.

The first performance had very few farmers in attendance. The word went around that the play was good and the audience for the second performance included many farmers, and the last was full. Somers found that community members felt validated – that someone cared about their experience and that the play was considered to be authentic. As to whether the performance led to long-term change or not,

Somers worked on the principle that if people remembered it six months later it was probably significant – and many did. The play helped people to make liaisons. Rural communities are often fractured and this brought people together. Years later friendships can continue, especially if more of these kind of activities are done. This play provided an example of a convergence in community development such as can occur through both Landcare and the community arts.

The arts are also useful means to explore issues in a rural community. Howard Cassidy investigated why young people leave the countryside in Queensland for the city and what would bring them back (Cassidy & Watts, 2004). He did this through the production of a play *Snagged – An Australian play about growing up, leaving home and sausages*. He said that about 10,000 young people are leaving the countryside per annum leading to a death of the Australian iconography. The received wisdom is to try and stop youth leaving country areas by providing skate parks etcetera. He felt that the issue is not so much how to stop them leaving, because they will anyway for a range of reasons, but what will bring them back at a later stage in their life. He felt it was better for young people to leave if the community was unable to provide for their needs at this particular stage in their lives and to return when they could contribute their knowledge, skills and experience to the community. Not enough has been done to help youth ‘explore the possibilities of returning to their home communities some day, in search of entrepreneurial opportunities through which they can offer jobs (Kenyon *et al.*, 2001).

5.3.3 Integrating the arts with ecologically sustainable development in rural and farming communities



Figure 5.13: The Norwegian rural landscape, combining natural conservation, landscape conservation, agricultural production, farm forestry, and tourism. Do the arts have anything to offer in building ecological sustainability in rural landscapes?

Can the arts be integrated into ecologically sustainable development, or should they? What could the arts possibly have to offer? The following explores one English example to show one way that the arts might be integrated into ecologically sustainable development.

Littoral is an arts organisation based in the north of England near the town of Ramsbottom, Lancashire (Littoral, 2004). This is an old industrial town in a valley surrounded by hills that have been mined, quarried and cleared, and where the upland farmers struggle to eke out a living on the hilltops. Ian Hunter and Celia Larner from *Littoral* were interviewed as part of the overseas study tour. *Littoral* combines research, development and project management and works on many arts projects with farming and rural communities. Hunter is originally a basketry artist and is part of a movement of ecological-artists. He spoke of a new eco-aesthetic, and a convergence between eco-restoration and eco-art that was linked to regional development and urban and rural renewal.

Hunter had been artist-in-residence with a project in the mid 1980s through an agency called the Groundwork Trust (a quasi-government/non-government organisation) which combined urban regeneration, employment creation, and rural regeneration. It linked the rejuvenation of declining urban communities with environmental repair. The north of England at that time had high unemployment

because of the massive restructuring of English industry. He described it as ‘a post-industrial landscape; blasted factories, hundreds of acres of blasted industrial land, marooned industrial communities ... the environment was basically eroded, the social fabric was eroded’. In some ways the program was similar to some of the Labour Market programs that occurred in Australia in the 1980s and 1990s. However, as well as including environmental works such as tree planting, it also added a public art component.

One of his projects involved a 2 year project planting willow trees with a local primary school. They planted willow into a living sculpture, created a whole ecosystem, cropped it, made baskets, charcoal and iron, and developed mathematics teaching and language teaching around it. The students essentially became tree and charcoal farmers. The project is still running 12 years later, having become part of the school program. The advantage of incorporating the arts component into the project was that it helped it endure long after the planting of the trees (a problem with many community tree planting projects).

Arising from research conducted as part of the project, they found that the whole of the northwest English landscape had been dense forest of oak, ash, and beech. up until the 18th century. The forests had been managed on a coppice-standard system to produce charcoal for iron-making. Britain had been primarily rural but between 1830s and ‘60s it ‘flipped’ the other way around when coal replaced the forests as a supply of fuel, thus ushering in the industrial revolution which led to almost total deforestation. Until the 1940s, most containers that did not hold water were made from willow, including containers used by the chemical, cotton, fishing and farming industries, and the Northwest of England was one of the biggest willow growing areas in Europe. Other forest based industries included the production of potash from bracken. About an eighth of the coppice was used for basketry and the rest for charcoal and hundreds of people were employed to make baskets. Thus the woodlands were a big industry, but now there are only a few people who keep the methods alive (interviewee Walter Lloyd being one).

After the second world war, there was a rapid decline in the willow industry due to the replacement of willow by plastic manufactured from oil. Looking towards the eventual decline in oil supplies *Littoral* was developing an initiative that would include massive reforestation using willow, a renewal of the basket-making industry coupled with a marketing initiative, and rural land rehabilitation. Essentially they were proposing to link an arts and crafts agenda with agroforestry, ecological restoration and regional development. They were not interested in the ‘revival of some 19th craft hokey tourist thing’ but in developing a fundamental model where there was ‘no loss of skill, no loss of sustainability’ and which was ‘building capacity into [the] culture ... generating employment for artists, giving farmers an alternative, reducing energy, taking carbon out of the atmosphere’.

Hunter’s arts practice had been greatly influenced by ecological artists in the USA, notably Helen and Newton Harrison who were pioneer ecological artists in the 1970s (Cembalest, 1991; de Groat, 1994). The ecological art movement grew out of the environmental and land art movement which often involved large earth works, and was exemplified by artists such as Robert Smithson (Kastner & Wallis, 2001). There was a reaction against these large interventions in the landscape, and so emerged the practice of ecological art where living ecosystems were incorporated into the artwork, and where the artwork had a strong restoration function. According to Hunter there has been a convergence between ecological art and ecological restoration. Yusok Koh (an American /Korean ecologist landscape architect), Lucy Lippard, Suzi Gablik and others developed the idea of ‘the ecological aesthetic’ – a practice that took ecological theory and combined it with landscape restoration and ecological art:

... [there] is a whole debate within the art world ... about the “wrong” aesthetic and the search for a new aesthetic that would enable our culture to modify its pathological behaviour – an ecological aesthetic ... The field you’re working in [referring to the work described in this report] is actually part of a convergence – where the problems in post-industrial urban consumer society (which is obviously destroying the planet rapidly) and the theories of ecological restoration ... have become intersected ... (Interview Ian Hunter, arts practitioner, UK, July 2004).

The work of ecological artists such as Hunter, point to a way where the arts can be integrated with ecological restoration, and environmentally sustainable development. Another example is an ecological restoration project linked with the construction of a field studies station as part of a public artwork in 1992 by the artist Mark Dion in collaboration with The Chicago Urban ecology action group (Dion, 1995). Other examples are reviewed by Cembalest (1991), de Groat (1994) and Kastner & Wallis (2001) and include the work by Helen Meyer Harrison and Newton Harrison who work on ecosystems, documenting degradation and proposing solutions. Another example is the 3 Rivers 2nd Nature project in the USA which involves scientists, artists and policy experts in addressing aquatic, terrestrial and social issues of rivers and streams (Collins, ca. 2004, Collins & Goto, 2004; ca. 2004). Australian examples of ecological artists are provided by Grant (2001), and Norman (2001). There are also certain community arts projects which have linked ecologically sustainable development in rural areas with the arts, such as Sunrise 21 (a multi-arts program concerned with natural resource management on the Murray River) and The Murray Story, a participatory community theatre involving scientists and decision-makers (Mills & Brown, 2004). A community arts and cultural development project that was linked with wind energy is provided by O’Hara (2002).

5.3.4 Integrating the arts with ecologically sustainable development in regional centres

Several of the examples already described have touched on how the performing and visual arts can re-invigorate rural and regional communities. One example where this phenomenon was striking was the arts organization *Welfare State International* in Ulverston, Cumbria. This organisation had led to the reinvigoration of the Ulverston district and has been a significant force in regional development, and was visited as part of the overseas field work (Figure 5.14).

The company has had a significant effect on regional development. Ulverston is a farming/rural community of 6,000 people. Morecombe Bay used to host the largest shipyard in UK at Barrow, with 30,000 workers on wharf and Morecombe was the UK’s second largest holiday resort, famous for its comedians and entertainers (George Formby, Eric Morcombe and Stan Laurel all came from there). All these industries have significantly declined with substantial restructuring of the English economy. There are now only 3,000 dock workers and there is huge unemployment:



Figure 5.14: 'The Lanternhouse' – the centre that *Welfare State International* established in Ulverston, Cumbria, UK.

The place was depressed both economically and culturally. Inspired by the Utopian ideas of John Ruskin and William Morris we instigated a programme of large scale participatory festivals using big sculptural lanterns and hundreds of flags. (John Fox in Cooke, 2001)

Welfare State found that their artistic work has regenerated the communities around Morecombe Bay through the network of artists who create collaboratively and are committed to the 'Arts of Celebration'. They established an arts centre in the town and were instrumental in establishing an annual lantern pageant that now attracts 10,000 visitors to the town. They have attracted many artists to the area, which is spawning its own dynamic and creative momentum, and tourism has followed with people coming to the town to attend their courses and exhibitions, and participate in the lantern event. Their Publicity Officer, Anthea Rathlin-Jones, said that the arts don't necessarily create rapid social change. They are a good vehicle for getting messages across, but one needs time to see the changes.

Welfare State is an example of how the arts can reinvigorate communities and lead to regional development. There is a growing recognition of the arts in this regard (Florida, 2002). The economic values of the arts are developed in more detail by the Australia Council for the Arts (2003) and Borghino (2000). As well as providing employment, it is clear that the arts can provide opportunities to attract people back to rural areas and to improve the culture of regional centres which then attracts professionals to the rural areas. This phenomenon was evident in the case study *The Plague and the Moonflower* (Chapter 6.7).

5.3.5 Integrating the arts with ecologically sustainable development in urban areas

Part of the overseas review included visiting several towns and cities in the USA, Canada, Norway, Italy and the UK and examining examples where public and community art were integrated into urban design and environmentally sustainable development. Observations from these cities showed that public and community art can have a vital role in a post-consumer society in providing employment, in enhancing urban and rural environments, and in structuring our environmental behaviours. This view supports previous work in Australia, such as that of Guppy (1997). There are at least six particular ways that the arts can be integrated into urban planning to assist environmental sustainability.

1. Integrating public artworks into an urban space designed around public transport, pedestrianisation and bicycle transit

The integration of public artworks into an urban space that has been designed around pedestrianisation, bicycle transit and public transport is exemplified in the cities of Portland (Oregon, USA), and Oslo (Norway). In the central areas of both of these cities facilities for pedestrians have been strongly encouraged through the use of closed off streets, pleasant footpaths, and encouragement of cycles. Public transport incorporating buses and trams, (as well as ferries and trains in Oslo) is well planned and utilised. Throughout both of these cities public art works have been positioned extensively and purposefully as part of making the public space beautiful and enhancing the urban experience. Rather than seeing the positioning of sculptures as a somewhat peripheral exercise, it was evident that by enhancing the experience of the urban environment, the public art was contributing to the attractiveness of the alternative methods of transit to cars. Walking, cycling or using the tram was not only easy to use due to the decisions made over infrastructure, they were also attractive options for travel because of the urban space itself. Both cities are examples of, what Cunningham *et al.* (1998) calls 'the walking city', and (Engwicht, 1992) calls the 'eco-city', where arts, architecture, urban design and ecologically sustainable development are integrated to reduce the need for car travel, and thus to reduce greenhouse gas emissions.

Portland is a city of half a million people. It clearly prioritises alternatives to car travel (public transport, cycling and walking) while discouraging cars (Figure 5.15). A comprehensive bicycle strategy which includes the building of over 240 kilometres of bicycle lanes, boulevards and off-street paths, redesign of road intersections, the provision of abundant parking for cycles, and provision for carrying cycles on buses or trams, increased the use of bicycles going across the Hawthorne Bridge from 200 per day in 1975 to nearly 2,000 in 1995 (City of Portland, 1996). Walking was encouraged with seats and drinking fountains evident in each block. The city had an excellent bus and tram system. Some streets had priority for trams, others prioritised buses with two lanes for buses and only one for cars (Figure 5.15 – top middle, bottom). The railway station was a sheer joy to enter, the building having been tastefully renovated and the surrounds landscaped with what appeared to be careful affection. The transit lane on the freeway which took traffic out of the city was ruthlessly policed to ensure cars with only no passengers were not in the transit lane.

The emphasis on public art in the CBD was exemplary (Figure 5.15 – top right). The streets were lined with trees and flowers, and had public art in abundance (at least one sculpture on each block and an active mural program (City of Portland, 2004). Tourist brochures served as a guide to negotiate the public art works. The cultural precinct of art museums and theatres was arranged around an attractively landscaped park. It was readily apparent in this city that civic culture, public art, urban planning and environmentally sustainable behaviour were strongly integrated (City of Portland, 2004 [1980], n.d.; Portland Bureau of Planning, 2004). Creating a beautiful urban space can be considered a good way of reducing inequality by increasing the social wage – everyone benefits equally from beautiful urban public spaces – rich or poor alike.

Oslo is the capital city of Norway and is a city of a similar size to Portland. Public transport is efficient, easy to negotiate and enthusiastically utilised, and combines trains, trams, buses, and ferries, which are

integrated with a single ticket system. The centre of town is strongly pedestrianised with many closed off streets, bicycles are very apparent, and cars are virtually absent, having been diverted by a ring road. As with Portland sculptures were abundantly evident (Figure 5.16). The initiatives in Oslo and Portland mirror initiatives in other cities where art has been used to make public transport more attractive, such as in Moscow where art is placed in railway stations (Brown, 2001).



Figure 5.15: Portland Oregon, a city proud of its integration of (top left) encouragement of bicycles, (top middle and bottom) excellent public transport, (top right) accessible public art, and (bottom) attractive urban landscaping.



Figure 5.16: Oslo, Norway – public art (left) integrated into an urban design that encourages non-car modes of transport (right).

2. Incorporating landscaping into the urban space, and combining with it public art

Landscaping can be considered an art-form itself. By integrating landscaping with public art works and public transport the advantages outlined in providing public art are further enhanced. Cities that demonstrate this include Portland that articulates an urban design based around creating ‘rooms’ each characterised by distinctive landscaping and art works. In Burlington in Vermont USA, (a city of about 45,000 people), as part of an urban renewal, streets had been closed off for public malls which, like Portland, included attractive landscaping and public art works.

3. Integrating public art and parklands

The integration of sculptures and public art into parklands is a common enough idea. However a rather impressive example of where it was having spin-offs into environmental behaviour was in Oslo, and the Vigeland Park. In the 1920s, when Gustav Vigeland was in his 30s and already a recognised sculptor, he and the city came to a most unusual arrangement. The city wanted to tear down the place he was living in and agreed to build him a building that would act as his studio for the rest of his life. In return he would donate all his sculptures to the city and the studio would become a museum for his art. He then went on to spend 40 years constructing 212 sculptures which are arranged around a huge park that he designed and built with the aid of team of sculptors and landscapers (Figure 5.17). The sculptures are large brass or granite figures of people, experiencing every imaginable human emotion, from birth to the grave – men playing with children, women and men arguing or embracing, a woman comforting her friend, a boy having a tantrum, a girl sitting quietly, a man supporting his dying father – in essence, the cycle of life. The museum contains the original clay moulds of the huge sculptures.



Figure 5.17: Vigeland Park, Oslo, Norway (left) – an impressive example of public investment in art (right), that is leading to long-term effects on environmental behaviour.

From the context of our research it was significant to observe how this monumental site of public art was affecting people's environmental behaviour decades after it was built. People were able to get to the park by bus, tram, train, bike or walk (as well as by car – the park was serviced by a small car-park), and do so in large numbers. In a sunny late evening in the summer the park can be packed with people doing ordinary things – kids playing on skateboards, hundreds of young people sitting having picnics with portable cookers and bottles of wine sitting talking and laughing, elderly people walking the dog, mothers and fathers with children. Whilst sitting or walking in a park with friends might not at first sight be considered 'environmental behaviour', many behaviours which impinge on the environment are evident in this situation, such as mode of travel and consumption patterns which could be considered as non-materialist.

4. Public performances in urban spaces

Creating areas within cities which favour pedestrians, and in particular large plazas or closed off streets in the centre of the city makes public performances of different art forms possible. Examples are abundant, and those witnessed as part of this research included busking in Ottawa (Canada) and Oslo (Norway), street theatre (Perugia Italy), theatrical events (Trondheim Norway), and community performances (Revelstoke Canada). Simply creating the space isn't enough to encourage outdoor performances. Many cities might have outdoor pedestrianised areas without public performances. To encourage them requires specific design features that create places to perform, coupled with constructive civic regulations.

