

Our Environment

Christchurch City Council's Environmental Newsletter

ACTIVITY NEEDED INSIDE THE SQUARE

The Square needs activities that become a routine part of life for Christchurch people, according to a leading urban designer.

Whether those activities involve people sitting at cafe tables with friends, buying stamps or selecting fresh produce every Saturday morning, the Square must become a part of their everyday lives, says Nicole Lauenstein, Architectural Design Faculty Director of the Design and Arts College of New Zealand. At present many locals use it simply as a thoroughfare because there is little to involve and interest them enough to stay.

Ms Lauenstein, who has a masters degree in architecture and an urban design degree, has worked on high-profile projects including the velodrome for the Sydney Olympics. Based in a building "behind" the Square, she has watched the new design take shape and the resulting controversy over its paving and scale.

Asked to comment on the new Square, she says the City's prime urban open

space has a lot going for it. The height of surrounding buildings is in proportion to the scale of the Square while the open design is visually appealing and relates well to the remaining heritage buildings. A hard surface is necessary to fulfil its civic functions as an urban centre and provide access to all points of the City. The trees and the link between the Cathedral and Worcester Boulevard are both very positive features. However, to get the Square to "work", she believes it is important not to get too hung up on design issues.

"The Square is a stage for people to act on," says Ms Lauenstein. "Those responsible have to provide the props." It must become more and more a local Christchurch space with activity around the clock.

She says the corner of the Square by the Old Post Office works well with people happy to sit in the sun and observe. At lunchtime the Wizard is very much a Christchurch institution and Friday concerts generate activity

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CHRISTCHURCH

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and colour. If the police kiosk stays, it should be revamped and opened up for a new use to counterbalance activity in the old Post Office corner. It would make a great café, Ms Lauenstein says.

More people living in vacant space in buildings around the Square would inject new life. A sculpture or other feature that appeals to children is also necessary to cater for their needs.

However, she says too many ground floor spaces like those in the BNZ and ANZ banks are shut off from the Square and contribute nothing to the public space. These ground floor areas need to be opened up and offered back to the community. The open area in front of the BNZ building would be a perfect spot for a Saturday morning produce market.

Even with its open design the Square still has access problems, she says. The cathedral cafeteria and war memorial effectively cut the urban space in half and prevent a flow of foot traffic to Warners, the Press and down Worcester Street. These large structures are now a part of the Square but access could be improved to encourage people to walk through.

The raised concrete rim on the other side of the cathedral should also have wide openings to encourage people to walk through, past the new columbarium. Cathedral parking makes the highly visible central area look cluttered and the iron fence at the rear of the cathedral is also a visual barrier



for passers by. "Cathedrals don't need to be fenced in," says Ms Lauenstein.

At present, some pedestrian areas are blurred around the edges of the Square and jumbled parking also deters foot traffic. She says most parking should be banned from the Square and only be allowed if it is related to a business activity around the perimeter. Pedestrians should have priority and any traffic should be slowed right down to about 10kph.

However, she would also like to see more tram stops in the Square and believes buses and taxis are a positive feature because they generate regular activity in the City Centre.

Ms Lauenstein says people should be drawn into the Square visually. Paving along alleyways leading into the Square and across some intersections on the periphery would help achieve this. Putting more inanimate objects such as planters on the Square could create unnecessary

obstacles and would not solve existing problems. Only new uses and activities would do so and these need to evolve.

"Decisions made now must be considered very, very carefully," says Ms Lauenstein. "It needs real understanding of how the Square works and what people actually want from the space. It involves looking at what people do, then interpreting all these things correctly. It has to be a people's place."

Jennie Hamilton

SQUARE DESIGN MEETS OBJECTIVES - ARCHITECT

The redevelopment of the Square at last provides a clear structure for the City's key open space, says David Sheppard, one of the architects primarily responsible for the design concept adopted by the City Council in 1997.

He believes it's time for the Council to publicly support the new-look Square and to work closely with surrounding property owners and the community to maximise opportunities that the layout now offers.

The Council must ensure that planned artworks are put in, and manage maintenance and events. Temporary planting, if desired, can be an interim measure until the trees grow and more objects such as the Chalice sculpture are in place.

