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EUCRYPHIA

Robertson Environment



Protection Society Inc.

No. 50 February, 2001

The chosen logo is derived from the leaves of Eucryphia moorei or Pinkwood, a beautiful cool-temperate rainforest tree which grows in the district.

The cover of this 50th edition is in the style of the first edition produced in December 1990.

NOTICE OF MEETING

FRIDAY 9TH FEBRUARY 7.30PM

ROBERTSON COMMUNITY CENTRE

Our guest speaker will be *Brendon Neilly* the newly appointed *Warden at the Barren Grounds Bird Observatory*.

Brendon will answer some key questions related to Barren Grounds including:

- ❑ Where is Barren Grounds?
- ❑ What does the future hold for Barren Grounds?
- ❑ What will the change in staff mean?

The Barren Grounds Bird Observatory and Nature Reserve is a wonderfully rich habitat for those living in this part of New South Wales to get to know and use to the fullest extent. A rich programme of activities is held there throughout the year. The Observatory itself is one of four set up by Birds Australia to provide research and education facilities.

Barren Grounds Observatory is of note as the host to three particular species of bird:

- ❑ The Ground Parrot (vulnerable)
- ❑ The Eastern Bristlebird (endangered)
- ❑ The Southern Emu Wren (one of the strongest populations)

The 1785 hectares of Nature Reserve is rich habitat with 190 species of birds recorded, some 20 species of mammals, and the number of recorded reptiles and amphibians recorded grows with each specialist course held at the Centre.

Brendon Neilly has over 10 years experience in wildlife rehabilitation and monitoring and has spent the last 5 years managing an environmental community education centre for the NSW National Parks and Wildlife Service. During his science degree he majored in plant physiology and ecology and will talk about what his background experience brings to his new position.

This provides an excellent opportunity for members and friends of REPS to meet Brendon and for him to meet REPS members and hear about our work!

EDITOR'S NOTE

It's amazing to think that REPS has now been in existence for ten years and that our journal has now reached the milestone of 50 editions. While it is wonderful to reflect on our achievements there are fundamental issues that will need to be addressed if the society is to continue to provide the same level of service and commitment to the members and the wider community.

As mentioned in Eucryphia No 48 realistically there is a limit to just what a small number of people (in this case the committee) can take on and how long they can sustain the effort without support or relief.

It is pleasing to see some new faces on the committee this year, however the roles of secretary and treasurer remain difficult to attract new people to and have again been filled by the 'old guard'. It was made known at the AGM that the present treasurer will not be standing at the next AMG and an effort will be need to be made to find a replacement before then.

Despite the ever increasing membership (approximately 150) there are very few people who are willing to become more involved in either the running or the activities of the society. Personally, (and I should stress this may not be a view shared by members of the present committee) I believe that without the support of the wider membership it will become extremely difficult to effectively manage and complete many of the projects currently under way or being planned. Just something for you to ponder.

This edition will contain some information regarding the activities of the society and the journal – no you wont be bombarded with endless statistics – but it is interesting to look back at the range of speakers and articles over the last ten years.

This is my last edition as editor of Eucryphia.....it's time for someone new to take the helm. Perhaps a new format? - who knows – there are so many things that can be done with new whizz-bang computers (an area I confess I have little interest in). I would like to thank all of you who have contributed to Eucryphia during my time as editor, I particular my partner Dennice Fletcher (the true 'editor' of Eucryphia – I always felt I was just a compiler) for her support especially during my rantings over the years. I am sure you will continue to provide the same level of support to our new editor Christine Godden and I wish her every success.

Steve Douglas

Contributions to Eucryphia can be sent to the editor Christine Godden PO Box 168 Jamberoo 2533.

To contact the society or if you require further details on how to become a member please contact the secretary Ph 4885 – 1394 PO Box 45 Robertson 2577.