Revelstoke is a small town of about 7,500 people in the heart of the Canadian Rockies in a bend in the Columbia River and surrounded by the most breathtaking snow-capped mountains (City of Revelstoke, 2005). Through a strong civic culture, it has successfully avoided the problems of towns further along the valley which have become devoured by ugly tourist and ribbon developments and 'big-box' retailers. The main street has been renovated with accessible public art works, attractive landscaping, patterned paving and abundant sitting space and outdoor cafes. Cars were banished, from the main street and the town appeared to have a strong walking culture. Outdoor public performances are a regular event during the summer and three major events are staged during the summer: the StreetFest, Mountain Arts Festival and the Beats and Blues Festival. These attract many different performers,

including jazz, blues, country and bluegrass bands, street musicians, jugglers, poetry readings and live theatre (Figure 5.18).

Whilst the town boasts an impressive community environmental strategy (Kaigi *et al.*, 2003) which deals with environmental issues such as energy, waste management, pollution, transport, and nature conservation, it was the passive forms of environmental behaviour that were encouraged through the arts-based activities (public and community arts and street landscaping) which were relevant to this research.



Figure 5.18: Revelstoke, Canada – a small town fuses public and community art and environmental behaviour. Residents gather on a summer evening to listen to the high-school band in the centre of town.

Trondheim (Norway) is an ancient cathedral and university town supporting a population of 170,000 people. Its wooden buildings and cobbled streets cluster around a central river. As with many European cities, it has a strong emphasis on non-car travel, with good public transport (buses and trains), and a pronounced bicycle culture. The centre of the city had large outdoor eating areas and plazas. Public art was common and community art readily apparent. For example, the city stages as an annual late-night outdoor opera especially commissioned for the city, which involves an enormous cast of amateurs as well as some professional actors and musicians and included horsemen, and large staged battles. It took place in a courtyard outside the main cathedral, as well as inside the church.



Figure 5.19: Trondheim, Norway: a ‘city in a forest’ (left) and (middle), with its famous bicycle lift (right) – environmental behaviour, rich cultural life, and nature conservation, combined

The city is surrounded by a 25,000 hectare planted forest (Figure 5.19a,b), replacing the ancient one that was destroyed in the nineteenth century for industry and building. Trondheim is described by the locals as a ‘city in a forest’. On our tour of the forest, the Forest Manager (Ole-Johan Saetre) said that it is managed for timber, conservation and recreation. The forest earns about 3 million kroner a year in timber. The city’s residents make 3.5 million visits per year (an average of 20 visits per person per annum). Each visit is valued to the economy as worth 100 kroner (purchase of walking shoes, parking fees etc.) and so the forest is worth over 350 million kroner p.a. to the economy for conservation and recreation. The foresters are gradually shifting the forest back towards indigenous species, and manage

it for a diversity of ‘colours, smells and experiences’. Harvesting of trees is done in such a way as to leave some tall trees remaining as they are the ‘spires in the church’ and are considered necessary for people who come to the forest for spiritual renewal. The forest is filled with walking trails and ski-tracks (Saetre, 2004). Urban forestry is a growing phenomenon in Europe (Konijnendijk & Schipperijn, n.d.).

Trondheim exemplified how conservation and sustainable development can be linked with the arts, and human health. It had successfully linked conservation of natural areas with regular direct contact of the populace with their natural areas, and appeared to have broken the habit of the car through an emphasis on bicycling and walking (Figure 5.19c). Both of these practices meant that being physical was a normal part of living not something that was done as something special (compared with the common Australian practice of driving to the gym and ‘pumping iron’). Finally the city had incorporated a rich cultural life.

5. Community pageants in pedestrianised urban spaces

A natural extension to public performances taking place in pedestrianised urban spaces is the large community event, festival, or pageant. This is exemplified by an annual event that takes place in Siena, Italy. In common with other renaissance cities in Italy, Siena has many impressive buildings that are decorated with breath-taking sculptures and frescoes.

Siena is a walled city, and inside the wall the only motorised vehicles allowed are delivery vehicles, and the ubiquitous motor scooters. The centre of town is dominated by a huge piazza. Since medieval times, the town has been divided into 16 sectors, each with their own colours and patron animal. As one walks down the narrow medieval streets, one can observe all the street lamps painted in the colours of their sector and decorated with sculptures of their animal (e.g. a wolf). Each year there is a horse race in the central piazza, where all the sectors compete. There are street parades and citizens dress up in their colours. In a spectacular display, the horses ride around the square, some crashing into the boarding that is put up for the day to protect all the cafes lining the square. The next day the victorious sector parades through the streets in medieval costumes of blue and yellow, accompanied by a large band of drummers, while others wave flags and throng behind with blue and yellow silk scarves (Figure 5.20).



Figure 5.20: Siena, Italy with its famous piazza (left) and a parade of the victors from their annual horse race (right).

6. Integrating community art into the life of the city

The integration of socially orientated community art into the urban environment can also add to the other measures already described. An example of this is the work of the artist Mierle Laderman Ukeles who developed a series of performance-art and installation artworks with the New York garbage men (Gablik 1993, pp. 70-75). She placed large mirrors on the side of garbage trucks, so that as they drove around the streets they reflected the people who created the garbage!

These examples reveal that integrating the both the visual and performing arts into urban design can enhance any planning that seeks to improve environmental behaviour. They demonstrate that cultural elements are an important part of infrastructure planning and should not be overlooked in any urban designs to improve environmental sustainability. Encouraging arts-based activities can lead to a stronger walking culture, and through that, a stronger sense of community coherence and civic pride, where citizens value the aesthetics of the urban space. It could then be expected that these cultural characteristics would then overflow into greater activity addressing more difficult environmental issues that all urban areas are faced with.

5.3.6 The arts as an integral component of a post-consumer society

Chapter 1 introduced some of the environmental challenges that face Australia. Many of these problems are being driven by mass consumption coupled with population growth (Goldie *et al.* 2005b; Hamilton, 2003). Everything that is consumed consists of extracted natural resources and embodied energy, and once consumed, ends up as solid, liquid or gaseous waste.

To some extent the arts, have been implicated in the growth of consumerism in western countries. Corrigan (1997) suggests that mass consumption by the middle and working classes evolved from the Romantic movement and the arts. The Romantics eschewed tradition and promoted individual expression. Artists moved from a system of patronage to having to work, effectively, as small business-people. They either produced work that was popular for mass-consumption or they 'starved in a garret'. Technology facilitated this process. Artists no longer had to work as part of a team but could work alone. For example with the invention of tube paints artists no longer needed assistants to mix their paint for them and they could more easily paint alone in the open air (Alexander, 2003). Although the Romantics eschewed and reacted against industrialisation, it was their idealisation of 'the individual' that assisted in the growth of consumerism, by developing the idea of individual actualisation and self fulfilment (C. Campbell, 1983, quoted in Corrigan 1997, p. 13). This idea was readily expropriated by industry and converted into the notion of construction of identity through what one consumes (Baudrillard, 1988, quoted in Corrigan, 1997, p. 20).

The other factor which led to mass consumption was the effect of the growth of industrial capitalism and mass production. Industrialists needed to create a market for their excess production, and they did this through the development of advertising. The arts – music, performance, visual arts – have become tools of the advertising industry to sell products, and to create a 'need' where none previously existed.

Furthermore art products are another form of consumerism. For example, musicians create music, it becomes a product, concerts use energy, CDs, DVDs, and videos are produced and give rise to a new wave of consumer spending for the machines that play them. The music and images become part of the advertising and marketing industries – from the music that is selected to encourage spending in supermarkets (Hargreaves & North, 1997; North & Hargreaves, 1999), to the fashion industry. Both the popular arts and the elite arts are embedded into the consumer 'machine' and some art itself is a major form of investment and capital expansion.

The arts might be implicated in being part of consumerism in other ways too. According to the French sociologist, Pierre Bourdieu, the upper classes define themselves by using the elite arts, and use culture as a means to exclude people from their class (Bourdieu, 1983, 1984 [1979], 1987). Diamond suggests that one of the reasons that societies collapse is when the elite insulates themselves from the effects of

their actions (Diamond, 2005). Might the use of the elite arts to exclude people be part of this insulation process? Certainly throughout history the arts have been used by the powerful to assert their dominance, whether through the use of propaganda (Clark, 1997), or simply to display authority. But then the arts (or at least dissenting arts) have also been a means to break through this 'insulation', such as the expressionists in the 1920s, rock music in the 1970s, or pre-revolutionary art in Russia in the early part of the 20th century.

So it is possible to see the arts as part of 'the problem' – like many other human activities they contribute to environmental degradation and can be used by organisations that promote consumption (Gold & Revill, 2004). Some art theorists and practitioners have tackled this dilemma. Gablik critiques modernist art and avante-garde art, and sees the idea of the artist as being disengaged from society and interested only in the art object, as unhelpful to finding solutions to the environmental problems facing contemporary societies. She considered that much art is simply another form of consumption and articulated new forms of arts-practice by which artists could engage with communities to develop solutions to environmental degradation (Gablik, 1993). Many of these arts practices have already been introduced in previous sections. The following section introduces some ideas relating to actual patterns of consumption and where the arts have a function in finding alternatives to mass consumption of resources. It is based on interviews with arts practitioners as well as the literature.

What is the alternative to mass consumption? The paradigm of mass-consumption is hegemonic and solutions have significant economic and social dimensions, and it is well outside the scope of this study to examine in any depth. All we can do here is to introduce how some arts practitioners have approached the problem, and recommend that this be a fruitful line of inquiry for future research.

In his review of the sociology of consumption, Corrigan suggests that the ethical framework that influenced our attitudes to consumption have changed over time. Previously 'old money' could demonstrate that their family had kept its wealth over generations by having possessions with patina, while 'new money' had possessions that were new, and therefore without patina (Corrigan, 1997, p. 5). However the evolution of fashion changed all this. The old idea of 'it ain't broke don't throw it away' was abandoned and owning old things revealed that you were unfashionable. Possessions with patina were no longer prized; only new things were. The environmental ramifications of this shift in consumption are obvious, and recent research in Australia has found that garbage tips are full of things that have been hardly used.

How does this relate to the arts? As a sector, the arts have relatively low greenhouse gas emissions, water use and land disturbance, while having relatively high employment generation and income, and the high visibility of the sector gives it a large potential to encourage change in urban society (Foran *et al.*, 2005). As a generalisation, consumer items that are made by artists tend to have lower embodied energy and higher levels of embodied labour than mass produced items, whether it is hand crafted furniture, finely crafted musical instruments or paintings. Furthermore because of their higher emotional and actual value, they are more likely to be kept longer, and passed on as heirlooms. Another large source of consumption is in constructing buildings. Materials vary greatly in their embodied energy and wood. Stone and mudbrick have embodied energy that is an order of magnitude lower than products like bricks, aluminium and cement (Reardon *et al.*, 2001). In buildings in ancient cities the construction of buildings had lower levels of embodied energy in both the materials used, but also because large teams of artisans and artists were employed to create buildings of great beauty, that are effectively enduring public art. Contemporary examples of buildings with low embodied energy, low energy consumption, and where artists were involved in the construction and design, include both the Lanternhouse of *Welfare State International* (Figure 5.14), and the Rocky Mountain Institute in Colorado (Figure 5.21).

Public art and community art may indeed have a place in assisting the development of a new form of consumption based on non-materialism. Cities of the ancient world possibly provide a model for such communities, where surplus product is channelled into public art and buildings made from materials with low levels of embodied energy using skilled human labour (and therefore with low levels of embodied energy and low levels of greenhouse gas emissions). In third world countries the surplus

product tends to be put into jewellery and festivals, both of which involve the arts and are not energy or materially intensive. This phenomenon could provide a pointer to an environmentally sustainable economy where a greater proportion of the community's wealth is put into labour intensive, community-building activities like the arts rather than energy intensive activities, such as freeway construction. If urbanism ideas were adopted with intensive reliance on public transport, cycling and walking as a means for travel, freeways would be less necessary anyway. Corrigan makes the point that in a future, 'green society' consumption might be more of 'conspicuous leisure' than of 'conspicuous consumption of goods' (Corrigan 1997, p. 25).

The participatory art forms that have emerged in the last few decades appear to be a new direction within the arts where public engagement and community involvement is encouraged, rather than the art work being produced by a 'genius' artist in relative isolation. Participatory art forms evolved in the 1970s (Popper, 1975), and are particularly evident in some types of public art (Jacob *et al.*, 1995), the community arts (Hawkins, 1993; Mills & Brown, 2004; O'Hara, 2002), and in the practices of some individual artists (Gablik, 1997). Many of the examples provided in this report fall into this category, including the community theatre of Somers, the facilitated work of Hunter and Lister, the production of events with large numbers of volunteers, such as *Welfare State International* and *Bread and Puppet Theatre*, and several of the Australian case studies (Chapter 6). This form of arts practice appears to be highly sympathetic with the evolving needs for environmentally sustainable development.



Figure 5.21: The Rocky Mountain Institute, Colorado, USA, specialising in ecologically sustainable development through development of alternative energies and technologies which minimise waste. A contemporary example of a building with low embodied energy through the use of stone (left), and low energy consumption (right), and high input from artists and artisans.

Community artist Ian Hunter echoed thoughts of Rosi Lister, when he said that the training of visual artists was not conducive to a strong community development role. Graduate artists were orientated around single short-term projects. He advocated longer term projects that lasted for years. Instead of what he called the 'consumer urban model' where the artist is seen as 'the genius' who goes into the world and reveals their experience and 'everyone goes clap clap clap' and where the artist 'moves in front of the experience' he was looking at art as a process which involved the community, where culture was 'a membrane' by which the community negotiated its values:

I talk about a membrane ... Our job as artists as I see it, is to keep this membrane alive and sensitive and not to take authorship ... Instead of art as the product of an individual ... what [we've produced] is ... an envelope of understanding, of which [we] are not the sole author. There are many other artists, including the community ... [We] are contributing to this kind of field, this membrane, by which the world and the community are able to see through to each other ... I'm very interested in the idea 'is the art work the destination or is it the point of departure? ... the artwork is not the object. The art whether it's theatre or a piece of sculpture ... is simply a way of navigating through [to] this deeper understanding. The artist may be producing paintings – those are ... *evidence* of the experience gathered, but it's not the destination, and the artist, she or he may be the authors of those evidences, they're not the genius ... Art is a way of being in the world. There are other ways of being in the world ... [the artist's] practice is a way of engaging with the world and out of that comes wisdom and understanding. Artists do not have a monopoly on creativity.

These comments mirror a rising trend among artists, particularly community artists, to break down the ideal of 'heroic lone artist', and encourage a participatory model where artist work with community, scientists and others, to develop solutions to environmental degradation (de Groat, 1994; Gablik, 1993).

Peter Schumann is another artist who is concerned about the arts becoming just another form of consumerism. In a lecture to art students he highlights two opposing discourses which run through the arts:

Two years ago Mobil stated its philosophy in the New York Times: "Art for the sake of business. What's in it for your company? Improving and inspiring the business climate. Identification with quality." Yes, Mobil says it all blatantly: "The Arts are a natural ally for any successful business."

You as an artist may never be sure just what you are good for, but don't worry, Mobil has figured it all out for you. Mobil says: "The Arts spark economic development and encourage commercial real estate projects." Did you ever realise that the value of your picture could be calculated so cleverly?

Eight years ago I started with my friends and company a business that we called Cheap Art. We said:

Hurrah! Art is cheap!

Art does not belong to banks and fancy investors.

Art is food. You can't eat it but it feeds you. (Schumann, 1987)

It is part of Schumann's philosophy that art is as fundamental as eating bread. In a similar vein. John Fox of *Welfare State International* had become 'disillusioned by the increased commodification of art' (Cooke, 2001). From an early stage *Welfare State International* was searching for ways to counter materialism through the creation of celebrations:

Currently we live in a materialistic society; religious beliefs are declining and there is no structure of myth. We try to find archetypes that are universally shared, and present them in an idiom accessible to a broad audience. (John Fox, quoted in Coult and Kershaw (1999).

This preoccupation to articulating alternatives to the consumer society led to them using their experience in performance to create more intimate rituals, such as for funerals:

The battle now is for power and oil, of course, but it is also for ideas and ways of life. And ideas usually win. So we, the artists, the unwilling holders of some understanding of the nature of the creative soul, must project our own understanding of art as a mode of knowledge. If we don't others will... I am inspired by Thoreau living in solitude by Walden Pond ... Finding peace of mind, to me, means continually connecting and reconnecting with our talents and potential and trying to humanise work. Striving to generate a creative and equal society where work need not mean economic conscription and where the imagination of the many may be as significant and free as the indulgence of the few. (Fox, 2002).

Thus, whilst it may be argued that some elements of the arts help promote a consumer society (either willingly or unwittingly), some streams of the arts have great potential in improving environmental behaviour. Through their special attributes of creating a memorable moment and in overlaying multiple meanings the arts can enhance the delivery of information and aid in communication, evoking a celebration of the natural environment and stirring our emotions, and providing a spiritual connection to the natural environment. At the community level arts events can have a strong social capital building role which can be linked into a celebration of environmental sustainable behaviours and aspirations (Curtis, 2003a, 2003b).