"The Council needs to push the property owners to open out wherever appropriate to provide life around the edge and to introduce improved traffic and parking management," says Mr Sheppard. "Bollarding of some areas is acceptable and



recommended to prevent ad hoc parking in the Square."

Plans for the final stage of the development – after the buses have been rerouted – have been developed. He says the overall design is an accurate response to the Council's brief. Its key objectives were to re-establish the Square as the City's premier urban space and to give pedestrians priority over motor vehicles.

Other objectives included the removal of visual clutter

including barrier walls and trees placed over the years in haphazard places; replacing the lighting with a more pedestrian friendly lighting level, and encouraging owners of the surrounding buildings to open out into the Square.

The \$8 million price tag for the Square's redevelopment relates more to the sheer scale of the space than the use of expensive materials and ideas, says Mr Sheppard.

GETTING OUT OF THE CLASSROOM AND INTO THE 'WILD'

Why sit in the classroom to study New Zealand's native bush, those wonderful wetlands, our geological and cultural past, or how garden compost is made, when you can actually experience it?

The Council has been host to many schools that have taken advantage of opportunities to visit Christchurch's parks, waterways, heritage sites and waste facilities. To build on this successful relationship the Council is developing an environmental education programme.

This schools-based programme emphasises hands-on learning, giving students the opportunity to experience their local environment through exciting activities in all curricula learning areas, particularly science, social studies and technology.

Students can expect to have their awareness raised, and their ideas and values challenged. They will also be given opportunity to participate in the protection and management of their environment through taking positive action both on site and back in their schools. This empowerment of young people to show concern for and be involved in the future direction of the City is a key objective of the Council, and one that it is keen to see met through student-driven initiatives.

For teachers the programme offers out-of-the-classroom learning experiences which are linked to all learning curricula. Council educators who are involved with site visits are experienced in sharing their knowledge of the area in interesting and age-appropriate ways.

Teaching support is also available through pre-visit and follow-up sessions in the classroom to ensure students get the most from their visits, and to help both teacher and students to identify what actions they can get involved in.

The programme runs for all four terms of the school year, is available to primary and secondary school students and best of all it's free! If you would like more details you can contact the co-ordinator, Janice Beaumont, by phone (03) 371 1298, fax (03) 371 1987 or email janice.beaumont@ccc.govt.nz

(For bookings see below for programme and direct contact details.)



Students from Rowley School ready to embark on their visit of Travis Wetland. They were the first class to try out the new set of gum boots made available by the programme for such visits. To add to their experience the students planted native vegetation by the track between the Central Ponding Area and Mairehau Road car park.

Environmental Education Programme

for learning experiences outside the classroom

| Site | Educator | Phone | Fax | Email |
|---|-----------------|----------|----------|--|
| Beach Parks | Rodney Chambers | 382 9527 | 382 9527 | rodney.chambers@ccc.govt.nz |
| Bromley Refuse Station/ Garden City Composting | Chris Duggan | 384 0812 | 384 0824 | |
| Bottle Lake Forest Park | Warren Hunt | 383 2389 | 383 3843 | warren.hunt@ccc.govt.nz |
| Botanic Gardens | Brian Appleton | 364 7590 | 366 6836 | |
| Halswell Quarry Park | John Moore | 322 4035 | 322 4035 | |
| Port Hills Reserves | Paul Devlin | 332 5627 | 332 9689 | paul.devlin@ccc.govt.nz |
| Provincial Council Buildings | Jane Ryder | 366 1100 | - | jane.ryder@ccc.govt.nz |
| Spencer Park/Brooklands Lagoon | Arthur Adcock | 329 8072 | 329 8072 | |
| Styx Mill Conservation Reserve | John Parry | 359 1357 | 359 1357 | john.parry@ccc.govt.nz |
| The Groynes | Wayne Robinson | 323 7699 | 323 9127 | wayne.robinson@ccc.govt.nz |
| Travis Wetland | John Skilton | 382 9527 | 382 9527 | john.skilton@ccc.govt.nz |

SHOPPERS SEEK OUT BARGAINS IN SUPERSHED

TVs, shoes, tools, stoves, mirrors. There's something for everyone at the RMF's new SuperShed reuse warehouse.