COMMITTEE NEWS

REPS OFFICE BEARERS (elected 10th November 2000)

President: Bob McInnes

Vice President: Robyn Williams

Secretary: Helen Tranter

Treasurer: Dennice Fletcher

Committee Members: Roy Freere, Leon Hall, Jonathon Persse

Publicity Officer: David Tranter

Journal Editor: Christine Godden

Talks Convenor: Georgina Persse

Public Officer: Helen Tranter

Librarian: Dennice Fletcher

Supper Convenor: Bob McInnes

Railway Sub-committee: Roy Freere, Graham Carpenter, David Tranter, Helen Tranter

REPS PROJECTS

REPS is involved in an ever increasing number of projects including the Robertson Railway Station Restoration, the Caalang Creek Rivecare Project, the Nepean River Riparian Planting at East Kangaloon, the Centenary of Federation Tree Planting – Pinkwood Park to name but a few. For further information or if you wish to become involved in any of these projects please contact the secretary 4885 – 1394.

Some dates for the diary:

Saturday 3rd & 10th February 7.30am – 11am – Rivercare project – meet at the end of May Street – bring mattocks, hoes, spray equipment.

Saturday 17th February ‘History of Robertson’ Robertson School of Arts.

First Wednesday of each month 10.00am Working Bee at the Robertson Nature Reserve.

INTERESTING INFORMATION

For those of you who are interested in ‘statistics’ our vice-president Robyn Williams has compiled the following list. By taking all the talks given at REPS meetings over the past 10 years, allocating them to subject areas and comparing attendances she has come up with the twelve most popular talks. It was surprise to see that talks allocated to ‘Business Topics’ were the most popular. Thanks to Robyn for providing this information.

Provided too is a list of interesting articles from Eucryphia over the last ten years. Many of these articles would be of interest to members who have joined the society in recent years. As the library does hold back issues of Eucryphia you can obtain copies by contacting Dennice on 4271 – 4957.

TEN YEARS OF TALKS

(Shading = top dozen attendances)

BUSINESS TOPICS

11-Feb-94	David & Helen Tranter (Commercial protea growers)	Australian native cut flowers
11-Aug-95	Russell Cowgill (State Forests)	The potential for native hardwood plantations in the Sthn.Highlands
14-Jun-96	Janet Richardson (Ecotourism Association of Australia)	The role of villages in ecotourism (Green Villages)
17-Apr-98	Graham Mitchell (DUAP)	Harvest Guarantee Act
12-Feb-99	Lins Vellens	Carbon credits and the greenhouse debate

BUILT ENVIRONMENT TOPICS

09-Apr-91	John Goodwin (WSC Officer)	Recycling
13-Mar-92	John Stowar (Landscape Architect)	Criteria for selecting suitable street trees
13-Mar-92	Paul Eccleston (Illawarra Electricity)	Energy efficient housing
10-Jul-92	Greg Watt (New Technologies Section, Pacific Power)	Wind power for electricity generation
11-Dec-92	Jeff Lawrence (WSC Manager Strategic Planning)	Draft LEP amendments including 7(b) landscape protection zone
14-May-93	Andrew Patterson & John Alkemade (Nat.Home Builders P/L)	Ways to make existing homes more energy efficient
12-Aug-94	Jeff Lawrence (WSC Manager Strategic Planning)	Wingecarribee Heritage Study
10-Feb-95	Rob Grimmett (South Eastern Renewable Energy)	Stand alone energy systems
09-Jun-95	Miles Lochhead (WSC Manager Waste Services)	Waste management
14-Feb-97	Dr. Ted Trainer (UNSW)	The form a sustainable society should take
02-Nov-97	Rudy van Drie (Development engineer)	Environmentally sensitive approaches to stormwater management
28-Aug-98	Dr. Peter Freere (Ctr. Elect. Power Engineering, Monash Uni.)	Wind Energy 2000
13-Oct-00	Dr. Ellen Percy Kraly (Visiting Prof. Geography, W'gong Uni.)	Population, Demography and the Environment

GEOLOGY TOPICS

13-Oct-95	Mary White (Consulting paleobotanist and author)	Geological and botanical history of the Australian continent
10-Oct-97	Dr. Peter Rickwood (UNSW)	The Sydney Basin - more than just sandstone and coal
12-Nov-99	Greg Stone & Ray Nolan	Bedrock and botanicals