Chapter 6: Case study events

This chapter briefly describes the case studies that were investigated and some of the insights gained from them. The modes of analysis varied among the case studies, from participant observation, survey and interview of participants and audience members (Chapter 4).

6.1 Arts in education: The greenhouse effect

The greenhouse effect is a difficult scientific issue to communicate, yet it is potentially a catastrophic environmental problem for the next generation of Australians, threatening increasing drought, bushfires, declining water supplies, and increased flooding and storm damage (CSIRO, 2001a, 2001b). It is an issue that is connected to the lifestyle of the majority of Australian citizens to some extent. It is an ideal topic to test the use of the arts to communicate complex scientific information and to affect environmental attitudes and behaviour because of its broad links with many other key environmental issues in Australia (e.g. water, resources energy consumption, and urban sprawl), and because of its applicability to both urban and rural areas.

This trial was set up to get quantitative data on the use of theatre as a means of teaching about environmental issue and to further affirm the findings of (Fiske, 1999), that the arts have a valuable role in improving the learning across different subject areas in secondary schools. It grew out of play-building exercises done at several NSW schools in 2002 by Tara Ryan, the Artistic Director of the *Evergreen Theatre* based in Calgary, Canada (Section 5.1). Ryan was invited to Australia to conduct several workshops with schools to develop performances on the greenhouse effect. After a four day play-building process students from one of the schools performed their piece 'Climate Change Central the Network Show' as street theatre to a conference of scientists at the Solar Harvest 2002 Conference in Newcastle. Interviews with the students, teachers, the director and the organiser of the event revealed that the experience was very positive. The performers learnt about the issue through the process of researching and developing the material and the show added to the atmosphere of the conference.

The trial was established to investigate theatre in the educational context in more detail. It covered the causes of the greenhouse effect, likely environmental, social and economic impacts of greenhouse in Australia, the concept of embodied energy and the relationship of consumerism to greenhouse, and actions the individual can take to reduce the greenhouse effect. About 80 Year 9-11 Drama students were involved from three schools. Each group received a 40-50 minute presentation on greenhouse by reputed greenhouse scientist, Dr Mark Howden (CSIRO). They were provided with uniform reading material on greenhouse and used the Internet in their researches. Each group developed a 20-30 minute theatre piece summarising or responding to the scientific information. The time for development of the shows was 6-8 weeks, and they were then performed to audiences of secondary school students.

Tests containing questions on knowledge and behaviour were conducted before and after exposure to material. Five groups were tested: audiences who saw the scientific lecture, the performance or both, a control group that saw neither, and the performers themselves. Participant observations were made.

This trial is still underway. Early results indicate that the process of developing a piece of theatre is a good way to learn about a complex scientific issue like the greenhouse, however if the intention is to teach an audience about an issue then the script needs to be crafted by more skilled practitioners than what a group of teenagers can do over a short period. This accords with what the *Evergreen Theatre* found (Section 5.1).

6.2 The arts in extension: Greening Australia

For over ten years one of the authors (Curtis) worked as Regional Manager in the Northwest region of NSW for the non-government environment organisation Greening Australia. From doing basic agricultural extension (that is extending scientific information to farmers) the organisation gradually expanded in the region to employing over 20 people, with projects in farm forestry, conservation on farms, dieback, revegetation, community education and training unemployed youth (Curtis, 2000, 2001). The arts were included into the extension practice, by Curtis and the regional staff, often as part of key events, and included:

- the use of landscape pictures to articulate different scenarios for landscapes and teach about farm planning. These included Rob Youl's landscape scenarios (Campbell *et al.*, 1988) and paintings by local artist Fay Porter on blinds which could be used at workshops (Figure 6.2 – right);
- the creation of the 'Amazing Maze' with about 20 artists, which was used at the first National Treefest (Anon, 1992) and other events (Figure 6.2 – right);
- the incorporation of art, models, graphics, and songs into presentations;
- assisting with the the arts program associated with the 'After Dieback' Conference in Orange in 1995 (Kater, 1995) which incorporated performances, a commissioned art work from Tex Skewthorpe and an art exhibition by Leah McKinnon;
- the development of images to summarise themes, such as the 'Nova-anglica' image and assistance in the creation of the event *Nova-anglica: The Web of Our Endeavours* (Section 6.5);
- production of greetings cards, merit certificates, and posters which incorporated art;
- using art and performance in the facilitation process;
- using botanical illustrators and graphic artists in the production of publications;
- incorporating crafted wood furniture into the office;
- incorporating art in environmental education in primary school lessons;
- incorporating art and performance into planning activities;
- association with the band *Tre los Lantana* which performed cabarets which dealt with Landcare related issues such as weeds, dieback, catchment protection and pollution (Everett *et al.*, 2004) (Figure 6.2 – left);
- performances at key events and field days such as *Digby Dieback versus Theresa Green* performed at the First National Treefest in 1992, and *Dazed by Dieback* performed at the 'After Dieback' Conference and *Nova-anglica* (Figure 6.1) (Curtis & Curtis, 2004).

Participant observations revealed that incorporating the arts had several effects in the extension context, including the synthesising of ideas, the creation of memorable moments, providing an artistic voice to those working on environmental problems, and adding to the celebratory atmosphere at particular events, as well as conveying ecological messages to the community (Curtis *et al.*, 1999).



Figure 6.1: Visual and performing arts incorporated into extension practice, by Northwest regional operation of Greening Australia NSW. *Digby Dieback meets Theresa Green*. 'Paddock' theatre at the first national Treefest, Kentucky New South Wales 1992, with Fran Curtis as Theresa Green, John Lewis as Digby Dieback and David Curtis as the Spruiker. Photo: Greening Australia.



Figure 6.2: Visual and performing arts incorporated into extension practice, by Northwest regional operation of Greening Australia. NSW.

Left: Autumn Festival Parade, Armidale (1999) with solar powered amplifier. The band *Tre Los Lantana* accompanied the float of the combined environment groups including Greening Australia and The Armidale Tree Group, who had a large snake-like float representing wildlife corridors. Photo: Greening Australia.

Right: Visual arts used in *Amazing Maze* (section by Martin Gash), blinds and Merit Certificates (by Fay Porter), and *Nova-anglica* images and greeting cards (by Anna Curtis).

6.3 Arts in extension: Bungawalbin Wetlands Festival

The Bungawalbin Wetlands Festival took place at the Yarrungully Nature Reserve near the rural city of Lismore on the North Coast of NSW in September 2003. Its aim was to promote the value of wetlands. The festival was organised by the Bungawalbin Catchment Management Group which works to conserve the Bungawalbin Wetlands which form the lower part of the Richmond River catchment. Biodiversity in the catchment is one of the highest in Australia, surpassed only by Far North Queensland and its wetlands are listed in the Directory of Important Wetlands in Australia. The day-long festival included the visual and performing arts to heighten the experience of visitors. The organising committee hoped that the arts components would assist in attracting visitors (particularly farmers) to the wetlands, would help to celebrate the wetlands, move the emotions, create awareness, and assist in helping people to have fun on the day. The festival occurred on a site near riverine and wetland environments, surrounded by bushland. The time of year that was selected was reliably dry to maximise people's access to the area, although the dry conditions limited people's exposure to some wetland species.

In a welcoming ceremony, speeches were made by the Catchment Management Coordinator, a representative of the traditional owners, the previous owner of the site, and an officer from the National Parks and Wildlife Service (NPWS) who had recently taken over management of the reserve. Local indigenous children did a play and dance about the wetlands. The play expressed their emotions about being cut off from the wetlands and the hope for reconciliation and looking after the land. They sang a song to 'sing back' the various animals of the wetlands (Figure 6.3 – top). The group received a grant of \$1,000 from the NSW Arts Council to commission community artist Pamela Denise to make a sculpture of two brolgas at the event. Brolgas are a charismatic water bird of the wetlands and are the logo of the Bungawalbin Catchment Committee. Denise visited three local primary schools beforehand and conducted workshops with the students who made 'feathers' for the sculpture. On the day of the festival a frame made from plastic pipe was constructed and the feathers pinned to it (Figure 6.3 – bottom left). Music was provided by 'Kildare', a duo consisting of guitar/violin and flute. There was also a poetry competition with a wetland theme.

Drawings, colouring-in projects, small sculptures, and poems were done by four local primary schools, most featuring water birds and animals, and were hung in small marquees. Four projects done by year 11 students from Casino High School were displayed. These dealt with wetland vegetation, water quality tests, macro-invertebrate survey, sources of water and changing faces of wetlands. Displays by Wetlands Australia, the NPWS, and the Bungawalbin Catchment Committee, included brochures, photographs, charts and posters. Material focussed on wetlands and riverine ecosystems and how to manage them to sustain their conservation value. There were several talks by experts on various aspects of wetland ecology, including catchment management, birds, wetlands, flora, agriculture, and fish, and there were guided walks of wetlands with interpreters from the NPWS and other experts. People could go on self-guided walks or bicycle rides, or on guided boat rides up Bungawalbin Creek with the Coraki State Emergency Services. The NPWS also organised children's wetland activities (Figure 6.3 – bottom right).

Quantitative data was collected by the organisers. Nine people (seven women and two men) were also interviewed using a standard set of questions to get a more detailed response to the Festival. Four of those interviewed were participants, four were in a Landcare group, seven were in a conservation group, about 60% were rural landholders. Their average age was 47.

About 250 people came to the festival, over a half of whom were adults, a high proportion of which were rural landholders. The art displays and sculpture activities expanded the audience beyond those who came on the day, with a further 300 school children participating. While few people appeared to come to the festival just for the art (about 80% of those interviewed said they would have come regardless of whether or not the arts component was present), many were attracted because it was a festival and a special occasion (44% of those interviewed). Organisers said that a normal farmer field

day on catchment related issues attracted only 6-20 people in the Bungawalbin district. Sixty attendees would have been considered a successful field day and more than 20 farmers would have been considered as 'increasing the audience size'.

The most popular activities were the music, indigenous dancing, and sculpture (Table 6.1). Other popular activities were the guided and self-guided walks and boat rides. The dance and song by the indigenous children provided a vehicle to express sentiments and to build bridges between the black and white communities. It also helped to build the confidence of the children who were nervous about performing. It was rare for them to perform outside their school and to a white audience. Their dance was successful in engaging people's emotions. For the children the dance was not just token but an opportunity for them to reinforce cultural practice and to expand that to a non-aboriginal audience. Other arts activities engaged the emotions (e.g. made people feel happy or moved), in particular the poetry, face painting, and music.

The arts introduced an affirmatory and celebratory component into the occasion and created an atmosphere, which enhanced the experience of the wetlands. The music and performance in particular helped achieve this. The arts also assisted in providing an atmosphere that was conducive for learning, which helped people to take in information and made them feel more involved in the day. Some aspects of the arts program aided in the communication of scientific information and helped increase some people's understanding of the wetlands. The artworks done by the school children enabled them to learn about the importance of the wetlands. Although the arts component may not have increased knowledge much, the event itself did. All of those interviewed had heard about the Bungawalbin Wetlands before they came but about 80% could highlight something new that they had learnt about wetlands.

All of those interviewed appeared to be committed to conserving the wetlands and the event simply reinforced those feelings rather than changed attitudes. Seven out of the nine surveyed did the Environment Protection Agency test for environmental behaviour. The average over all questions was 3.73 out of a possible average of 4, which meant those interviewed were already displaying behaviour sympathetic to environmental sustainability. All of those interviewed felt that the wetlands should be managed sustainably and most of them said they did not feel any differently about the wetlands because of the field day which suggested that they were 'already converted' before they came.

Table 6.1: What people did at the Bungawalbin Wetlands Festival.

	Number of adults	Number of children	Total Number	Liked best by those surveyed
Watch welcoming ceremony	90	30	120	
Participate in welcoming ceremony	4		4	
Participate in Bora Ridge play/acting	1	9	10	
Watch indigenous play/dancing	90	30	120	****
Participate in poetry competition			4	
Listen to poetry entries	90	30	120	
Listen to music	Most attendees			*
Assist build wetland sculpture	20	330	350	
See wetlands sculpture	Most attendees			*
Participate in wetland art displays	0	215	215	
Look at wetland art displays	Approx. 50			
Participate in Senior Science wetlands projects	0	4	4	
Look at Senior Science projects on wetlands	Approx. 50			
Look at other displays	Approx. 50			
Listen to wetlands talks	20-25	A few	30	
Participate in face painting		Approx 30	30	
Activities in the wetlands				
Guided walks of wetlands				
Wetland Waddle in afternoon (1hr)	5	0	5	
Wetlands/birds walk	11	2	13	
Lagoon walk (2hr)	6	3	9	
Wetland waddle (1hr)	18	6	24	
<i>Total participation in guided walks</i>	<i>40</i>	<i>11</i>	<i>51</i>	**
Self-guided walks and self-guided bike rides	Large proportion of attendees			***
Guided boat rides up Bungawalbin Creek	Approx. 60			*
Children's wetland activities (2hr)	4	8	12	
Total number of attendees	135	93	228	

All of those surveyed thought that the arts components made a positive contribution to the event by fostering community interaction and involvement, raising awareness, providing a medium for children to express what they saw or felt about the wetlands, creating a nice ambience for the event (particularly the music), and in the case of the sculpture visually highlighting aspects of the wetlands.

In this setting the main effect of the arts was probably to reinforce people's pre-existing convictions. The experiential aspects of the event probably had the greatest effect – opening peoples' eyes to the richness of the wetlands. The arts enriched the atmosphere, turning the event into a special occasion and thus possibly allowing it to create a more lasting impression and helping attract a larger level of participation.



Figure 6.3: Bungawalbin Wetland Festival and the inclusion of the visual and performing arts.

Top: Welcoming ceremony, Indigenous children from Coraki present a turtle dance.

Bottom left: Community sculpture of brolgas built at the Bungawalbins Wetland Festival by Pamela Denise and volunteers.

Bottom right: Part of the Bungawalbin Wetlands at Yarringully Nature Reserve on the North Coast of NSW.

6.4 Arts in science communication: visual and performing arts in the Ecological Society of Australia Conference

The 2003 Ecological Society of Australia was held in Armidale NSW. As a particular feature of this conference an arts program was included. Visual arts components included a specially commissioned conference image by artist Anna Curtis (Figure 6.4), the creation of special ceramic mugs by Suzanne and Rick Hatch, artists in residence (lino-print artist Anna Curtis and fabric artist Jenny Evelyn), installations and art works highlighting ecological themes by several local artists, and art gallery tours featuring exhibitions with an ecological theme. The performing arts program opened with a ceremony which featured the local indigenous didgeridoo player Duan Pittman, local dance group *Body Moves* and Armidale Sing NSW choir accompanied by the band *Sirocco* performing evocative works of the Australian landscape and ecosystems. Duan Pittman told indigenous ecological stories accompanied by didgeridoo, and eco-band *Tre Los Lantana* entertained the delegates at the conference dinner with a cabaret show which commented on some of the issues raised during the conference. Insights on this case study were gained through a survey of conference delegates and participant observations.



Figure 6.4: Arts program of Ecological Society Conference, Armidale 2003. Commissioned image by Anna Curtis *In the Balance* summarising the themes of the conference. Image: Anna Curtis. Lino reduction print on paper, 30 x 30 cm, 2003.

Theatrical performances were scattered throughout the conference. They featured the *Armidale High School Performing Group* whose performances included virtuoso juggling, unicycle riding, physical skills, comedy, and dance (Figure 6.5). Dieback was explained through a juggling act. Landscape planning to incorporate conservation was presented using narrative sketch theatre. Ecological principals such as balances and cycles were presented through an 'ecological circus', and woodland decline and regeneration processes were theatricalised by changing an auditorium installation after each speaker to reflect the content of the papers being presented.



Figure 6.5: Arts program of Ecological Society Conference, Armidale 2003. Armidale High School Performing Group.

Left: Armidale High School Performing Group, L-R Brendan Hatte, Ben Coleman, Rachel Goldsworthy, Vaughan Curtis, Angie Torbay, Robin Curtis.

Right: 'Barry Fay and Warren Streuth' present a theatrical 'paper' in the symposium: Managing profitable and biodiverse production systems. Photo Laszlo Szabo.

A survey of 239 of the 500 people who attended the conference revealed that the arts program received excellent reviews with 86% of respondents indicating that they found some parts of the program entertaining (Ballard, 2003, 2004, Table 6.2), and most parts of the arts program were well received (Table 6.4). Around a half of respondents said that the Arts Program encouraged them to reflect on alternative ways to communicate science, helped to provide a conducive environment to receive information, helped people to understand complex scientific information, and assist in conference processes. However only about a fifth of respondents said that they would consider using the arts in conjunction with their work in the future (Table 6.2).