Situated next to the Bromley wastewater treatment plant, the SuperShed is set in landscaped grounds down Shuttle Drive off Pages Rd. Another attractive feature of the site is the nearby buildings and workshops, which could be made available to small businesses and community employment groups to upgrade goods and produce reused/recycled items for sale in the SuperShed.

The warehouse is the latest initiative of the Recovered Materials Foundation, a not-for-profit organisation set up by the Christchurch City Council to develop markets for recovered materials. The RMF has been managing the Council's recycling centres under contract to the Waste Management Unit for the past two years.

It set up the new SuperShed to look like a supermarket, with wide signposted rows of clean, displayed goods. The "shed" part of the name was derived from media personality and author Jim Hopkins' book "Blokes and Sheds". Jim Hopkins



played a major role in the launch of the new SuperShed at the end of October.

Staff have noticed a marked increase in new customers visiting the SuperShed. It now has a higher average weekly turnover than the three former recycling centres combined. Relocating the retail outlets to a central warehouse has also provided additional space for materials recovery at the refuse stations. The extra space allows more cars to pull in and out to drop off materials without having to compete for parking

space with customers purchasing goods.

Additional staff have been employed to assist customers identify and off-load reusable/recyclable materials at the refuse stations. Recovered materials are then loaded into containers for weighing and transported to the SuperShed. This is the first time in New Zealand that all recovered materials can be accurately weighed to assess the impact these centres have on wastestream diversion.

Sarah Gordon

HYBRID - CAR OF THE FUTURE

More than 60 City Council staff took to the road last month to test drive a visiting hybrid car with impressive credentials. The new generation Toyota Prius has twice the fuel efficiency of a conventional vehicle and only half the CO₂ emissions.

Feedback on the performance of the Prius was very positive. Comments included "easy to drive", "I liked the way the car performed", "I was impressed with how quiet it was", "plenty of room and good visibility". The only adverse comments were that the brakes were a little sensitive and that when the engine shut down while stopped in traffic the silence inside the car was initially disconcerting. Most said they would be happy to drive or own the Prius provided the purchase and maintenance costs were reasonable.

Given the staff response to the Prius, the Hybrid technology is clearly an acceptable alternative to the petrol-engined car. The increasing pressure on reducing vehicle emissions and from fuel price rises, combined with production cost reductions and clever technology, means that the Hybrid



car is likely to be the next generation of vehicle.

The Toyota Prius design philosophy is to incorporate a hybrid drive system within a standard production type car ie steel body panels along with all the features normally expected in a car of the type. The Hybrid differs from an ordinary car in that it has a petrol engine and an electric motor drive plus batteries.

Its sophisticated on-board energy management system monitors the car's energy demands then adjusts the power supplied by the petrol engine and electric motor to minimise the energy use and hence vehicle emissions. What this means is that energy balances are continuously changing while driving. Fuel consumption during the trial was 6.4 litres/100km (44 mpg).

Toyota has not released these cars for sale nor confirmed the cost. However, when it does, provided purchase and operational costs are reasonable, we can expect to see these cars on our roads reducing emissions, saving fuel and keeping the inner city noise down.

Paul McNoe

GREEN LIGHT FOR 'OUR CITY' INFORMATION AND RESOURCE CENTRE

A new information and resource centre known as 'Our City' will be established in the former Municipal Chambers. Christchurch City Council last month approved the setting up of the centre in the historic red-brick building on the



corner of Oxford Terrace and Worcester Boulevard.

The centre, to be used by the public, the Council, interested professionals and community groups, will be:

- A resource centre where information, plans and data about Christchurch City are brought together;
- A focal point for education about the City's environment, its past, present and future;
- An information centre where details plans and maps of current new development projects, buildings and subdivisions could be displayed;
- A centre where details such as a comprehensive list of historic buildings, creative housing projects and conservation parks are available to visitors;
- A place where the historic development of the City could be displayed by maps, modules, aerial photographs and computer simulation.

Community groups connected with environmental issues could also be located in the building, which was vacated by Christchurch & Canterbury Marketing earlier this year. One of the major benefits of the 'Our City' centre is that it will be a one-stop shop for the general public to find out about environmental issues. Groups can showcase new initiatives that will improve the local environment and help the City achieve its aim of environmental sustainability.