CONSERVATION & LAND MANAGEMENT TOPICS

12-Feb-91	Greg Stone (Woodlands Revegetation)	Conservation of indigenous vegetation on roadsides
11-Jun-91	Guy van Owen (District Soil Conservationist)	Soil conservation
10-Dec-91	Hugh Waring OAM (Ret. Forest Research Scientist CSIRO)	Forest clearance, farming, land deg., tree planting and nutrition
11-Sep-92	Don Tilley (Catchment Protection Officer)	Upper Nepean catchment protection scheme
10-Mar-95	Kathryn Maxwell (Aust. Nature Conservation Agency)	Financial incentives available to protect remnant vegetation
11-Apr-97	Roger Good (NPWS)	Wingecarribee Swamp management strategies
13-Jun-97	Alan Scrymgeour (Teacher and conservationist)	The role of the private landholder in conservation issues
09-Oct-98	A/Prof. Richard Norris (CRC for Freshwater Ecology)	Assessing river health - the power of aquatic invertebrates
11-Feb-00	Brad Davies & Karen Elton (DLWC)	Riparian land management programs
14-Apr-00	Kurt Kremer	What's the problem with willows?

VEGETATION TOPICS

13-Aug-91	Phillip Kodela (UNSW)	Rainforest pollen and paleoecological studies in the Robertson area
08-Apr-94	Prof. Rob Whelan (Uni. Wollongong)	The effects of bushfires
10-Jun-94	Peter Hind (Royal Botanic Gardens)	Fern flora of the Robertson district
07-Apr-95	Pat Jordan (NPWS)	Bush tucker
08-Dec-95	Dr. Kevin Mills (Environmental Consultant)	Rainforests of the Illawarra region
12-Apr-96	Dr. Alec Wood (Sydney Fungi Study Group)	Friendly forest fungi
08-Nov-96	Larry Melican (WSC Bushland Coordinator)	Bushland reserves in Wingecarribee Shire
08-Aug-97	Garry Leonard (Botanical consultant)	Eucalypts of the Robertson and surrounding areas
10-Dec-99	Anders Bofeldt	Native plants as suitable substitutes for exotics
11-Aug-00	Dr. Judy West (Dir. Cntr. Plant Biodiversity Research, CSIRO)	Plant biodiversity in Australia

WILDLIFE TOPICS

12-Mar-93	Catherine Dunstan (UNSW)	Effects of habitat fragmentation on small mammals
09-Jul-93	Debbie Andrew (NPWS)	The quest for the tiger quoll
10-Dec-93	Pat Jordan (Barren Grounds)	Birds and flora of Barren Grounds
14-Oct-94	Harry Wever (Veterinary surgeon)	WIRES and wildlife rescue in the Highlands
09-Feb-96	Geoff Goodfellow (Sthn. Highlands frog watcher)	Where have all the frogs gone?
11-Oct-96	Mike Bellshaw (NPWS)	Endangered and threatened wildlife protection program
13-Dec-96	Dr. Chris Tidemann (ANU)	Common mynahs - should we do something about them?
12-Dec-97	Raoul Boughton (Warden Barren Grounds)	Barren Grounds - ground parrots and other birdlife
12-Jun-98	Helen George & Gaylene Parker	Wombats
13-Aug-98	Ken Griffiths	Frogs of the greater Sydney region
08-Oct-99	Nigel Lewis	Fish of the local area
09-Jun-00	Helen George	Echidnas

ARTS TOPICS

10-Sep-93	Cecil Rutledge (Hon. Curator Albion Park Museum)	Aboriginal art of the Wodi Wodi
11-Jun-99	Brett Wilson (Clockmaker)	The time machine - mechanical clocks and watches