Table 6.2: Survey of people who attended the Ecology Society of Australia Conference 2003, in Armidale NSW (from Ballard 2004).

	Yes	No	Unsure	No response
Did some elements of the Arts Program encourage you to reflect on alternative ways to communicate science?	55.2	31.8	10.5	2.5
Did some elements of the Arts Program help to provide a conducive environment to receive information?	49.8	23.4	24.3	2.5
Did some elements of the Arts Program convince you that the Arts have a role in helping people understand complex scientific information?	51.5	29.7	16.3	2.5
Did you find some parts of the Arts program entertaining?	86.2	6.7	3.8	3.4
Did some elements of the Arts program assist in conference processes such as helping you to identify the conference precinct?	46.9	29.7	20.5	2.9
Would you consider using the Arts in conjunction with your work in the future?	23.9	53.6	18.4	4.2

Table 6.3: Survey of people who attended the Ecology Society of Australia Conference 2003, in Armidale NSW (from (Ballard, 2003). Responses to the Question: ‘Would you consider using the Arts in conjunction with your work in the future, how might you do this?’ 115 attendees answered this question (48% of respondents).

Method of using the Arts	% of respondents that chose this option
As an alternative communication medium	26
To provide a conducive environment for receiving information	18
To aid understanding of scientific information	24
To entertain at a conference or in association with a presentation	27
To facilitate processes such as getting people’s attention or conveying key non-scientific information	28
None of these	2
No response	52

Table 6.4: Survey of people who attended the Ecology Society of Australia Conference 2003, in Armidale NSW (from Ballard, 2003). Arts Program rankings (%) (based on attendees views of how positive each aspect was for the conference).

	Positive	Neutral	Negative	Unsure	No response
Conference image	72.80	12.55	2.93	0.42	11.30
Conference opening	68.20	11.72	2.51	4.18	13.39
Performance group	63.18	16.32	4.18	3.77	12.55
BBQ	53.14	18.83	4.18	11.30	12.55
Cabaret/conference dinner	28.97	16.74	7.11	25.10	22.18
Art gallery tour	3.35	6.28	1.26	59.00	30.13
Art works in Lecture theatres	53.56	15.90	2.51	9.62	18.41
Closing performance	42.26	2.51	0.00	12.97	42.26

6.5 Arts in large community events: Nova-anglica: the web of our endeavours

Nova anglica: the web of our endeavours took place in Armidale NSW in March 1998. It was a series of arts and entertainment events held in the Armidale area over a month. It told the story of the devastation of dieback, when millions of rural trees died in the 1970s in the New England region of NSW (Heatwole & Lowman, 1986; Nadolny, 1984). It celebrated the ongoing efforts by farmers, community groups, government departments and individuals to repair the land and to integrate nature conservation with farming (Dunsford & Curtis, 1998; MacKinnon, 1998). The insights from this case study were largely gained through participant observations.

‘Nova-anglica’ means New England and ‘Web of our Endeavours’ symbolised the network of environmental repair activities throughout the region. A focal exhibition took place at the New England Regional Art Museum in Armidale over 3 weeks. Most of the museum was filled with installations to show the ecology of the region, dieback and tree decline, and community and individual actions to repair the environment. Over 2,000 people were physically involved in the event and over 5,000 people attended, from a rural city and surrounding shire of about 24,000 people.

The event grew from an initiative by local artist and active Landcare member, Leah McKinnon. In mid-1997 she decided to present to the public the 62 maps developed by Kath Wray and the Citizens Wildlife Corridors Group (a community group of 800 landholders who had agreed to conserve corridors of natural vegetation throughout their properties). The maps showed the properties involved in the corridor group and were a representation of the network of landholders interested in nature conservation on their properties. From this initial idea grew an event which also celebrated the broader environmental repair initiatives at the regional level. The event adopted an image developed by Curtis *et al.* (1995) and rendered by artist Anna Curtis, which summarised the themes of the event (Figure 6.6).

Working with the community-based environmental organizations Landcare and Greening Australia, McKinnon formed an organising committee of artists, farmers, landcarers, nurserymen, and Greening Australia, Landcare and departmental staff. This committee was assisted by a larger group of farmers, artists, musicians, writers, educators, community groups, government extension officers, scientists, interpreters, tree growers and people with finance and media skills. A team of volunteer interpreters were trained and made available to the general public and school groups every day of the event. Many of these people were recruited from the pool of volunteer guides at the Art Museum.

The exhibition venue consisted of seven exhibition spaces including a courtyard area, a foyer area, map room, dieback area, cafe, creeklands area and a ‘treasure room’. *Nova anglica: the web of our endeavours* and its associated events incorporated many forms of the visual and performing arts, including paintings, photography, drawings, wood carvings, ceramics, floral art, stories, poetry, songs, music, a colouring-in competition, embroideries, sculptures, installations, collages, and musical cabaret. The event was launched with a ceremony featuring a lantern parade and music. Artwork summarising environmental themes was incorporated into postcards, greeting cards, posters, mugs, pots and prints. Public educational activities associated with the event included tours and demonstrations and a public lecture by author Mary White on the geological history of Australia and its history of land degradation (Figure 6.7).

Throughout the event a broad cross section of people was involved. A richness of ideas emerged from brainstorming at planning breakfasts that tapped into the creative talents of many people. Visual and performing arts were incorporated into meetings to facilitate this. New networks of understanding were formed, as people who might not normally work together such as artists, farmers and scientists collaborated for the event.

Nova-anglica offered farmers, scientists, government workers and others involved in landscape change, new and creative ways of expressing their feelings for, and knowledge about the land and the natural environment. Participants were able to tap into their expressive sides and describe their involvement

with the environment and their farms using stories, paintings, photography, sculpture and poetry. For some participants this creativity flowed back into their work in the community. The event affirmed people's beliefs in caring for the environment and celebrated the work they did to repair the environment. It provided a vehicle for community education, information transfer and networking. By linking the environmental educative elements with the arts it led people to have a heightened sensibility for the topics, and even more importantly to associate the environment with positive thoughts and images. The diversity of methods used meant that the themes of *Nova-anglica* could be understood and accessed by a range of visitors.

The event exposed its audience to environmental issues and it enabled a broad participation by a cross-section of the community for people to work together for environmental change. Organisers hoped that visitors would leave having discovered a different view of nature conservation and how it related to farming. The number of interpretive and educative techniques adopted and the vast numbers of people involved in the event made it a diverse and dynamic project for the community. This was the result of input from many individuals with an interest in the environment. Its success owed much to the strong foundation of pre-existing networks of people in the community who were eager for an opportunity to celebrate efforts in land repair. Furthermore incorporating music and art forms into the planning meetings improved processes by helping find new ways of looking at a problem, stimulating creative thinking, motivating participants and helping improve the cohesiveness of the group.



Figure 6.6: *Nova-anglica' The Web of Our Endeavours*. Image summarising the themes of the event, exhibitions and performances. Image Anna Curtis.

This picture takes its name from the New England region of NSW. The image combines several themes:

- the geographic layout of the New England region;
- the network of development (roads, agriculture, development etc.);
- the network of ecological communities (represented by three species that are endemic to the region the New England Peppermint – *Eucalyptus nova anglica*), the New England Tea Tree – *Leptospermum novae angliae*, and the New England form of the Hairpin Banksia – *Banksia spinilosa* variety *neoanglica*);
- the impact of dieback; and
- the network of people and groups involved, in environmental repair (symbolised by the network of leaves). New England Peppermint is the most heavily affected tree by New England Dieback. Its main strategy against leaf eating insects seems to be regrowth and regenerate. It can thus symbolise the community's response to land degradation.

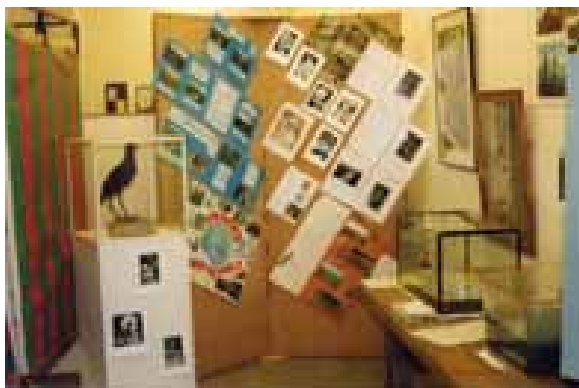


Figure 6.7: *Nova-anglica' The Web of Our Endeavours* – displays and performances. (Photos Greening Australia).

Top left: Part of an installation at the *Nova-anglica: Web of our endeavours* event which included art works, displays by scientists, stories from farmers about their landcare work, exhibits of extinct fauna.

Top right: Some of the leaves made by school children in different materials as well as woodwork made by artists from local timbers, at the *Nova-anglica: Web of our endeavours* event.

Bottom: Dinner Debate and Cabaret at the *Nova-anglica: Web of our endeavours* event: Barry, Fay and Warren Streuth, Environmental Detectives explore whether nature conservation had a role to play on farms. L-R Penny McCue (Narrator), Maureen O'Keeffe (Fay), Mike O'Keeffe (Barry), Andrew McCue (Warren).

6.6 Arts in large community events: Gunnedah *Two Rivers Festival*

The Liverpool Plains is one of the richest farming areas in Australia – a landscape of great productivity and great aesthetic beauty. Its large cropping vistas backed by ranges of purple hills were immortalised by the local poet Dorothea Mackellar in her poem *My Country* (Mackellar, 1885-1968). A selection of brochures from the Department of Infrastructure, Planning and Natural Resources speak of a huge rise in soil salinity in both urban and rural parts of the district and the decline in quality of the main river (the Namoi) with unacceptably high levels of agricultural chemicals, salt, and turbidity. A recent audit of the Murray River found that the Namoi was expected to become highly significant in terms of salt additions to the Murray Darling river system (Murray Darling Basin Ministerial Council, 1999) and is considered by the NSW government to be a highly stressed river. The catchment plans for the Northern Tablelands and the North West Slopes and Plains identify several environmental issues which present themselves as severe challenges to the community, including soil salinity, soil erosion, loss of biodiversity, water quality problems, decline in groundwater, poorly managed waste, weeds and pests (Roberts & Holmes, 1999). A different form of eucalypt dieback is also devastating large populations of eucalypts through much of the Liverpool Plains (N. Reid *et al.*, 2002).

The Two Rivers Festival celebrates the riverine environment of the Mooki and Namoi Rivers which merge near Gunnedah and their ecology and the human relationship with them. This festival incorporates circus, fire art, lantern parades, shadow puppetry, an art exhibition, photography exhibition, poetry competition and various performances. Contact was established with the festival organiser (Susan Wilson), and the festival was the subject of study between 2002 and 2004. The art forms incorporated into the Festivals during the study period are summarised in Table 6.5. The evaluation of this case study is still in progress and involves focus group interviews, surveys, Key Informant interviews, and participant observations.

Table 6.5: Art forms from the 2003-2004 *Two Rivers Festivals*.

Performance and processions (music, art and theatre combined, circus)
Fine art: paintings, sculptures, photography, glassware, jewellery, performance art, video and digital art
Music/songs – classical and country and western, rock/pop, jazz, opera
Exhibitions and displays
Story telling/aural history
Competitions: busking, poetry, photography
Comedy debates

Lantern parade and circus performance

The Festival features a lantern parade and circus performance. This is an evolving event, and each year gets bigger and more ambitious. *The Lismore Lantern Makers* came from their base in Lismore and work with school children to construct lanterns. The local circus, based at Gunnedah High School developed shows especially for each event. Performers from *Circus Works* in Sydney came and worked with the children to develop the shows and to perform with them (Figure 6.8). In 2003 the show was called *On the Way to the Top*. In 2004 the show was called *Reflections of the River* and was based on a story by local Indigenous elder, Ellen Draper. It featured Indigenous dancing, acrobatics, shadow puppetry, aerial acts, choirs, and participation by several community groups.



Figure 6.8: (left) Lantern parade and (right) performance of *Reflections of the River* at *Two Rivers Festival*, Gunnedah NSW. 2004.

Field studies exhibition: On Common Ground

A group of 17 artists travelled from the Canberra School of Art (Australian National University) and resided in the district for two weeks in April and June 2004. They met with a range of people in the district, including Indigenous people, experts in salinity, soils, vegetation, catchment protection, landholders, artists and others, and explored different parts of the landscape from the air and on the ground. They developed a body of fine art as a response to the landscape which was exhibited in a non-conventional space (a shop front in the main street of Gunnedah) at the 2004 Two Rivers Festival (Figure 6.9; Reid, 2004). This event was organised by John Reid of the School of Art. It aimed to show the role of the arts in stimulating ideas and provoking change. The Field Studies Program at the Canberra School of Art exposes students to other roles that artists can play in the community (Reid, 2002). These include securing the cultural record of people's lives, and boosting community morale, especially when they aesthetically document matters that cause stress. The students also learn that they can make an important contribution to community debate about a desirable future. 'The arts can pitch to the emotions as well as the intellect and in so doing cut through the eight of prosaic detail that tends to overwhelm us in daily life. In its various forms art can help elucidate what is of value' (Reid, 2002).



Figure 6.9: *On Common Ground*, exhibition by students and staff of the Canberra School of Art, ANU, at *Two Rivers Festival*, Gunnedah, October 2004.

Commissioned art works

A group of artworks were commissioned by the project from local artist Maree Kelly (Figure 6.10). She worked with local scientists to develop visual artworks which communicated how the landscape has changed in the last 200 years and to visually articulate possible scenarios for the future, including a landscape ideal which incorporated environmental and ecological sustainability into this highly productive landscape. It was intended that these artworks would then hang in the local art gallery and would be used in an education and extension setting to articulate best practices for catchment protection.

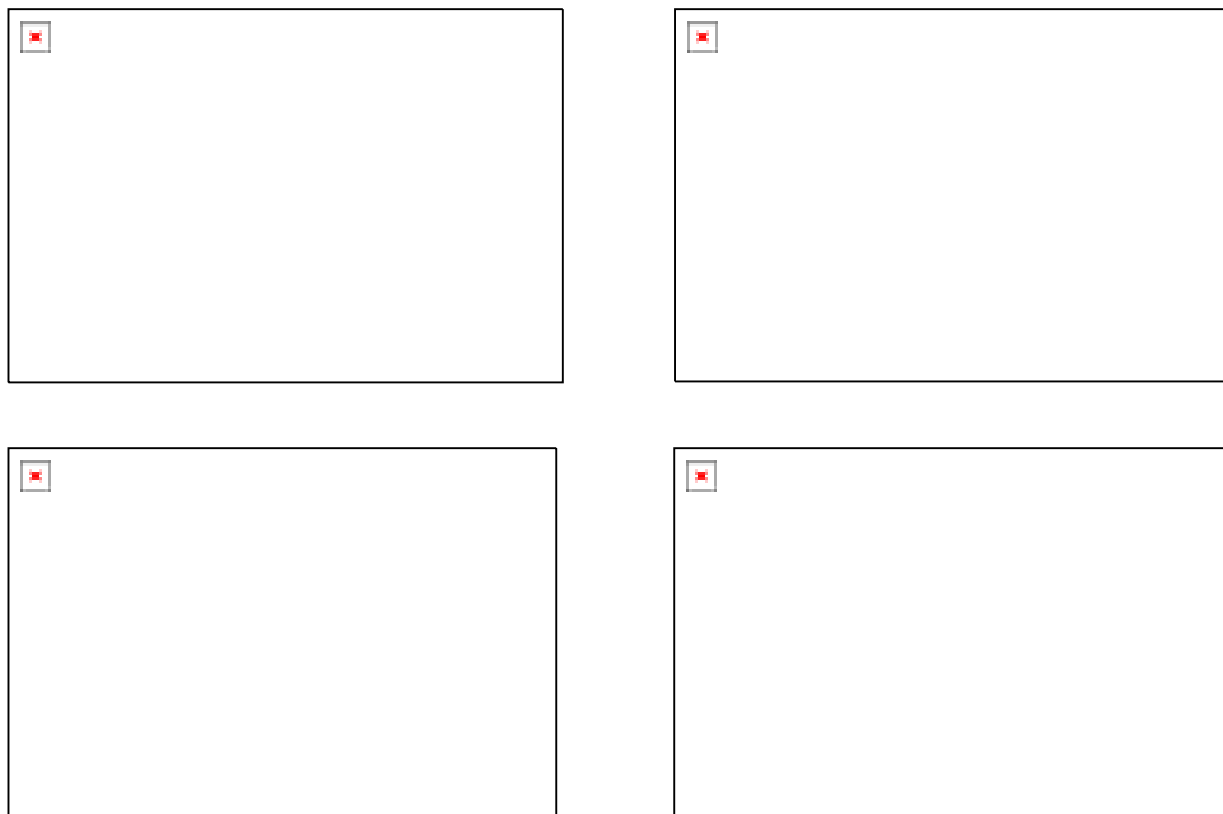


Figure 6.10: *Four Views of the Liverpool Plains* by Maree Kelly, commissioned jointly by UNE, RIRDC and LWA for the Gunnedah *Two Rivers Festival*, 2004. Four views of the Liverpool Plain under different scenarios.

