BOFFA MISKELL
planning • design • ecology

news:

issue number: 01

A viaduct in the valley 03

The new viaduct in the Otira Valley 'flows with the grain of the land', following a collaborative effort between our landscape architects and ecologists, and the engineering team. See page 3 inside.

Ecology at the heart of the matter 04

Why we started hiring ecologists years ago, and have embraced more and more ecological expertise since [ ]. The Albany to Puhoi highway realignment is a working example of ecologists in action – see page 6.

Capital heritage inventory 05

We lead a team taking a novel approach to making an inventory of Wellington city's built heritage: identifying buildings that reflect themes in the capital's development, rather than 'those that look pretty'. S .

Boffa Miskell NEWS
& PROJECT INFORMATION

summer 2000

Welcome to our new **news:**

Recently Boffa Miskell achieved 25 years of professional service. To our many clients, consultant colleagues and friends, thank you all for your trust and support – without you we would not have reached this important milestone.

While it is tempting at such a time to reflect on our past successes, we have chosen to mark the occasion by starting something new: this newsletter aims to keep you up-to-date with practice initiatives and recent staff appointments, and to present projects that demonstrate our commitment to sustainable solutions to issues affecting our environment and communities. No better way, we believe, to illustrate our practice vision and direction, than with accounts of real work done.

Boffa Miskell has experienced its own growth spurt in recent years. We've evolved from a landscape design practice into an integrated environmental planning and design consultancy. We now profess to three core disciplines: planning, design and ecology. On these we base the integrated approach that has become the Boffa Miskell hallmark.

Thank you once more for your support and interest. We look forward to working with you again on the journey to our next milestone.

Frank Boffa, BOFFA MISKELL Limited

Boffa Miskell NEWS
& PROJECT INFORMATION

summer 2000

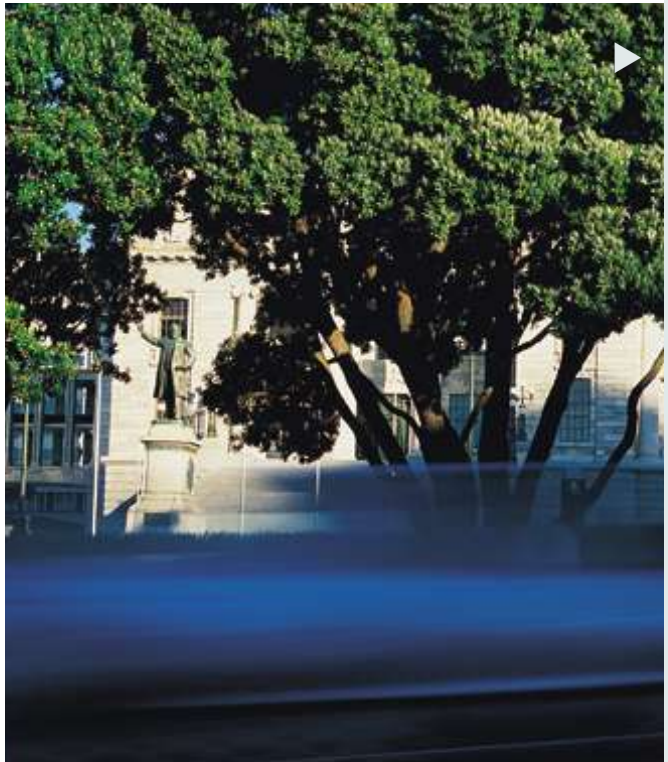
*This **news**letter is published three times a year by* Boffa Miskell Ltd.
DESIGNED AND PRODUCED BY: **native** ltd, Wellington
COPY PREPARED BY: WHAM Group Ltd.
PRINTED IN WELLINGTON BY: Thames Publications Ltd.

New chairman for Boffa Miskell Ltd

At the end of 1999 Frank Boffa stepped aside as managing director and chairman of Boffa Miskell. He will continue as a director and shareholder of the company and will work full time on project work, client liaison and project development.

Don Miskell, who has been with the company since 1977, has been appointed by the board as new chairman. There will no longer be a managing director; instead we will have a management team made up of the regional and office managers of the core and satellite offices of the company.