LIST OF ARTICLES IN *EUCRYPHIA* 1990-2000

No.	MTH/YR	TITLE / AUTHOR
1	12/90	'Energy and Resource Conservation and Other Issues', Robyn Williams 'The Robertson Rainforests: An Historical Perspective', Allan Stiles
2	3/91	'Conservation of Indigenous Vegetation on Roadsides', Greg Stone 'Checklist of Vascular Plants in Robertson Rainforests', Allan Stiles
3	7/91	'Soil Conservation', Guy van Owen 'Plant Species recorded from pastures, roadsides and wasteland areas in the Robertson-Moss Vale Region, Central Tablelands, NSW', Phillip G. Kodela
4	11/91	'Robertson Village Rainforest Reforesting Project', Beth Boughton 'Remarkable Flowering of Rainforest Plants', Allan Stiles
5	2/92	'Rainforest, pollen and paleoecological studies in the Robertson area', Phillip G. Kodela (School of Geographphy, UNSW) 'Rare trees found', Allan Stiles
6	4/92	'Report on Aerial Photography Project' (remarkable flowering of rainforest trees and vines), Allan Stiles 'Native Vegetation Remnants and Notes on some Rare and Locally Significant Plant Species in the Robertson area, NSW', Phillip G. Kodela (School of Geography, UNSW)
7	6/92	'Criteria for Selecting Suitable Street Trees', John Stowar 'Peat Extraction Threatens Environmentally Important Swamps on the Southern Highlands', Phillip G. Kodela (School of Geography, UNSW)
11	6/93	'The Effects on Ground-Dwelling Small Mammals of Fragmentation and Disturbance of Rainforest Remnants on the Robertson Plateau, NSW', Catherine E. Dunstan (School of Biological Science, UNSW)
13	11/93	'Waste Minimisation in Wingecarribee', John Sherborne
15	2/94	'Rare Plants in Rainforests of the Robertson Plateau – Part 1– The Nationally Threatened Species', Anders Bofeldt
17	5/94	'Rare Plants in Rainforests of the Robertson Plateau – Part 1(cont'd) – Plants Not Currently Listed But Which Warrant Listing', Anders Bofeldt
18	7/94	Extracts from The Wingecarribee Heritage Study 'Rare Plants in Rainforests of the Robertson Plateau – Part 2– The Regionally Rare Species, Category 1 and Category 2', Anders Bofeldt, also 'Rainforest Species which are Rare or Significant on The Robertson Plateau' and 'Species which are Currently Unknown from the Robertson Plateau but Occur in Similar Habitats within a 100km Radius and Hence have the Possibility of Occurring in the Area'
19	9/94	'Epiphytic and Lithophytic Orchids at Robertson', Allan Stiles
21	1/95	'Ferns of the Robertson and Illawarra Districts', Peter Hind
22	7/95	'A Whole Lot of Garbage that All Made Sense', Bob McInnes
23	11/95	Request for Information – research for book on the degradation of the Australian continent, Mary E. White, consulting paleobotanist 'A Guide to Native Herb Species in Robertson Rainforests', Phillip G. Kodela (National Herbarium of NSW)
24	2/96	'Caalang Wetland Inspection – Surrey and Betty Jacobs', Phillip G. Kodela 'Firewood in the Southern Highlands', Steve Douglas
25	4/96	'Towards Clean Burning Home Wood Heating', Len Hainke
26	6/96	'What Can We Do With The Rain?', Robyn Williams 'Firewood Species for the Robertson Area', Steve Douglas
27	8/96	'The Planting of a Woodlot and Garden Around Robertson', Tricia Hogg
28	11/96	'Multi-functional Shelterbelts', Peter Lach-Newinsky
29	2/97	'Light Pollution', Larry Whipper 'Habitat Modification', Steve Douglas
30	4/97	'A Visit to Pigface Point – An Alternative Lifestyle Education Site', Dr Ted Trainer
31	6/97	'A Natural History of Money – A New Perspective on Energy Conversion' (summary of talk to Bowral Probus 20/3/97), David Tranter
32	8/97	'The Genus <i>Eucryphia</i> ', Allan Stiles
33	10/97	'Eucalypts of the Robertson Area', Gary Leonard
34	12/97	'Rugger or Green Belt?', Roy Freere
36	4/98	'Red Cedar (<i>Toona ciliata</i>) for Farm Forestry', Tess Heighes
37	6/98	'The Harvest Guarantee', (summary of presentation by Graeme Mitchell, Timber Plantations Officer, DUAP, 17/4/98)
38	8/98	'Discovery of Rare Beetle (<i>Zeugophora vitinea</i>) in Robertson Nature Reserve', Chris Reid, Div. Entomology, CSIRO 'Solar Saga – Rajungay Retrospections 18 Years On', Terry and Pat Kane
39	10/98	'Wingecarribee Swamp Disaster'—extracts from Emmett O'Loughlin's report on the likely causes
40	2/99	'Forest Carbon Sinks: Expanding Agro-forestry in Australia', Max Bourke
42	6/99	Wingecarribee Swamp Update 'Local Agenda 21 – Moving Wingecarribee Shire Towards A Sustainable Future', Wingecarribee Shire Council
43	8/99	'Frog Facts – Establishing Frog Habitats on Your Property', Frog and Tadpole Study Group
44	10/99	'Local Agenda 21—Why Is It Important?', Larry Whipper
45	2/00	'Let's Get Real on Conservation', Dr Judy West and Dr Robert Lambeck, CSIRO
46	4/00	'The Sustainable Village – A Win-Win Solution for Renwick?', David Tranter
47	6/00	'Engineer Goes Out On A Limb', (Newspaper article on long stem native tubestock) Di Thomas 'Native Vegetation Management – Firewood and Woodland Protection – A Burning Issue', Jason Doyle, Vic. NPA
48	8/00	'Echidnas', (Resume of Talk by Helen George 9/6/00) Lynette Skipper 'Your Handy Guide to Garbage Disposal and Recycling in the Robertson Area', Hampden Park Mgt. Committee