Top left: 200 years ago.

Top right: Today.

Bottom left: If land degradation worsened.

Bottom right: Possible scenario for the future. Images: Maree Kelly

6.7 Large-scale Performances: *The Plague and the Moonflower* – an ecological chorale

The Plague and the Moonflower is a composition for choir, solo guitar and orchestra by Ralph Steadman and Richard Harvey. It explores the dark side of humanity through the character of Plague. Its theme is the struggle for the survival of our planet in the face of apathy, pollution and greed. It is, however, celebratory when Plague is transformed through his encounter with the Moonflower, and through his transformation pledges to provide a future for the child (and hence future generations). It is the discovery of the rare Moonflower by the botanical artist Margaret Mee that provides the inspirational aspects of the work. The Moonflower is a rare epiphytic cactus that grows in the Amazon rainforest. It only flowers under a full moon for a few hours, emitting a beautiful perfume while it flowers (Mee & Morrison, 1988).

The city of Armidale boasts a strong tradition of the arts, having been the state's Third City for the Arts, and supports and nurtures a strong music and theatre culture. In 2002, local medical practitioner and part-time French horn player and conductor, Bruce Menzies, heard the superb music of *The Plague and the Moonflower* by chance, and put together a production team and 170 performers and crew to perform the work in Armidale in October 2002 (Curtis, 2003a). It had never before been performed outside Britain and the production was hailed locally as 'possibly the most significant musical/theatrical event of Armidale's past two decades' (Bill Driscoll, *Armidale Express*, 1 November 2002, p. 8).

A year later the production was transported by bus to the Woodford Folk Festival, appearing twice as one of the main amphitheatre acts (Curtis, 2004). The festival attracted over 100,000 people over several days and over 500 acts, and the production was hailed by the festival director as the festival's highlight (letter from Bill Hauritz, 14 January 2004). The production team had been expanded and the cast had grown to over 250 people, including an adult choir, children's choir, orchestra, dancers (including Indigenous dancers), jugglers, actors, and support crew. The production had been redesigned, major props and theatrical elements had been built, costumes redesigned and made for the entire cast and crew, and an efficient organisation established to administer and organise the transport and campsite accommodation of over 300 people. To add to the complexity another performance was held in Armidale before transporting the production to Woodford (Figure 6.13).

The first Armidale production added strong theatrical elements, projections, dancers, jugglers and acrobats to the original English production and these elements were expanded upon for the Woodford production (Moonflower Tour, 2005). The incorporation of the didgeridoo into the orchestra and the cleansing and farewell ritual performed by Indigenous dancers provided the work with special significance for an Australian audience.

Results from *The Plague and the Moonflower*

Eighteen semi-structured interviews and one focus group of 11 people were conducted after the 2002 performances. 17 semi-structured interviews, 2 focus groups of 13 people (in total), and a survey of 100 participants and 70 audience member were conducted after the 2003 concerts.

The concerts were a success artistically and financially. Both concerts in the original Armidale production were virtually full-houses, with about 1,000 attending. The subsequent Armidale performance attracted an audience of over 700 and the Woodford audiences over the two shows totalled an estimated 10,000.

People went to the production of *The Plague and the Moonflower*, or participated in it, for a range of reasons. The majority of respondents went for reasons other than the environmental message of the work – attracted to the music, the spectacle, or (in the case of many participants) simply invited to be part of it. Even so, the environmental message was a draw-card for some respondents, with 12% saying

they were drawn specifically to the environmental message, and 40% saying that they were attracted to the combination of music/theatre, and the environmental message.

The overall responses of people to the production are summarised in Table 6.6. People were generally very positive about the different aspects of the production. The production had a strong effect in engendering an appreciation and pride of community. The project provided an opportunity for substantial community involvement, networking, meeting new people, working with people one already knew, the building of bridges between different groups within the community, and the strengthening of bonds. The bridging elements of the production were emphasised by many participants in interviews, and in particular the coming together of Indigenous and Non-indigenous performers was considered very positively.

Table 6.6: Combined responses of all respondents to the production. Percentage scores is of the total after missing values are excluded (2-6 people).

Responses to the production	Number	Negative to neutral response (score 1-3) Valid % of all respondents	Positive response (score 4-5) Valid % of all respondents
Music	168	6.5	93.5
Words	164	34.8	65.2
Visuals	164	26.8	73.2
Dance	164	19.5	80.5
Spectacle	164	13.4	86.6
Community involvement (Armidale audience and participants only)	102	6.9	93.1
Combination of all elements	167	13.2	86.8
Message of the work (Woodford audience only)	65	33.8	66.2

The music itself, and the high degree of community involvement received the most favourable response, and the words received the least positive. This was probably because of the difficulty of making out the words sung by a choir, and the unfamiliarity of people with the work. The interviews showed that people became more positive towards the words as they became more familiar with the work. Mostly there were no significant relationships found between the various groups and how they responded to the different aspects of the production.

The responses to the work itself, summarised in Table 6.7, suggest that the work succeeded at engaging the emotions, had a strong effect on encouraging people to reflect on humanity’s relationship with the natural environment, and engendered strong feelings towards the natural environment.

Changing environmental behaviour

Increasing the audience size to an environmental message

The case study demonstrated convincingly the capacity of the arts to increase the audience for environmental information. It is likely that over 10,000 people saw this production and thousands more were exposed to messages of the production through seeing reports in the local and national media, seeing the Plague Demon in the 2004 Autumn Parade and a shop installation in Armidale, and the entry of props from the production into a regional ‘waste-art’ competition. Audience members were often ordinary concert goers or were there because they knew people in the production, and not because of the environmental message. Participants too were mostly there because they were normal members of the orchestra or choirs, or were invited.

Table 6.7: Combined responses of all respondents to the work. Percentage scores is of the total after missing values are excluded (2-6 people).

Responses to the production	Number	Negative to neutral response (score 1-3) Valid % of all respondents	Positive response (score 4-5) Valid % of all respondents
Moved me emotionally	169	26.6	73.4
Made me reflect on humanity’s relationship with the environment	168	26.2	73.8
Made me feel strongly towards the natural environment	168	40.5	59.5
Made me feel an appreciation and pride in community	169	19.5	80.5
Exposed me to ideas I had not thought of much before	167	69.5	30.5
Affirmed my beliefs about people’s relationship with the natural environment	167	41.3	58.7
* Allowed me to express my feelings for people’s relationships with the natural environment	98	50.0	50.0
* Allowed me to strengthen my beliefs about certain issues	98	46.9	53.1
* Allowed me to learn about some environmental issues	96	57.3	42.7
* I enjoyed being part of a large team working together	98	6.1	93.9

Effects on environmental behaviour

The Plague and the Moonflower is not a work that lays out a program for action. Instead it seeks to engender respect and appreciation of the natural environment and is critical of the destruction of nature by modern industrialized societies. It is an expressionistic/emotional piece that operates mostly on the heart, attempting to move the emotions into a love of the natural environment and a repugnance at what industrialized societies are doing to it. Primarily it is asking us to ponder what legacy are we leaving for our children, which is very much in the realm of eco-ethics articulated by Kinne (2002). Because of this it could be expected that it might not lead to an immediate behavioural change. However the results showed that it did have a marked effect on people’s intention to change.

Respondents were asked whether participating in or seeing the production made them feel like doing something different for the environment (Table 6.8). By combining the ‘Yes’ and ‘A bit’ responses it appears that about two-thirds (67%) of respondents said the production made them feel like changing their behaviour to some extent. Forty-three percent of respondents listed things that they would do

differently, such as not using plastic shopping bags, recycling more, reduce waste and pollution, planting trees, saving water, joining or donating money to community groups, using the arts to raise environmental awareness, practice organic gardening, or by ‘spreading the word’, or in the case of one child – cleaning up her room!

Table 6.8: How the production of *The Plague and the Moonflower* affected people's environmental behaviour.

Did the production make you want to do something different for the environment?	Number	% of all respondents
Yes	62	36.5
No	35	20.6
A Bit	52	30.6
Unsure	16	9.4
Not answered	5	2.9
People who listed things they would do differently	73	42.9

But did the event actually make people change their behaviour towards the environment? It may well have succeeded in doing this, but because the interviews were done very soon after the event, it was hard to discern. Not enough respondents provided their contact detail for a follow up interview 12 months after the event, therefore a judgement on actual behavioural change has to be determined from the interviews that were done soon after or during the event. Certainly, some responses from participants indicated that the event was a pivotal moment in their lives. In others we suspect that that the event will open their minds to information that they receive at a later time.

Exploratory discriminant analysis was used to examine the relationship between the four groups of respondents defined by their response to the question as to whether they felt after the performance they wanted to do something different for the environment (DODIFFER), and other possible explanatory variables such as people’s age (AGE), gender (GENDER: 1-male, 2-female), their evaluation of the performance and the extent to which they undertook various environmentally friendly behaviours.

Evaluation of the performance was elicited through two questions. The first asked how positive or negative people felt on a scale of 1 to 5 (1-very negative, 3-neutral and 5-very positive) about the following aspects of the production: the music (FELTMUSI), the words (FELTWORD), the visuals (FELTVISU), the dancing (FELTDANC), the spectacle (FELTSPEC) and the combination of all the elements (FELTCOMB). The second comprised six attitude statements about the work itself, coded 1-strongly disagree, 2-disagree, 3-neither agree nor disagree, 4-agree, 5-strongly agree. These are listed in Table 6.9 and indicated by a mnemonic with the prefix WORK.

A number of environmental behaviour items were also included, which were taken from a repeated cross-sectional survey run by the then New South Wales Environmental Protection Authority (1994, 1997, 2000) and the New South Wales Department of Environment and Conservation (2003). These items elicited the frequency with which respondents had undertaken a range of environmentally friendly behaviours. A measure of environmentally friendly behaviour (NEENBEHA) was constructed by taking the mean of 11 items covering such behaviours as re-using rather than discarding, avoiding plastic bags, composting food and garden refuse, avoiding packaging when shopping, chosen products thought to be better for the environment, reducing water consumption, reducing energy consumption by turning off lights and using appliances more efficiently, purchasing energy efficient appliances, reducing fuel consumption, seeking information relevant to protecting the environment and participating in local development or environmental issues. For respondents under 18 years of age three items were excluded from the calculation of the measure of environmentally friendly behaviour. These were for behaviours which it could not reasonably be expected of people of that age: purchasing energy efficient appliances, reducing fuel consumption and participating in local development or environmental issues.

Exploratory discriminant analysis identified two significant dimensions (discriminant functions) among the explanatory variables. The first dimension was strongly related to several of the attitude statements: whether the work made the respondent feel strongly towards the natural environment, whether the work made the respondent reflect on humanity’s relationship with the natural environment and whether the respondent was moved emotionally by the work. The second dimension was largely related to the score on the measure of environmentally friendly behaviour. The full structure matrix of the correlations between explanatory variables and the first two discriminant functions is shown in Table 6.9.

The position of the four respondent groups, defined by their response to the question as to whether they felt after the performance they wanted to do something different for the environment, in the space defined by the first two discriminant functions is shown in Figure 6.11.

Table 6.9: Structure matrix of correlations between explanatory variables and the first two discriminant functions.

Statement	Mnemonic	Discriminant function	
		1	2
The work made me feel strongly towards the natural environment	WORKENVI	.840	-.105
The work made me reflect on humanity’s relationship with the natural environment	WORKREFL	.632	-.052
The work affirmed my beliefs about humanity’s relationship with the natural environment	WORKAFFI	.594	-.224
The work made me feel an appreciation and pride in community	WORKCOMM	.555	.269
The work moved me emotionally	WORKEMOT	.499	.102
Felt about combination of elements	FELTCOMB	.446	.199
Felt about words	FELTWORD	.436	-.057
Felt about visuals	FELTVISU	.341	.067
Felt about spectacle	FELTSPEC	.309	.004
Measure of environmental behaviour	NEENBEHA	.133	.507
The work exposed me to ideas that I may not have thought much about before	WORKEXPO	.261	-.354
Gender	GENDER	.197	-.341
Felt about the dance	FELTDANC	.198	-.254
Felt about the music	FELTMUSI	.183	-.014
Age	AGE	.023	.343

The circle representing the position of each respondent group is divided into a pie chart representing the proportions of audience and participants in each group. The figure and structure matrix suggest a number of possibilities about the relationship between existing environmentally friendly behaviour, reactions to the performance and intentions about further environmental behaviour.

Firstly, the correlations in the structure matrix suggest that positive or negative reactions to aspects of the performance are only weakly correlated with the first discriminant function. In comparison, the level of agreement with statements that the performance engendered strong feelings for the environment and reflection on, and affirmation of, beliefs about the relationship between humanity and the environment, was strongly correlated with the first discriminant function. Those who stated they would do something different for the environment as a consequence of the performance are associated with high values of the first discriminant function, i.e. they tended to be those in whom the performance engendered strong

feelings and reflection about the environment. This group contained a preponderance of participants. On the other hand, those who disagreed that the performance had engendered strong feelings about the environment tended to deny that they would do anything different for the environment. This group contained a preponderance of audience members.

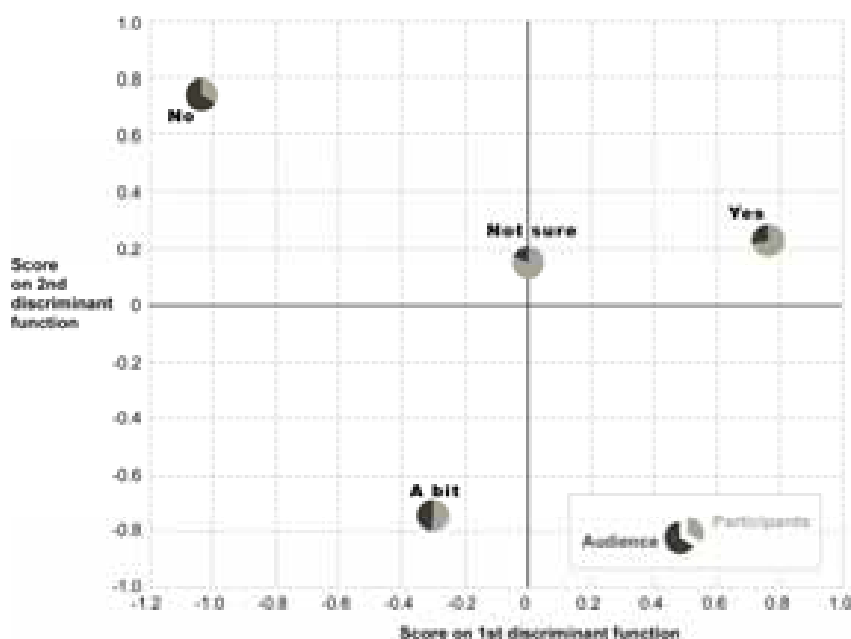


Figure 6.11: Mean scores on the two discriminant functions for the four respondent groups, defined by their response to the question as to whether they felt after the performance they wanted to do something different for the environment.

These relationships were confirmed by chi-square tests of independence of factors. For example, there was a significant relationship between DODIFFER and WORKENVI ($\chi^2=39.22$, d.f.=3, $p<0.0005$). Among those who said they would do something different for the environment, 87% agreed or strongly agreed with the statement that the performance engendered strong feelings towards the environment, while for those who said they would not do anything different, only 24% agreed, or strongly agreed, with the same statement. There was also a significant relationship between DODIFFER and WORKREFL ($\chi^2=29.96$, d.f.=3, $p<0.0005$). Among those who said they would do something different for the environment, 94% agreed or strongly agreed with the statement that the performance made them reflect on humanity’s relationship with the environment, while for those who said they would not do anything different, 50% agreed or strongly agreed, with the same statement. These relationships, and a number of the other relatively strong relationships are illustrated in Figure 6.12.

Relationship between DODIFFER and type of respondent was also significant ($\chi^2=17.89$, d.f.=3, $p<0.0005$), with 73% of the group who said they would do something different for the environment being participants, compared to 34% for the group who said they would not do anything.

Secondly, the correlations in the structure matrix suggest that the second discriminant function is most strongly correlated with the measure of environmentally friendly behaviour. This was confirmed by one-way analysis of variance on the measure of environmentally friendly behaviour with DODIFFER as a factor ($F=3.62$, d.f.=3, $p=0.015$). A multiple comparisons test with Bonferroni adjustments to significance levels suggested that the significance of the analysis of variance was largely due to the difference in mean scores on the measure of environmentally friendly behaviour between those who said they would do ‘a bit’ for the environment (2.93) and those who said ‘yes’ to the same question (3.21).