The building, registered as a Category 1 historic building by the NZ Historic Places Trust, is itself recognised as having outstanding historical significance. It was designed in 1887 by prominent local architect Samuel Hurst Seager, who opted for the then popular Queen Anne revival style for the new civic chambers. The Council will next year embark on a three year programme to restore brickwork, stonework, window joinery and the roof of the building.

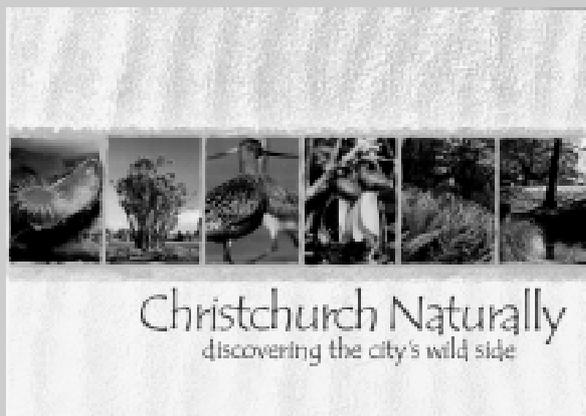
Jennie Hamilton

CHRISTCHURCH NATURALLY – DISCOVERING THE CITY'S WILD SIDE

A new book highlighting and celebrating Christchurch's natural treasures will be available later this month. Produced by the City Council, *Christchurch Naturally* is filled with images of local indigenous plants, insects and animals, and their natural settings.

The text is designed to illustrate the fascinating images and reminds us why we must cherish the City's biodiversity. Almost 25 per cent of nationally threatened flowering plants, including the very rare pygmy button daisy and a native forget-me-not, survive in or around Christchurch. Of New Zealand's threatened animal species, 15 per cent occur in Canterbury.

The book explores the diversity of native species in our four main ecosystems – the coast, wet plains, dry plains and Port Hills. It then emphasises the opportunities for rebuilding Christchurch's biodiversity in the urban area by planting locally-sourced indigenous plants.



Produced by a working party of experts on the City's natural resources, *Christchurch Naturally* is inspirational rather than technical. "We wanted Christchurch people to feel excited about the fascinating and wonderful nature we have right under our noses in the City," said Dr Diane Menzies, the leader of the working party. "We have plants and animals here that are no where else in the world. We also have remnants of the special features of Canterbury and New

Zealand and conserving those natural communities...is important. We hope this book will be a stepping stone to encouraging even more understanding and protection of the City's natural assets."

Costing \$24.95, *Christchurch Naturally* will be available in City bookstores, the Civic Offices and City Council service centres and libraries.

DRAFT PLANTING STRATEGY SEEKS DIVERSITY

Both exotic and native plants have essential roles and functions in the greening of Christchurch, according to a draft strategy for City-wide planting. Planting in public spaces should reflect the wide spectrum of planting types and environments in the City, it says.

Variations in planting have evolved primarily from the soils and original vegetation cover, changes imposed by European settlers and the establishment of Christchurch City since 1850, and recognition of the importance of enhancing indigenous biodiversity. "It is important that this range of planting types and functions is maintained to provide both balance and diversity," says strategy author Liz Briggs, Senior planner, Conservation.

Main aims of the strategy are to:

- Put the right plant in the right place;
- Maintain and enhance the Garden City image;
- Reflect the diversity of planting styles and species in the City;

- Promote biodiversity;
- Provide a planting framework for the City that is functional, imaginative and sustainable.

The strategy includes a set of policies and a process that form a framework for planting design on public land throughout the City.



This process involves a detailed analysis of the site, followed by the function of the planting, the form or type of planting, a planting plan and, finally, choice of plants.

The exotics versus native debate attracts strong advocates on both sides. Liz Briggs says she seeks to reconcile different viewpoints and priorities by proposing that, generally, function should dictate form. This approach provides for varied types of planting, from primarily "amenity" planting in the City Centre, to planting that will promote biodiversity in conservation areas along the coast and on the Port Hills.

A strategy is needed to underpin rational planning and decision making. "The Council currently invests significant resources in planting, establishment and management, without any overall co-ordination," she says. "A strategy will allow differing (and occasionally conflicting) viewpoints and priorities to be reconciled in a public document identifying Council objectives for City-wide planting."