“Population, Demography, and Environment”

Ellen Percy Kraly
Colgate University
And
University of Wollongong

*A presentation to the
Robertson Environmental Protection Society
Robertson Community Centre
13 October 2000*

Population growth is an important component of environmental change on the global, regional and local scales. Sustained additions to the human population are beyond the capacity of Planet Earth to support; nor can the world sustain current levels of consumption and pollution. Too often, however, debates about the effects of population on the environment fail to look closely at the data on trends in population growth, or the interaction among the components of population growth, that is, fertility, mortality and migration. Moreover, population processes are considered in the abstract and outside the context of culture and human behavior. Ultimately, policies to reduce population growth must focus on the wide range of factors which influence human demography.

Demography is “the scientific study of human populations, including their sizes, compositions, distributions, densities, growth, and other characteristics, as well as the causes and consequences of changes in these factors” (Population Reference Bureau, 2000). By analyzing empirical trends and preparing likely scenarios of future population change, demographers and population scientists can help illuminate the most effective strategies for achieving global and national goals regarding population size and growth. Those goals, however, will ultimately reflect values about quality of life, patterns and levels of consumption of natural resources, equity among peoples, and environmental stewardship.

Balance among population, society and natural resources has been considered historically by philosophers throughout the world. The perspective which has been arguably the most resilient in western thought was formulated by the Reverend Thomas R. Malthus in his 1798, “An Essay on the Principle of Population,” published in 1798 as a short monograph. In this essay, Malthus stated that a law of population existed such that while population grows exponentially, food production can only be increased arithmetically. Hence, there exists inherent population pressure on natural resources.

The Malthusian equation has in recent decades been expanded to include, in addition to food resources, energy, environmental health, wilderness, biodiversity, climate and pollution. While a Malthusian perspective is helpful in organizing general relationships, on both the conceptual and empirical levels, its simplicity hinders real world debate about specific policy initiatives to foster ecological balance and environmental sustainability. For example, population growth in and of itself is a rather abstract concept – growth, positive or negative, is the demographic residual from births (fertility), deaths (mortality), and migration in and out of a population. These population *processes* reflect in turn among the most intimate of human experiences, experiences which are deeply embedded in culture, human values and attitudes, and family dynamics and economy. Moreover, policies to change rates of population growth (reducing growth in the case of many developing countries, or increasing growth, in the