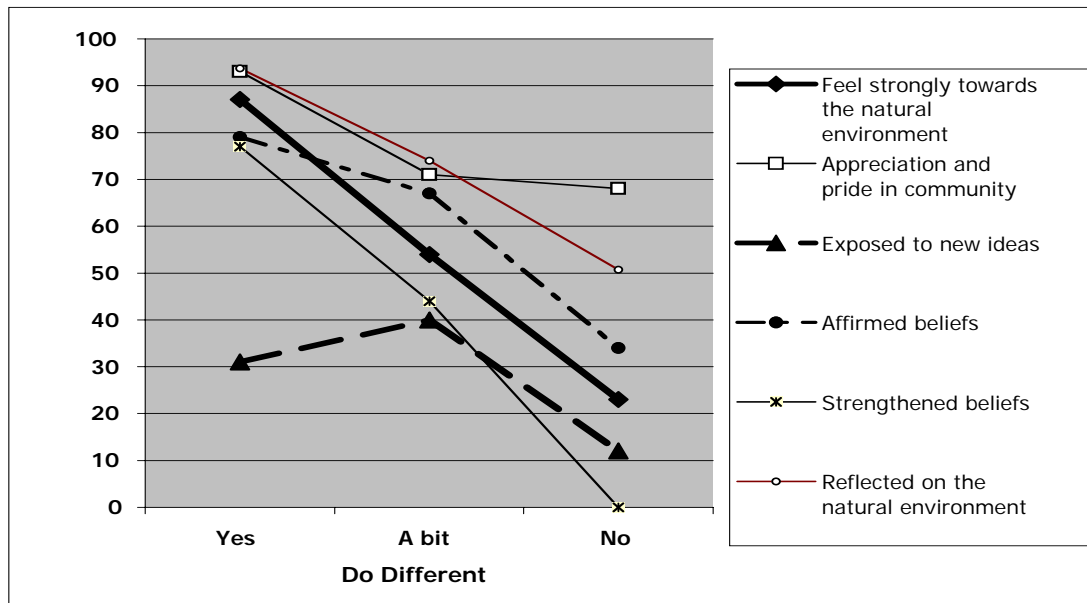


Figure 6.12: How people responded to *The Plague and the Moonflower*, in relation to how they intended to change their behaviour. Respondents were asked whether participating in or seeing the production made them feel like doing something different for the environment and could answer 'Yes', 'No', 'A bit', or 'Unsure'.

It is worth noting that those who said that they would not do anything different for the environment had a relatively high score on the second discriminant function, indicating that they already practiced many environmentally friendly behaviours. Consequently, their denial could be interpreted as a consequence of there being little more they could do, rather an unwillingness to undertake these behaviours.

Thirdly, those who rated the lowest on the second discriminant function were the respondents who indicated they would do a bit for the environment. This group was just in the negative range with respect to the first discriminant function, i.e. neutral or disagreeing that the performance engendered strong feelings toward the environment. This suggests that, among those practicing relatively few environmentally friendly behaviours, the performance may have engendered an intention to practice these behaviours via some influence not covered by the questions in the survey. This group comprised nearly equal proportions of audience members and participants.

Lastly, the 'Unsure' group were centrally placed with respect to both discriminant functions, with the great majority of respondents being participants. This group could reflect those participants who were absorbed by their performance or role in the production and were largely oblivious to the deeper environmental meaning of the performance.

The following conclusions appear to be supported by the survey findings.

Firstly, there are two groups of people who might be expected to adopt additional environmentally friendly behaviours following the staging of a production like *The Plague and the Moonflower*. One group is the performers who are already practicing some such behaviours and for whom the performance engendered strong feelings toward the environment and reflection on humanity's relationship with the environment. The other group is audience members and performers who were practicing fewer environmentally friendly behaviours and appear not to have experienced such strong feelings about the environment, but nonetheless, for some reason not elucidated in the survey, appear to have formed an intention to do a bit more for the environment.

Secondly, there is a section of the audience for productions such as *The Plague and the Moonflower* who are already undertaking many environmentally friendly behaviours, but appear to be relatively unmoved by the production and are unwilling to undertake further environmentally friendly practices.

It might be thought that this group was attracted to the performance more by its environmental message than the music and theatre, but the data from a survey question about reason for attending the performance does not support this. There were relatively few significant relationships between DODIFFER and reasons for coming to Woodford or reasons for attending the performance. There was a significant relationship between DODIFFER and whether people gave 'the combination of the music/theatre and environmental message' as a reason for attending a performance of *The Plague and the Moonflower* ($\chi^2=10.31$, d.f.=3, $p=0.016$). Those who were unwilling to undertake further environmentally friendly practices were least likely to give this reason (23% compared to, for example, those who were willing to undertake further practices at 53%). The same pattern was evident in the significant relationship between DODIFFER and whether people gave "was attracted to its environmental message" as a reason for attending a performance of *The Plague and the Moonflower* ($\chi^2=10.53$, d.f.=3, $p=0.015$). Those who were unwilling to undertake further environmentally friendly practices were also least likely to give this reason (3% compared to, for example, those who were willing to undertake further practices at 23%).

The most popular reason for coming to Woodford given by those who were unwilling to undertake further environmentally friendly practices was the music (65%) and the most popular reason for attending a performance of *The Plague and the Moonflower* was 'the music sounded interesting' (40%).

Overall, the survey findings with respect to this group might be explained by the fact that the Woodford Festival has traditionally had a focus on folk music and environmentally responsible accommodation for those attending. Audience members with an interest in folk music, and who were already practicing many environmentally friendly behaviours, might be expected to be relatively unmoved by an orchestra and choir and to respond to their interviewer that they did not expect to do anything different for the environment.

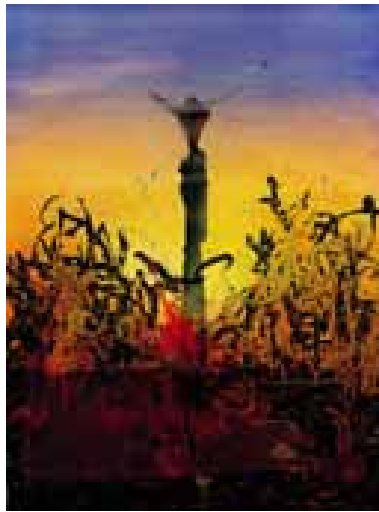


Figure 6.13: Images from *The Plague and Moonflower* case study.

Top: *The Plague Demon* by Ralph Steadman. The Plague Demon represents the side of humanity that destroys the natural environment. Image Ralph Steadman.

Middle left: *The Plague and the Moonflower* at the Woodford Folk Festival, December 2003. The Plague Demon emerges while the child (spot lit) looks on horror-struck. Constructed from 3,000 plastic shopping bags, covering an area 10 m² and rising to a height of 6 metres, the Plague Demon emerged from a pile of rubbish dumped into the festival arena from a garbage truck at the beginning of the performance. Behind it is the Armidale Moonflower orchestra and adult and childrens choirs performing. (Photo: Garry Slocombe)

Middle right: Fran Curtis as the botanical artist Margaret Mee, whose discovery and painting of the rare moonflower on her voyage up the Amazon River at the age of 79 provided the inspiration for the ecological chorale *The Plague and the Moonflower*. (Photo Jim Vicars).

Bottom left: The Moonflower blooms. Dancers, choirs and orchestra from the Armidale Moonflower Tour stage the finale of the ecological chorale *The Plague and the Moonflower* at the Woodford Folk Festival. (Photo Jim Vicars).

Bottom right: The Plague Demon being used as part of the 2004 Armidale Autumn Festival. It was estimated that it contained the equivalent to just 3 hours plastic bag consumption of the city of Armidale. (Photo Garry Slocombe).

Chapter 7: Discussion of results

Artistic work is a powerful influence on our values and can play a very influential role in achieving sustainability. It provokes and stimulates us to think about what really matters in our lives – what we should support or oppose, what is beautiful, abhorrent or special. It causes people to feel passionate, enthusiastic and determined, essential qualities if they are going to be active for the long haul. (Green, 2002)

Whilst the social capital-building role of the arts is well recognised, the arts have been largely under-utilised in expanding the scope of sustainable development to engage the wider community, particularly on issues relating to broad land management questions or urban planning issues. Extension practitioners generally do not utilise the visual and performing arts much to extend an appreciation of catchment and land protection or in promoting environmentally sustainable development. Similarly, in urban centres most arts activity is unrelated to urban environmental issues, and attempts at integrating the arts with urban planning are sporadic. The sustainability discourse is dominated by environmental scientists, sociologists and economists and tends to overlook the role that the arts might play in ecologically sustainable development.

The research has concluded that there are three main pathways along which the arts can help shape behaviours that are more environmentally sustainable (Figure 5.1). All three pathways are valuable in helping promote environmental sustainability. Elements of the first two pathways, and particularly the second, seem to be more aligned with the green romantic environmental discourse (Dryzek, 1997), and can suffer the fate of being labelled as somewhat peripheral to the ‘hard’ concerns of improving environmental behaviour. We are hypothesising, therefore, that the most effective route for long term and major changes in environmental behaviour is by using the third pathway: embedding the arts in ecologically sustainable economic development itself. This route is positioned within the sustainability and ecologic modernisation environmental discourses (Dryzek, 1997), and is the route which should be examined in more depth in future research, through the use of specific case studies where the arts are embedded in sustainable development.

These three pathways roughly correspond to the three modes of practice of artists within a social-environmental setting, described by Collins (2004). In his model he suggests that there are three basic modes of practice: the critical engagement response (corresponding to the first pathway), the lyrical-creative response (corresponding to the second pathway), and the transformative approach (corresponding with the third pathway (see Figure 7.1).

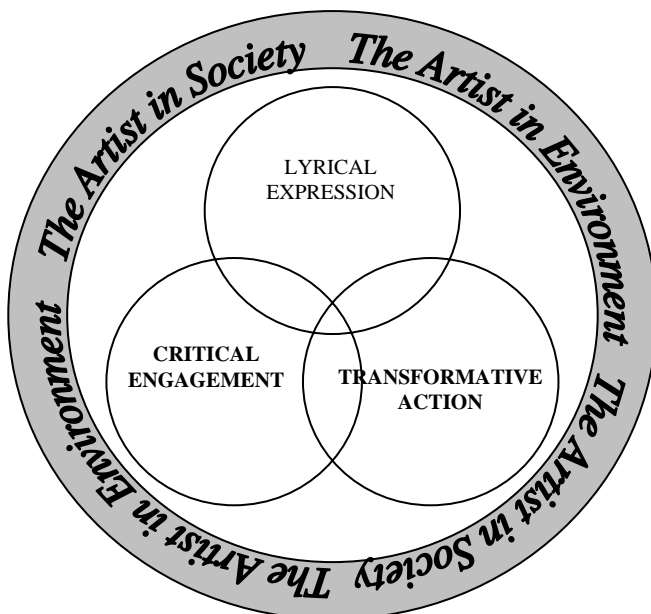


Figure 7.1: A graphic representation of the artists' modes of practice within a social-environmental setting (Image by Goto and Collins). From Collins (2004).

The case studies examined in this study show that the performing arts have an ability to summarise and synthesise a range of ideas, information and symbols which can awaken or rekindle the spirit and affirm one's love and respect for the natural environment. The ability of the arts to create an impact and reach large audiences give them an important role in getting over information and 'creating a memorable moment'. As Tara Ryan of *Evergreen Theatre* said – an extension agent may get an audience of 20 but a theatre group can get an audience of hundreds, or even thousands. Art forms such as theatre can also be used to deliver a message with long-lasting impact. There are increasing numbers of situations where citizens and groups in Australia have promoted nature conservation and environmental protection through the arts, e.g. Downfall Creek Bushland Centre (ca. 2002).

The actual *process* of being involved in a performance or in creating art can help to consolidate one's beliefs or reinforce them, and can be useful in some aspects of influencing environmental behaviour. The act of self-expression is important in people and is the main reason many people create art. In many ways it is the process of creation that is important and not the finished product, for often the final creation is ephemeral. Many of those involved with the community arts emphasise the importance of the process, and many of the examples quoted in this report demonstrate this. American artist/dancer and deep ecologist, Paulus Berensohn suggests that if we are artistic in our lives we start to notice the environment more, and this is vital in developing a caring relationship with it, and that the artist's work is to 'sing up the earth, to praise and thank and to express gratitude' (Berensohn, 2002). The creative urge, or creative sensibility is common to Landcare, environmental restoration and the arts. The actual process of being involved in creating art, and researching and reflecting in the process of its development, can help one develop or consolidate ideas and knowledge about a topic, and this process is not dissimilar to what goes on in many Landcare activities. The act of being involved in performance in one's youth can be seminal and can affect attitudes towards the environment for a lifetime (Curtis & Curtis, 2004).

We found that theatre and performance can enrich contributions to transmit deep knowledge as well as have considerable capacity to generate community involvement. Performance can challenge prevailing ideas. It can synthesise complex scientific information and present it simply using metaphor and symbolism, thus aiding in communication. It can improve our own skills as communicators and can move the emotions and thus engage people in a topic. Performance can reinforce and affirm beliefs and attitudes and can provide a holistic framework, which contrasts with a scientific approach which often concentrates on one small detail. The same qualities are also evident in many of the visual arts.

Our examples show the many different effects that the arts can have on people's knowledge and attitudes about the environment. *The Plague and the Moonflower* promoted nature conservation and environmental protection to the general public and encouraged people to reflect on the consequences of their actions. The performances and art at the Ecological Conference assisted in affirming pro-ecological belief systems within an audience of scientists, as well as enriching the learning environment of that event. The ability of artists to synthesise complex ideas into powerful symbolic images, songs or performances can be important in influencing individuals and the greater community, and has been used effectively in environmental education programs in schools and in community education and extension (Andrew & Eastburn, 1997; Evergreen Theatre, 2002), as it was in our greenhouse case study. The celebratory aspects of the visual and performing arts also make them a useful tool in affirming ecological restoration and environmental repair activities as was shown in these case studies, particularly *Nova-anglica: The web of our endeavours*. This was well evidenced in the opening ceremony of the 2001 Olympic Games in Sydney, which demonstrated the marvellous ability of the arts to celebrate Australia's biodiversity and natural environment.

One of the great attributes of the arts is their ability to engage the emotions in a positive way. Arnold suggests that the arts encourage empathetic learning (Arnold, 2004). Her theory of empathetic intelligence suggests that empathy encourages people to decentre and experience feelings beyond those immediately accessible. Empathetic intelligence is when people engage together and a dynamic or spark is created. She suggests that emotion and feeling underlie cognition, and that consciousness and knowledge is linked with conscience. This ability to engage the emotions means that artists have a different ability to penetrate into communities and get over information, that traditional extension

services lack. An audience member of *The Plague and the Moonflower*, who was a professional ecologist, said that we underestimate the importance of building that side of people's attitudes. He said that we're good and practical – 'This is how you plant trees' – but we're much worse at building respect and awe. We deal factually rather than emotionally. In his long career he had become aware of different ways that people needed their eyes opened to the need for conservation, and he recognised the value in creating an 'emotional warmth' to engender belief.

The visual and performing arts appear to have great potential in encouraging people to reflect on the consequences of their actions and the nature of the environment itself, to influence our values, to show us ways to change our behaviour to lessen our impact on the environment and to enhance the environment through our activities (Green, 2002; Kastner & Wallis, 2001; Norman, 2001). Various forms are used effectively by different groups in society to affirm pro-environmental belief systems (Gold & Revill, 2004). Particular artists are often at the forefront in challenging dominant paradigms and are often active participants in attempts to change society, e.g. Cembalest (1991).

The use of the arts to influence behaviour is a vexed topic. Because of the nature of the languages open to practitioners of the visual and performing arts, with their lack of syntactical precision and the unpredictable discourse with materials and media it is often difficult for artists to respond to an aesthetic quest on the one hand and to address a specific topic on the other. Nevertheless the association between artists and those who attempt to conserve the natural environment has a long history (Bonyhady, 2000), and many artists use their work to communicate important insights into human relationships with the natural environment (Pollak & MacNabb, 2000). Indeed poets and artists have been influential in shaping attitudes about the Australian landscape (Papadakis, 1993). Furthermore stakeholder conflict over appropriate solutions to certain environmental issues can be due to fundamental differences in values (Sandall *et al.*, 2001) and the arts (particularly ecological art) can help provide a more unifying ecological aesthetic (Ian Hunter, 'Littoral', UK, Interview 4/8/2004).