The draft planting strategy will be available for public comment next year after feedback from staff and politicians has been considered.

NATIVE MISTLETOES BRING THEIR OWN FESTIVE TOUCH

Red-flowered mistletoes add their own dash of Christmas cheer to South Island vegetation in December.

New Zealand's eight unique mistletoe species include the red mistletoe (*Peraxilla tetrapetala*) which has bright red flowers and insect galls or bumps on its leaves. The scarlet mistletoe (*Peraxilla colensoi*) is very similar but has larger leaves and flowers.

Both are called beech mistletoes because they grow mainly in the southern beech forest.

Their explosive flowers are specially adapted to be opened by native birds such as bellbirds. The bird twists ripe buds with its beak and the petals spring open, showering the bird with pollen. The bird then delivers this pollen to the next flower it visits. Pollination produces fruits that are eaten by native birds which deposit the seeds on other suitable host trees. Mistletoes use specialised roots to get water and nutrients



Peraxilla colensoi (scarlet mistletoe)

from the host tree rather than the soil. Unlike many mistletoes in other countries, NZ varieties do not harm the trees they grow on. They help birds because they are one of the few plants in beech forests with available fruit and nectar.

Beech mistletoes, which also include the yellow mistletoe (*Alepis flavidata*), are increasingly threatened by introduced brushtail possums, which eat the leaves, flowers and fruits. The killing of native birds by predators such as stoats and rats is also a concern. Fewer birds means less pollination and dispersal of seeds. The Department of Conservation has introduced a comprehensive management programme aimed at simultaneously controlling many pests including possums, stoats and rats.

For more details see www.pams.canterbury.ac.nz.

Information provided by the Department of Conservation

ENVIRONMENTAL AWARDS ANNOUNCED

Special environmental awards to mark Canterbury's 150th anniversary have been announced by the City Council. They were presented during the annual environmental awards ceremony in the Bellamy's wing of the Canterbury Provincial Council Buildings on December 15.

In the built environment section, the Provincial Council Buildings received the award in the 1850-1900 category. Described as the most outstanding of the Central City's Gothic Revival buildings, it is the only purpose built provincial government complex still standing in New Zealand. The Cathedral of the Blessed Sacrament (see below) was the recipient in the 1901-1950 category, and the Christchurch Town Hall, designed by Sir Miles Warren, received the award for the 1951-2000 category.

The award in the natural environment's 1850-1900 category went to Hagley Park, described as a legacy of



careful Victorian urban planning and the City's most significant park. Riccarton Bush, standing in "splendid isolation" in the middle of the City, received the award in the 1901-1950 category, and Victoria Square, "an outstanding public green space within the Central City", was the recipient for the years 1951-2000.

In the year 2000 environmental awards, the New Brighton Library, Pier and Clock Tower received the award for the built environment for providing a much needed community and urban focus to the seaside suburb. The award for the natural environment went to the McLeans Island area for providing a major recreation asset while retaining its primary flood protection function. One of the City's most successful community groups, the Christchurch Beautifying Society, received the award for services to the environment.

CATHOLIC CATHEDRAL AN IMPRESSIVE LANDMARK

The imposing Cathedral of the Blessed Sacrament in Barbadoes St has long been recognised as one of the finest examples of ecclesiastical architecture in New Zealand. Even playwright George Bernard Shaw praised architect-engineer Francis Petre as a New Zealand Brunelleschi for his innovative touches in the neo-classical building in Barbadoes St. Now the Catholic Cathedral has received a special 150-year environmental award from the Christchurch City Council.

The cathedral's consecration in February 1905 followed six tempestuous years of planning, cost concerns, refinements and construction. The Rt Rev Dr John Joseph Grimes, Roman Catholic Bishop of Christchurch, dreamt of a cathedral that would honour God and grace the rapidly developing City of Christchurch.

He originally intended to build an essentially Gothic cathedral, in keeping with contemporary thinking. However, Petre convinced him that a neo-classical basilican plan was a better option in earthquake-prone Christchurch. Also the latter was more suited to concrete construction favoured by Petre, and it would be less costly. Even so, the architect's plans had to be scaled down by a quarter to reduce costs.