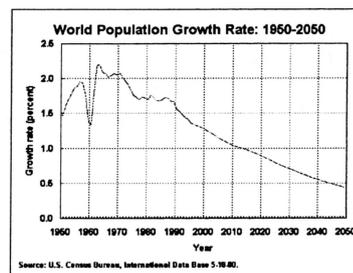
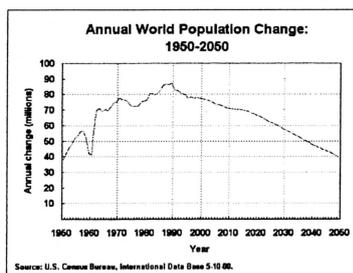
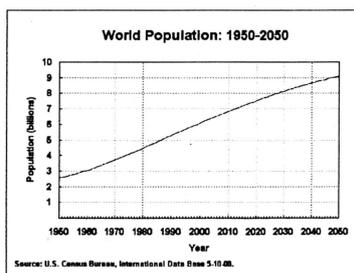
case of many European countries) require influencing one or more of these three components of population change.

During the past year (1999-2000) global population growth was about 1.3 percent, adding approximately 77 million persons to the world's population. These are alarming numbers. If this rate were sustained indefinitely, exponential growth in population would occur. But as the charts shown below reveal, while the world's population is indeed increasing, it is doing so at a *decreasing* rate. Since the mid-1960s, the annual rate of world population growth has been declining, and since the peak in the late 1980s, annual additions have also declined. In fact, in 1998 the United Nations found it had to revise its long-range population projections in order to take account of the unexpected speed of decline in fertility in many developing countries which occurred during the 1990s.

Among the three components of population change, fertility is the most important in influencing levels of population growth over the long-run, on the national and global levels. In the past few decades of field research, population scientists have learned a great deal about the factors which influence levels of fertility, particularly in developing societies. Levels of infant and child mortality are critical: in agrarian based communities, children are needed for labour both within and outside of the home, and as a source of social support for ageing parents. With improved child survivorship, families can reduce numbers of births in order to achieve their ultimate desired family size. Patterns of lineage and inheritance continue to be related to reproductive behaviors, particularly in societies in sub-Saharan Africa. The social and economic status of women and girls is also a critical factor in fertility. Increased education and literacy levels of women and girls are strongly related to lower levels of fertility within a society. In nearly all societies, economic opportunities for women also translate into both delayed child-bearing and smaller families.

Each of these correlates of lower fertility levels points to appropriate strategies for reducing population growth: improved health and welfare, and increased educational and economic opportunities for women. By introducing policies and programs to address these goals for enhanced social and economic welfare, nations and communities can foster lower levels of growth throughout the world's populations.

Of course, moving toward zero population growth will not in and of itself lead to environmental sustainability. Levels of consumption of natural resources and pollution are currently highest among developed countries which are also characterized by very low levels of population growth. In the end, even if the world's population was stationary, that is, with an annual population growth rate of zero, any positive rate of consumption of natural resources, or pollution, will ultimately lead to ecological degradation. Thus, protection of our environment, both globally and locally, requires effective measures to both continue the trend toward lower fertility and encourage the reduction of consumption and pollution.



ON KEEPING A RURAL VILLAGE A RURAL VILLAGE

Some thoughts on village architecture

This essay is a revised piece written a number of years ago asking residents to think about the village in which they live, to think about what it means to them and to imagine how it might be in the future.

"The concept of a village is not only physical but also has emotional and spiritual elements." How can a rural village hold on to its special characteristics in the face of modern development?

BALANCING THE OLD AND THE NEW

The following thoughts are those of Peter Bridges, a restoration and conservation architect, and would no doubt express the feelings of many people.

"A belief in development, often for its own sake . . . has increasingly affected the stability of both the natural and man-made environments . . . modern urban conditions often fail to satisfy some of the real and basic needs of life.

The disappearance of familiar landmarks and rapid changes in our surroundings can lead to a sense of insecurity. A 'built' environment should give a feeling of continuity and maintain a balance between the old and the new. A living community must possess visible reminders of the past as a stable and relevant backdrop to the activities of the present." (1974)

A VILLAGE STYLE?

Is it possible to protect the key elements of a village environment that many people value?

Many who have appreciated the rural village qualities of Robertson, feel that it would be a shame for this character to be ultimately lost in a sea of today's suburban-style brick and tile development.