The capacity of the arts to foster cooperation indicates an important potential role of community arts in fostering environmental sustainability. Many communities are hampered in their capacity to work together due to internal divisions and philosophic differences. Involvement in musical or theatrical activities, however, can be unthreatening and can often help heal social divisions or at least 'soften' resistance to the idea of communities working together. Such involvement, then, can potentially foster an improved social climate from which community-based environmental work may more readily emerge. Networking and community building aspects were evident in several in the case studies, and was similar to that found by Somers in his analysis of a community theatre project in the UK, about which he wrote: 'I believe [it] was an opportunity for a large section of the community to find justification to join again in common purpose, to *work* together to make something that could not be achieved without other members of the community' (Somers, 2002). Several of the case studies showed how the community arts can build social capital in a community (Putnam, 2000). In *Plague*, all of the people involved donated their services to the production, the combined value estimated over half a million dollars, and outweighing the cash value of the production by an order of magnitude. The experience in *Plague* also showed the importance of long term public sector investment in regional centres. Armidale is an unusual country town, in that a University was established there in the 1950s, and it is also a strong centre for education. This has attracted many professionals to the town as well as many people who are interested in the arts. Music (and other) teachers have built up high levels of artistic expertise in the community over decades. It was because the skills existed in the community, that it could come together and stage such an impressive event. In other words sustainable development that encourages participation in the arts is dependent on a rich and stable social fabric, which is in turn dependent on public sector investment. These findings support those of Jeannotte (2003) who also found that investments in cultural capital had significant contributions to social cohesion and the building of social capital, evidenced in the propensity to volunteer.

The ability of the arts in involving people in a spirit of altruism displayed by several case studies, is an important counter to the materialistic message of industry and a 'passive acceptance of the message consumerism' (as one participant in *The Plague in the Moonflower* put it). This aspect of the value of altruism is similar to the Norwegian tradition of 'Dugnad'. This concept informs Norwegian social

policy from the individual level to its policies at the international level. According to this tradition everybody is expected to contribute his or her time to commonly defined tasks. Community members come together to work on an issue in the local community or broader issues (Haugestad, 2003; Haugestad & Norgaard, 2004; Haugestad & Wulfhorst, 2004a, 2004b). Dugnad is the idea that one gives up time for the public good. At a community level people volunteer for street cleaning days recognising that to give means that everyone benefits. These authors suggest that Dugnad can serve as model for peaceful cooperation between people of different world views and values but with a shared interest in safe and human-friendly surroundings. They contend that Dugnad values are intrinsic in sustainable development both nationally and globally, and underpin Norway's international policies such as giving relatively high levels of overseas aid and supporting international efforts to reduce global warming. Altruism/Dugnad is another point of convergence between the arts and sustainable development for both community arts ventures and Landcare enjoy high levels of voluntary contributions.

As Bourdieu found, different groups within society (such as different classes, and people with different educational backgrounds) respond to different art forms (Bourdieu, 1984 [1979]), and people of different ages also respond differently to art works (Liben & Szechter, 2002). If the arts are to be used to provide changes in environmental behaviour across the whole of society, artforms have to be used that appeal to a broad cross-section. Of all the art forms, the community arts appear to have the greatest potential in achieving strong community participation, and have the capacity to include many different groups within a community to work collaboratively on projects.

Our relationship with the environment is determined by our entire culture. Since the arts are integral with the culture, a society that is living sustainably within the environment will reflect that in its arts. Cultural vitality is as essential to a healthy and sustainable society as social equity, environmental responsibility and economic viability (Hawkes, 2003). The case studies presented here and the overseas review show that arts based events can aid participation by a broad cross section of the community, can strengthen a community's abilities to promote inclusion, and have been vehicles for community mobilisation, empowerment, and information transfer. The studies also show how arts-based activities might be able to effect environmental behaviour at the individual and community level. It is hoped that community development workers, group organisers and extension agents might draw ideas from these examples to better utilise the arts in creating changes in environmental behaviour in the rural context.

It is important to acknowledge however, how the arts can become co-opted by a state or an ideology to promote behaviours that are not environmentally sustainable. The arts have been implicated in the development of a culture based on mass-consumption of resources in different ways, for example through such industries as advertising which often promotes behaviours which are not environmentally sustainable (Corrigan 1997, Hamilton 2003). As an extreme example, aesthetics and the arts were strongly implicated in Nazism (Mora, 2003), and 'invigorated, inspired and manipulated Nazi society' through hyper-architecture of gargantuan buildings, huge neo-classical sculptures, Nazi Deco palaces, and precisely staged theatrical rallies as well as film. Furthermore the Nazis favoured art that was realist and celebrated and idealised nature and the simple life (in contrast they hated modernist art). 'The Nazi regime in many ways was about art as Hitler understood and perceived it: painting, sculpture, architecture, literature, opera, performance and spectacle.' The arts were also strongly part of fascism in Italy (Alexander, 2003), and has been part of the propaganda machine in communist states and capitalist states alike, just as it has been an important part of movements of dissent (Clark, 1997). 'Art can be evil in intent *or* result' (Mora, 2003). So although one can become enthused about the role of the arts in improving environmental sustainability through their special ability to assist in getting over information and in communication, moving the emotions, and connecting us with the environment, it is important to realise that the arts can be misused.

The power of the arts is immense. Whilst it is difficult to measure specific changes that occur due to a particular art work or art project, the fact that the arts are so integral in propaganda, advertising, and, historically in affirming religions or enhancing the power of patrons, point to their considerable efficacy in influencing people's beliefs. This power is demonstrated by the phenomenon that authoritative governments typically try to suppress oppositional art forms. The arts are intriguing, for on the one

hand they can assist in consolidated the power of a particular group or class which is providing patronage. On the other hand they provide the vehicle for change. Historically dissent has been given voice through the arts, and the arts are an integral part of the non-violent protest movement in contemporary society (Branagan, 2003a, 2003b; Krajnc, 2000). Consequently any change towards a society that is ecologically sustainable will inevitably involve the arts as a vehicle for that change and in articulating any change in ethical frameworks and belief systems which will be integral in a society that is ecologically sustainable. Furthermore it is highly likely that the arts will be an important structural component of a future ecologically sustainable society. The research supports the findings of Turkovic (2002), that the new trends in environmental art protest ‘against the devastation of nature’ but also ‘suggests concrete solutions for the aesthetic reconstruction of nature’. As Turkovic says, artists are ‘no longer willing to be passive observers of nature; they draw near to it and create within it, rather than just observing it from the window’. Like Turkovic, we have concluded that art can change humankind’s attitudes toward nature by creating new values, and can contribute to the restoration of the environment.

The environmental challenges confronting Australia can be seen as immense and far outside the scope of anything the arts might be able to contribute. Issues such as land degradation and energy policy require economic and technical solutions of great complexity. Also, as Ungar (1998) has shown, while small gains can be made in behaviours like recycling, the prevailing discourses encouraging mass consumption far outweigh these efforts. As a settler nation Australia does not really have a history of sustainable development; the dominant environmental discourse in Australia is that resources are there to harvest, and the environment is there for a profit, while the sciences, arts, literature and environmentalism, are minority discourses by comparison (Elder, 2004). The data from *The Plague and the Moonflower* case study however showed that participation in art based events of this nature can have an ‘avalanche-like’ effect, where participation leads to learning, performance leads to expanding the message, which leads to more participation, and so on.

A model for how the arts affect environmental behaviour is presented in Figure 7.2. It is suggested that the work of individual artists can influence the behaviour of citizens through three major pathways, which impinge on a person’s values or attitudes. The degree to which a person responds will depend on individual characteristics, such as gender, class and so on. The accumulated result of our collective behaviours leads to macro-level impacts on the environment. A knowledge of these impacts in turn influence individual artists, and influences their practice.

The results of the case studies (and particularly the analysis of the survey data from *The Plague and the Moonflower* led us to infer a model for changing environmental behaviour using art events:

1. The art event prompts people to reflect on humanity's relationship with the natural environment. In an examination of interview data following the first concerts of *The Plague and the Moonflower*, it seemed that the starting point was moving emotions. However the survey data from the second concerts showed that moving emotions was not strongly correlated to behavioural change, but reflecting on humanity's relationship with the environment was.
2. The art event makes people feel strongly towards the natural environment. This effect was strongly correlated to behavioural change in *The Plague and the Moonflower* study.
3. The art event exposes people who’s environmental behaviour is poor to new ideas about the environment, and provides an opportunity to learn about some issues. The process of engagement appears to be extremely important here, and the way environmental issues are dealt with in that process. This then prompts behavioural changes in those people. Many falling into this group may be younger – they have not thought much about these issues before – and so the event can have a key influence on value formation.
4. For those who already have good environmental behaviour, the art event affirms, reminds, reinforces and strengthens their beliefs, thus leading to further behavioural change – that is taking the person to a still better level of environmental behaviour – or reduces their likelihood of sliding backwards.

5. For those participating in the art event, it provides an opportunity for them to express their beliefs, further consolidating them, and provides an opportunity to communicate those beliefs to a wider audience – expanding the audience to the environmental message.
6. The process then continues, rather like a chain reaction. Participation in art based events of this nature can have an ‘avalanche-like’ effect, where participation leads to learning, performance leads to expanding the message, which leads to more participation, and so on.

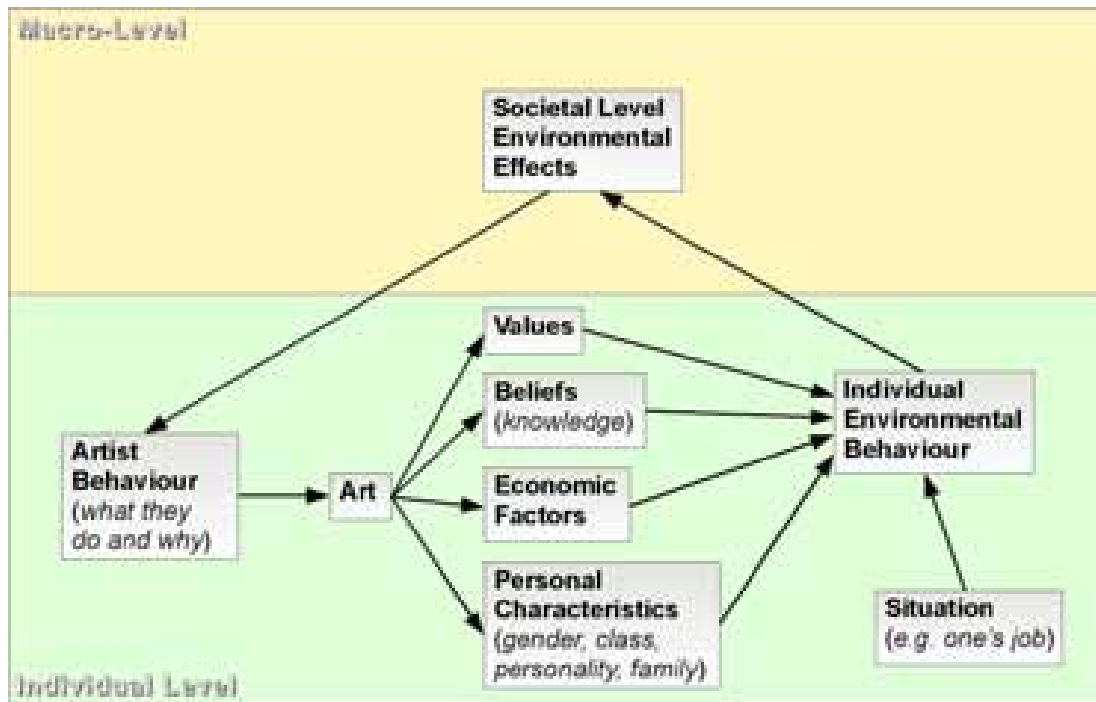


Figure 7.2: Model of how environmental behaviour might be shaped by the arts.

Chapter 8: The extension kit

One of the outcomes from this study was to produce a kit for extension workers and community facilitators in natural resources management which provided ways of using the arts in that work. On the basis of the preceding analyses, we have been able to distil the following points, which will comprise the basis of the kit.

The research that has been undertaken as part of the project 'Creating Inspiration: How the visual and performing arts shape environmental behaviour' has shown that the visual and performing arts have an important role in shaping environmental behaviour.

The main ways that the visual and performing arts can shape environmental behaviour are through the following mechanisms:

- improving understanding by clarifying and synthesising issues;
- improving communication;
- provoking dissent, discussion, and engagement to the issues; and
- encouraging an emotional or spiritual connection with the natural environment;
- catalysing ecologically sustainable development.

The arts can be applied to changing environmental behaviour for most, if not all, land, water, vegetation, and urban issues, such as:

- climate change and greenhouse gas emissions;
- soil salinity and land degradation;
- biodiversity loss;
- decline in water supplies and quality;
- urban sprawl; and
- waste management.

A wide variety of visual and performing arts techniques and types are applicable to affecting environmental behaviour and they can be included in a wide variety of combinations. They include:

- fine-art works;
- environmental sculptures;
- art exhibitions;
- field studies programs with visual arts students;
- art installations and special purpose events;
- one-off art competitions or exhibitions in schools;
- street theatre;
- play-building in schools;
- travelling theatre groups;
- specially commissioned theatre or performance works;

- large scale performances (including orchestral, choral, dance, visual and theatrical spectacles);
- concerts;
- the full spectrum of musical styles and types of music groups;
- street parades;
- community arts events and festivals;
- writing workshops;
- story telling;
- film;
- advertising and
- concerts or rituals in the natural environment.

A wide variety of techniques can be employed to involve the arts community into activities which seek to promote changes in environmental behaviour, including:

- commissioning special purpose art-works;
- using the status and fame of artists and performers to engage the community;
- generating schools-based activities, such as play-building pieces with Drama students, or circus activities;
- using visual or performing artists to facilitate planning processes;
- using visual and performing artists in planning processes; and
- inviting performing artists to perform at particular events.

From an extension point of view the visual and performing arts can be used in many contexts, such as:

- facilitated workshops;
- field days;
- special events;
- training days;
- social activities for Landcare groups;
- tree planting or Landcare days;
- conferences; and
- promotional purposes.

An individual arts-based event can have a wide range of effects and benefits. These effects and benefits are summarised in Table 8.1, with supporting evidence from the overseas interviews and case studies. The process of actually being involved in creating art (be it performance or visually based) is a powerful means for learning about an issue and shaping one's own behaviour, and is more powerful than being a passive receiver of the work (although that experience, too, can be powerful).

Table 8.1: Effects and benefits of arts-based activities or events with supporting evidence from interviews and case studies.