Contractors J and W Jamieson took four years to build the cathedral measuring 64m by 32.3m and requiring more



than 3.36 cubic metres of stone, 112 cubic metres of concrete and more than 80 tonnes of steel. Its construction is recorded in a photographic display in the gallery.

Although the cathedral's original style is based on the old Roman basilicas, there are important differences. For example the 41m dome is placed above the sanctuary instead of above the junction of the nave and transept. The great weight of the dome rests on four modelled piers and arches leading up to a cylinder of Corinthian columns and an inner dome. This great space, combined with the colonnaded apse, is one of New Zealand's finest works of architecture," says Sir Miles Warren, who has directed the building's conservation since the 1970s.

The ambulatory and gallery provide a feeling of space and the beauty of the interior is further enhanced by traditional and modern stained glass windows, mosaic tiling in the sanctuary and

ceilings of embossed zinc.

With its imposing columns, tall-domed towers and majestic dome, the cathedral is a landmark in the south of the City. Ornately carved Oamaru stonework softens the vigorously modelled exterior. The overall result is "the grandest, most commanding neo-classic building in New Zealand", says Sir Miles.

Jennie Hamilton



CITY COLOUR

Look out for colourful new banners which line City streets and promote Christchurch wetlands, birds and local biodiversity. All three new designs are expected to be erected before Christmas. They replace the seasonal floral banners.

ENERGY FAIR

Canterbury's first Sustainable Energy Fair will be held at Cashmere High School on 27 & 28 January 2001.

The purpose of the fair is to promote renewable/alternative energy solutions to the general public. Suppliers of renewable energy equipment will discuss solar hot water, solar electricity, heat pumps, micro-hydro electricity, wind generation and other technologies. Entry charges are \$2 for an adult and \$5 for a family.

RICCARTON BUSH A CITY TREASURE

Riccarton Bush, in the heart of Christchurch, is one of the City's most important natural treasures.

Known to Maori as Putaringomotu, the 7.7 hectare native forest is the last in the line of similar forests that occupied the site of Christchurch over hundreds of thousands of years. Huge gnarled surface roots support 25 metre kahikatea, New Zealand's tallest growing species. They tower over smaller native trees and shrubs.

Riccarton Bush recently received the City Council's 150-year award for the natural environment, 1901-1950. It was presented to Charles Deans, chairman of the Riccarton Bush Trust and member of the Deans family, who

gifted the bush remnant to the people of Christchurch. The bush is protected by the Riccarton Bush Act 1914 and administered by the Trust.

Changes in management style, including a stop to mowing under trees and better weed control, have allowed prolific regeneration of indigenous vegetation. Now ferns, grasses, sedges, lilies and mosses cover the ground. The bush is also home to native birds such as the wood pigeon, fantail and grey warbler and an array of moths, beetles, bugs and colourful flies.

The 12 hectare Riccarton Bush Reserve, by the Avon River, also includes 150-year-old oak trees and historic buildings.



A GREEN LIST

Climate Change

The recent UN conference on climate change in The Hague has seen comments on global warming ranging from dire warnings of the consequences if we do not act, to claims that humans have no influence on climate at all. Reading available on the subject at Christchurch City Libraries is equally wide ranging. It includes a variety of interesting items, such as titles by New Zealand's own sceptic Peter Toynbee (**'Frustrations of a greenhouse dissenter'**, **'Greenhouse: the biggest rort in Christendom'**), studies on what's likely to happen to Christchurch (**'Implications of climate change for Christchurch'**) and criticism of New Zealand's response to calls for action (**'Burning issues'**). Whatever your opinion, find out more by reading one of these books.

Burning issues : the failure of the New Zealand response to climatic change by Alexander Gillespie (551.6 GIL)

Beating the heat : why and how we must combat global warming by John Berger (363.7387 BER)

Climate change and the global harvest : potential impacts of the greenhouse effect on agriculture by: Cynthia.Rosenzweig (338.14 ROS)

Frustrations of a greenhouse dissenter : the scientific solution to a non-existent problem by Peter Toynbee (551.6 TOY) (Reference only)

Greenhouse : the biggest rort in Christendom by Peter Toynbee (551.6 TOY)

Is the temperature rising?: the uncertain science of global warming by S George Philander (551.6 PHI)

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Te Whare Pukapuka Aa Iwi Otautahi