Perhaps one way to reinforce some rural village character would be to encourage more "rural village" architectural styles. However, this should not mean the mass building of period reproductions! On the contrary, modern buildings that incorporate energy efficient design principles could be aesthetically linked with local heritage building forms through the use of certain building elements that characterise Robertson's older village buildings.

"New constructions can reinforce the existing building pattern and provide contemporary forms and amenities among the old structures."

ROBERTSON'S VERNACULAR CHARACTER

You need go no further than the main street to see examples of Robertson's earlier architecture - the 19th century vernacular verandahed cottage (the verandah is not usually bullnosed as in other areas of Australia) and, less commonly in the village, the later Californian Bungalow style often sporting a large front porch with thick pylon supports.

These different building styles also have a lot in common being unpretentious single storey buildings with high pitched gabled roofs of corrugated iron and walls clad in painted weatherboards.

They are not overly adorned with fancy trimmings, windows generally have no more than four panes and floor levels are usually a few steps above ground level (a wise feature in a high rainfall area).

CONTINUITY

It would be possible to draw on these features to create modern houses with a "village" character, perhaps even a unique Robertson character in order to keep a "feeling of continuity" and "a balance between the old and the new".

A few newer houses in the village do display some of the architectural features mentioned. However, it is also important to have a building compatible with surrounding buildings lest "new and incongruous neighbours throw the adjacent streetscape into chaos".

Complementary building materials, colours and building proportions along with thoughtful siting and landscaping can create a harmonious relationship between new and existing buildings and also express individuality.

Other benefits may also be derived from a sympathetic approach to building especially in heritage areas.

"... old houses are often found in clusters with a strong group identity, an identity which is greater than the immediate visual effect of the individual components, generating in its residents a sense of common identity and social cohesion".

A SENSE OF SCALE

A feature of Robertson noted in the Wingecarribee Heritage Study is the areas of open space. Whilst this may be difficult to retain in some areas of the village as development and subdivision occur, it emphasises the importance of the lateral spatial relationship between buildings and maintaining smaller-scale buildings in proportion to the block size. This scale is important to perpetuating the architectural and landscape qualities of the village.

With thoughtful planning and simple guidelines for new development, some of Robertson's rural village qualities could be perpetuated.

Quoted texts from: Tanner, Howard and Cox, Philip. Restoring old Australian houses and buildings: an architectural guide. Macmillan, 1975.

Robyn Williams

FUNGI DON'T HAVE LEAVES, DO THEY?

In March, while searching for the log on which I had previously found a mass of bright turquoise sequins, a fungus, (*Chlorociboria aeruginascens*), I found what I thought to be four small white mushrooms. In the dim rainforest light, they looked different, so I collected one and took it home. Under the microscope it appeared to be similar to a stalked birds nest fungus (*Nidula* sp) BUT IT HAD LEAVES! I think my question to microbiologist Tom May was along the lines of---"Is it a fungus. I think it has leaves?"

I knew my find was important when I received a reply from Tom, by return mail. I had found the seed pod of a very interesting and unusual plant that lacks chlorophyll, a *Thismia*.

As only one species of *Thismia* had been described for Australia --this species had never been found in my area-- and there was the possibility of finding a new species, I checked the location each week until early December. The bud I had been watching for weeks had been broken off and I idly prodded the club of a whitish coral fungus-- The leaf litter fell away and instead of a coral fungus, a *Thismia* flower appeared. This has since been confirmed as a new, previously undescribed species that is to be named after coral fungi, either *Thismia clavarioides* or *Thismia clavulinoides*.

A *Thismia* is a remarkable plant that spends most of its life underground, with only parts of the flower sometimes emerging out of the leaf litter. This species is translucent white except for emergent 'horns' of some flowers being pale orange. It grows in a symbiotic relationship with a fungus, which in turn is associated with the root systems of forest trees. Little is known about its pollination or seed dispersal.

The most likely discoverers of *Thismia* are 'fungi people' or naturalists 'having a pee'--, SO NEXT TIME YOU NOTICE THE CLUB OF A CORAL FUNGUS, OR A BIRDS NEST FUNGUS, LOOK TWICE BEFORE WALKING ON. YOU TOO MAY DISCOVER A *THISMIA*.