EFFECT OR BENEFIT	CASE STUDY	INTERVIEW
Communication		
Increase and broaden the audience being exposed to environmental issues	<i>Plague and the Moonflower</i> <i>Nova-anglica</i>	Tara Ryan Wes Sanders Downing Cless
Lead to people retaining information, or at least a heightened sensibility for the topics and even more importantly to associate the environment with positive thoughts and images	<i>Plague</i> <i>Nova-anglica</i> Bungawalbin Greening Australia	Tara Ryan
Provide a vehicle for community education and transfer of scientific information.	Greenhouse in schools Greening Australia	<i>Evergreen Theatre;</i> <i>Underground Railway Theatre (URT)</i>
Elevate what could have been a normal (say) field day into a special event which can therefore increase the audience.	Bungawalbin Greening Australia	<i>Platform Theatre</i>
Expose people to ideas that they may not have thought much about before.	<i>Plague</i> Greenhouse in schools Gunnedah	<i>Platform</i> <i>Evergreen</i> <i>URT</i>
Provide an enduring image of a particular event	ESA conference, Bungawalbin, <i>Nova-anglica</i> <i>Plague</i>	Ralph Steadman Rolf Groven
Allow a voice of dissent to be articulated	<i>Plague</i>	Rolf Groven Ralph Steadman Downing Cless <i>Bread & Puppet Theatre</i> <i>Platform</i>
Assist in building skills in extension staff in performance and delivery of information	Greening Australia	
Encapsulate a wide variety of issues	ESA conference Greening Australia	<i>URT</i>
Make the invisible visible	Grizedale Forest	Rolf Groven
Appeal to a range of people regardless of learning styles and abilities	<i>Plague</i> <i>Nova-anglica</i> Gunnedah	Ian Hunter Rosi Lister
Synthesise and communicate complex issues & information	Greenhouse in schools	<i>Evergreen Theatre</i>
Create an atmosphere which enhances the experience of the natural environment	Bungawalbin Festival	<i>Bread & Puppet,</i> <i>Welfare State International</i>
Create an atmosphere that is conducive for learning	ESA conference <i>Nova-anglica</i>	Rosi Lister

Continued on next page

EFFECT OR BENEFIT	CASE STUDY	INTERVIEW
Individual Processes		
Affirm people's beliefs in caring for the environment and celebrate the work they do to repair the environment	<i>Nova-anglica</i>	Rosi Lister Ian Hunter
Move people emotionally	<i>Plague</i> Gunnedah	Ralph Steadman <i>URT</i>
Make people reflect on their relationship with the natural environment.	<i>Plague</i>	Rosi Lister <i>Evergreen</i>
Make people feel strongly towards the natural environment	<i>Plague</i>	<i>URT</i> <i>WSI</i>
Provide a vehicle for people to express their feelings for the natural environment	<i>Plague</i> <i>Nova-anglica</i> Gunnedah	<i>WSI</i> Ian Hunter Rosi Lister
Provide a vehicle to strengthen people's beliefs about certain issues	<i>Plague</i> <i>Nova-anglica</i> Gunnedah	Rosi Lister
Give an artistic voice to those working towards regeneration of the environment by affirming effort and achievement	<i>Nova-anglica</i> ESA conference	Rosi Lister Ian Hunter
Allow farmers, scientists, government workers and others involved in landscape change, new and creative ways of expressing their feelings for, and knowledge about the land and the natural environment	<i>Nova-anglica</i>	
Group processes		
Foster cooperation, collaboration and team-work	<i>Plague</i> <i>Nova-anglica</i> Gunnedah Greening Australia	Rosi Lister Ian Hunter <i>WSI</i> <i>Bread & Puppet</i>
Improve processes in planning meetings, by helping find new ways of looking at a problem, stimulating creative thinking, motivating participants and helping improve the cohesiveness of the group	<i>Nova-anglica</i> Greening Australia Gunnedah	Rosi Lister
Rekindle interest in the environment and revive the spirits of those working on environmental issues	ESA conference <i>Nova-anglica</i> <i>Plague</i> Bungawalbin	<i>URT</i> Rolf Groven

Continued on next page

EFFECT OR BENEFIT	CASE STUDY	INTERVIEW
Community processes		
Provide a vehicle for community mobilisation and empowerment	<i>Nova-anglica</i> Gunnedah <i>Plague</i>	Rosi Lister <i>WSI</i> Ian Hunter
Make people feel an appreciation and pride in community	<i>Plague</i> Gunnedah <i>Nova-anglica</i>	Rosi Lister <i>WSI</i> Ian Hunter
Engage people in activities of altruism and show them that there are alternatives to consumerism and activities that cause environmental degradation	<i>Plague</i> <i>Nova-anglica</i> Gunnedah	Rosi Lister <i>WSI</i> Ian Hunter John Somers
Provide a vehicle of networking and enable a broad participation by a cross-section of the community for people to work together	<i>Plague</i> <i>Nova-anglica</i> Gunnedah	John Somers Rosi Lister Ian Hunter <i>WSI</i>
Provide a vehicle to involve Indigenous visual and performing artists and to build bridges between the black and white communities.	<i>Plague</i> Bungawalbin	
Provide an opportunity for Indigenous people to reinforce cultural practice and to expand that to a non-aboriginal audience	Bungawalbin <i>Plague</i>	

Chapter 9: Recommendations

The research that has been undertaken as part of the project ‘Creating Inspiration: How the visual and performing arts shape environmental behaviour’ has implications in several areas of government policy. These have been divided into three general areas: improving natural resource management, fostering environmentally sustainable development and improving the effectiveness of extension.

Art in improving natural resource management

Funding for natural resources programs

Funding programs pay little heed to the cultural elements that impede behavioural change. After more than a decade of Landcare the majority of land managers remain uninvolved and many environmental problems are worsening. The research shows that the visual and performing arts have a powerful role in affecting attitudes and broadening the audience to environmental messages. Funding programs which seek to create shifts in environmental behaviour, would obtain additional benefits if they included arts-based activities in the activities that they fund. To the extent that changes in environmental behaviour are as much a collective as an individual project, the capacity of the arts to foster cooperation is further reason for greater emphasis on the arts in natural resources programs.

RECOMMENDATION 1: Funding programs which seek to create shifts in environmental behaviour (including natural resources management programs) should broaden their funding guidelines to include arts-based projects, where such projects can demonstrate environmental outcomes, or outcomes in improved capacity building.

Arts funding

The research has implications in the kind of funding that is offered to artists. Whilst we acknowledge the importance of funding arts projects based on aesthetic considerations, our research also shows that the arts have an important role in reversing environmental degradation and encouraging environmental renewal. Furthermore, there has been a shift in arts policy at the national level to encourage whole-of-government approaches, where arts funding is integrated with other areas of government policy, such as health. The Australian Public Service Commission's (APSC, 2004) report on the whole-of-government approach has defined ‘whole-of-government’ in the Australian Public Service (APS) as:

... public service agencies working across portfolio boundaries to achieve a shared goal and an integrated government response to particular issues. Approaches can be formal and informal. They can focus on policy development, program management and service delivery (APSC, 2004:1).

The ‘whole-of-government’ mainstreaming approach should be marked by five characteristics: collaboration, regional need, flexibility, accountability and leadership. Information and knowledge sharing are seen to be key to the cultural change necessary to create whole-of-government as the public administration future of Australia.

RECOMMENDATION 2: Consistent with the whole-of-government approach, the findings of this project should be brought to the attention of policy makers in arts and cultural affairs in Commonwealth and State Governments. There should be a review of funding programs for the arts to ensure that there are no barriers to the participation of regional and community artists, and that the programs contain components specifically targeted at art and natural resource management issues.

Participatory art forms

The research found that participation in art-based events of this nature can have an ‘avalanche-like’ effect, where participation leads to learning, performance spreads the message, which leads to more participation, and so on. The actual process of being involved in creating art, and researching and reflecting in the process of its development, can help one develop or consolidate ideas and knowledge about a topic, and this process is not dissimilar to what goes on in many Landcare activities. The community arts emphasise the importance of the process, and many of the examples examined in our research demonstrate this. Considerable opportunity exists for a convergence between participatory art forms and community development models for environmentally sustainable development in both rural and urban areas.

RECOMMENDATION 3: Funding from both the private and public sectors in the arts and natural resources management should sympathetically consider community arts project and other forms of participatory art forms which have an environmental theme or outcomes.

Art to foster environmentally sustainable development

The arts as a structural component of a post-consumerist society

Public art and community art are likely to have an important place in the emergence of non-materialist consumption and to be an essential part of a future ‘post-consumerist’ (or environmentally sustainable) Australia, where consumption might be more of ‘conspicuous leisure’ than of ‘conspicuous consumption of goods’ (Corrigan, 1997, p. 25). Channelling surplus product into the arts is likely to have benefits in reducing some of Australia’s environmental impacts in key areas, such as reducing greenhouse gas emissions.

RECOMMENDATION 4: Research should be encouraged into the greenhouse emissions of the arts compared to other sectors in the economy, and the reductions in emissions that might be achieved by investment in the arts sector, compared to investment in other forms of emission reduction.

Infrastructure investment

The research has implications in the focus of infrastructure investment and the way that it skews investment towards activities that cause environmental harm. An environmentally sustainable society will incorporate the arts structurally. The arts are labour-intensive, promote creativity and problem solving, and build social capital. A shift in public investment from energy and resources-intensive areas towards the arts (in particular, the community arts) is likely to reduce Australia’s environmental impacts.

RECOMMENDATION 5: A greater proportion of public investment in public infrastructure and public spaces should be directed to community and public art, particularly that which is linked to improving environmental sustainability. Incentives should be provided to encourage private investment in public and community art. Policy research should be undertaken into the means by which public and private investment can be shifted towards the community and public arts, particularly where such art can be shown to have environmentally favourable outcomes.

Environmentally sustainable regional and urban development

The research findings suggest that environmentally sustainable regional and urban development could be encouraged by integrating certain art forms with farm forestry, rural regeneration, and land rehabilitation initiatives, or where farmers incorporate principles of landscape design into farm planning. In urban areas, public and community art can be incorporated into urban planning designs

which reduce greenhouse gas emissions through excellent public transport and facilities for walking and bicycling. This point is valid for both metropolitan urban areas or rural and regional towns and cities.

RECOMMENDATION 6: Urban and regional planning authorities and regional development agencies and organisations should integrate the arts and cultural development into their operations and strategic plans.

Building cultural capacity in regional centres to promote a new land ethic

In the last two decades, many rural towns and cities have had significant cultural renewal, with aesthetically pleasing town centres and environmental plans, and in some cases significant community and cultural development. Land managers experience the aesthetics of these new public spaces when they visit their local towns or villages. The current research points to a potential spin off for land management from these cultural efforts. However, it is uncertain what effects these urban renewal projects have on the attitudes and perceptions of land managers for their own land, and whether cultural and aesthetic renewal through public and community art have spin-offs in increased landcare activity by land managers in the hinterland around those centres. To our knowledge this has not been studied to any extent in Australia.

RECOMMENDATION 7: Research funding should be directed towards investigating the link between cultural renewal in rural towns and centres and its effect on how land managers near those centres view and manage their own land, and whether cultural renewal of rural towns is a route to improving land management in the hinterlands around them.

Improving the effectiveness of extension

Extension and information transfer programs

Currently extension programs in the natural resources sector and others that involve information transfer have little contact with the arts community, although many in the arts community are vitally interested in land and environment issues. The research shows that extension programs have much to gain by including arts and cultural elements.

RECOMMENDATION 8: Extension and natural resource management agencies should work with the arts sector, and in particular community artists, on joint projects and programs. Artists should be included in planning processes.

The arts as a means of normalising good environmental behaviour

The research has found that festivals and art events can normalise good environmental behaviour. They do this through the process of ‘suspension of normality’ (Measham, 2003, 2005), which opens a space for the inclusion of environmental considerations in community activities. This can occur in a number of ways. The first is where the festival has a theme based around celebrating some aspect of the natural environment or restorative endeavours. The second is where the process involved in the event incorporates some good practices, for example, using recycled materials in the construction of sets, or using public transport to move participants around. The third way is where good environmental practices are built into the event itself, such as excellent recycling facilities. Thus, through normalising best environmental practices, the event can lead to those behaviours becoming the cultural norm.

RECOMMENDATION 9: Further research should be funded into investigating the roles of festivals and events in normalising and promoting environmentally sustainable behaviour.

RECOMMENDATION 10: Natural resources agencies and organisations seeking improvement in general environmental behaviour should work with festivals and large art events, to incorporate environmental themes and encourage them to adopt best environmental practice in the way that they are run.

Funding is a problem for many artists

A fundamental issue facing artists is their low income compared with other professions. Although there are significant numbers of artists who can and do earn a satisfactory living from their artistic work, most professional artists earn significantly less than other professionals (Throsby & Thompson, 1994, 1995). As a result a majority of artists have to work outside their creative practice to provide a reliable income source. Artists also have to contend with relatively high expenses from their professional work and irregularity of income. As a sector, the arts are vulnerable to the vagaries of the economy, and funding from the private sector can fluctuate greatly (Martin, 1993). This problem is recognised in some other countries and remedied with public stipends for artists. Community projects often expect artists to work for free or to provide substantial in-kind support. Where the arts are used in extension and education projects, provision needs to be made for paying artists adequately.

RECOMMENDATION 11: Where natural resources agencies and organisations seek to involve the arts community, adequate remuneration for artists should be built into budgets.

Insurance

Some of the case studies studied in this research have shown that current rules regarding insurance for public events are a major disincentive for many arts-based activities. Insurance issues can hold up, or even make some types of events untenable. Making insurance cover easier for community arts events would enable groups to do more.

RECOMMENDATION 12: State and Federal Governments should provide a unified response to simplify insurance requirements and ensure that costs are not prohibitive for community events.

Working with schools

School teachers work under considerable pressure and often in sub-optimal working conditions. Consequently, it can be difficult for them to take on extra projects, particularly if they are not integrated with curriculum. Arts and environment events that involve schools are highly desirable in creating environmental behaviour change, but in many cases it may be difficult for teachers to support these events.

RECOMMENDATION 13: If projects are developed with schools in mind, they should be integrated with the curriculum in collaboration with teachers, and provision for relief time may need to be built into budgets.

Appendices

Appendix 1: People and groups interviewed or visited as part of the overseas review

Art Medium	Artist	Group/Organisation	Country
<i>Visual Artists</i>	Ralph Steadman		London, UK
	Rolf Groven		Oslo, Norway
<i>Performing Artists</i>	Shereen Khachik		Trondheim, Norway
<i>Performing Arts Groups</i>	Tara Ryan Maree Devereux	<i>Evergreen Theatre</i>	Calgary, Canada
	Wes Sanders	<i>Underground Railway Theatre</i>	Burlington, Vermont USA
	Greg Muttitt	<i>Platform Theatre</i>	London, UK
<i>Community arts (cross-over between visual and performing arts)</i>	Anthea Rathlin-Jones Kerynne Robertson	<i>Welfare State International</i>	Ulverston, UK
	Elka Schumann Jabiri Jones	<i>Bread and Puppet Theatre</i>	Glover, Vermont USA
	Ian Hunter Celia Lamer	<i>Littoral</i>	Ramsbottom, UK
<i>Farm forester</i>	Walter Lloyd		Cumbria, UK
<i>Sustainable economic development</i>	Michael Kinsley	Rocky Mountain Institute	Snomass Colorado USA
<i>Researchers into art and the environment</i>	Downing Cless	Tufts University	Boston, Massachusetts USA
	Rosi Lister	<i>Druid Arts</i>	York, UK
	David Peat	Pari Centre	Pari, Italy
	John Somers	University of Exeter	UK
<i>Performances and art exhibitions attended</i>	Various*	Grizedale Forest	?
	William Fairbank*	<i>The Forest Stations,</i>	Norfolk Cathedral, UK
	<i>Canterbury Tales</i> *		Lancaster, UK
	Andy Goldsworthy*	Metropolitan Museum of Modern Art New York, Casterton, UK	UK, USA
	Gustav Vigeland*	Vigeland Park	Oslo, Norway
	Community Opera*		Trondheim, Norway

[Those marked * were visits to performances or artworks – all others are interviews]

Appendix 2: Publications produced

Refereed journals and conference proceedings

- Curtis, D.J. 2003. The arts and restoration: a fertile partnership? *Ecological Management and Restoration* 4: 163-169.
- Curtis, D.J. 2003. Initial impressions on the role of the performing and visual arts in influencing environmental behaviour. pp. 1-11 in *TASA 2003: New Times, New Worlds, New Ideas: Sociology Today and Tomorrow*, edited by P. Corrigan, M. Gibson, G. Hawkes, E. Livingston, J. Scott, S. Thiele and G. Carpenter. University of New England, Armidale New South Wales: The Australian Sociological Society and the University of New England.
- Curtis, D.J. and Reeve, I. (under review) Rekindling environmental ethics in community attitudes through the performing arts. *Journal of Ethics in Science and Environmental Politics*.
- Curtis, D.J. (under review) Mobilising rural communities to achieve environmental sustainability using the arts. *Agricultural Economics Review*.

Conference papers

- Curtis, D.J. 2002. Creating inspiration – how music shapes behaviour towards the environment PAPER FOR 9th National Conference of the International Association for the Study of Popular Music (IASPM) 19-21 July, University of New England, Armidale N.S.W. From WAY OUT to WAY IN: the Dialectic between the 'ALTERNATIVE' and 'MAINSTREAM'
- Curtis, D.J. 2003. Using the arts to create an ecological ethic: The nuts and bolts of using the arts in extension. *Ecological Society of Australia ECOLOGY 2003 Conference*, University of New England, Armidale 8-10 December 2003.
- Curtis, D.J. and Curtis, F.M. 2004. Performance and environmental awareness. *IDEA 2004 conference*. Ottawa, Canada 2-8 July 2004.
- Curtis, D.J. 2004. Mobilising rural communities to achieve environmental sustainability using the arts. *XI World Congress of Rural Sociology, July 25-30, 2004*. Trondheim, Norway.
- Everett, L. Curtis, D.J. and Curtis, F.M. 2004. 'Tre los Lantana': Using theatre for environmental education. *IDEA Conference July 2004*. Ottawa, Canada.
- Curtis, D.J. 2005. Rural festivals and environmental sustainability. *Geographies for Sustainable Futures*, IAG Conference, University of New England, 19-22 July 2005.

Book chapters

- Curtis, D.J. and Curtis, F. (in press). Performance and environmental awareness. In *The Universal Mosaic of Drama/Theatre: The IDEA 2004 Dialogues*.

Other articles

- Curtis, D.J. (Editor) 2002. The Environment and the Arts. *Armidale Tree Group Newsletter* No. 83. Armidale Tree Group, Armidale N.S.W.
- Curtis, D.J. 2004. Plague and the Moonflower. *ArtReach* March 2004, 26-27.
- Curtis, D.J. 2004. Building capacity for environmental sustainability using the visual and performing arts. *RipRap* 27:12-13.
- Curtis, D.J. 2004. Using the arts to promote environmental sustainability. *Capacit-e-newsletter* 7:1.
- Curtis, D.J. 2005. Catastrophes in slow motion: changing the tide through the arts. *The Country Web* 37:21, Rural Women's Network.

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