Don looks forward to the challenge of leading a successful company that has focussed on adding value to our clients' assets through partnership, innovation and quality.



dispatches

Orewa – planning for growth

Orewa is a coastal community in the path of Auckland's northward growth. Confronted by growth pressures and a proposed motorway bypass, Orewa appointed Boffa Miskell to work with the community to develop a long-range vision and action plan for the town.

A major consultation exercise followed, resulting in strong community consensus and the 'Vision for Orewa' long range plan, which was adopted by the Rodney District Council in 1998.

Boffa Miskell has since developed design concepts reconnecting the town centre and its beachfront, and is advising the council on growth planning and urban intensification.

CONTACT: DOUG LEIGHTON 09-358 2526

Parliament refurbishment

Sometimes our work does involve cutting out trees. When Boffa Miskell was asked to take responsibility for the landscape design around the refurbishment of Parliament Buildings, our advice was to remove or relocate a considerable number of trees and other vegetation. The greenery had been planted over a long period, much of it apparently without adequate thought of what it would be like at maturity.

The result of the 'judicious pruning' has been a much simpler and stronger landscape, that complements the magnificent refurbishment of the Parliament and the adjoining General Assembly Library.

CONTACT: STEVE DRAKEFORD 04-385 9315

Otira Viaduct, State Highway 73

With the grain of the land

The new viaduct in the Otira Valley 'flows with the grain of the land', following a collaborative effort between Boffa Miskell landscape architects and the engineering team.

The viaduct, which bypasses unstable slopes in the heart of Arthurs Pass National Park, was officially opened in November 1999. Boffa Miskell ecologists and landscape architects were part of the team led by Beca Consultants, which assisted Transit New Zealand to plan, design and build the 440 metres of raised highway.

Boffa Miskell's role was to assess the visual and ecological effects of various bridging options, as well as the design and oversight of the restoration programme and kiwi and weed monitoring, in this highly sensitive alpine environment.

The visual assessment assisted the engineering and design team to evaluate the range of options for the final structure. Their final choice was a design which 'flowed with the grain of the land', yet met structural, financial and feasibility criteria.

The project places an emphasis on minimising effects of the construction on native plant and animal communities. Three monthly monitoring of the local kiwi population (just five birds) appears to indicate that the project has not affected the birds.

▲ The Otira Viaduct follows the natural lines of the gorge: meeting engineering requirements with a design that looks at home.

◀ Detailed survey formed the basis of revegetation of the construction site.

The revegetation plan produced by Boffa Miskell and approved by the Department of Conservation, concentrated on getting the conditions right for natural revegetation to take place over time, while starting the process with seedlings and saplings collected from plant communities nearby.

The Otira viaduct construction has been hailed as a major success, and is regarded as an excellent example of engineering works in a special environment. **PROJECT TEAM: DR JUDITH ROPER LINDSAY, DON MISKELL, ALLAN RACKHAM, DIANA ROBERTSON, DUANE TE PAA**

dispatches *continued...*

Auckland International Airport

Boffa Miskell has been helping Auckland International Airport to improve the environment of the place 'Where New Zealand touches the world'.

The privatisation of the airport, rising international visitor numbers and major events such as APEC and the America's Cup have prompted major developments at the airport – now of such size and diversity that it is a 'town centre' in its own right.

Boffa Miskell's assignments since 1990 have included preparation of an overall landscape concept for the airport, including detailed designs and implementation; and urban design guidelines and master planning of the Airport Business Park and associated Industrial Park (with Kingston Morrison).

CONTACT: JOHN GOODWIN 09-358 2526

Pegasus New Town, Waimakariri District

Boffa Miskell has designed and planned a new Canterbury township for 5000 people featuring a major wetland restoration of significance to tangata whenua. The work is on behalf of Southern Capital Ltd, developers of Pegasus New Town 15 km north of Christchurch.

A Boffa Miskell multidisciplinary team of ecologists, landscape architects and planners has managed the community impact assessment, reviewed recreation and nature conservation issues (including an Assessment of Environmental Effects), and designed the 90 ha urban wetland area of predominantly native vegetation to gradually replace a willow swamp.

A plan change has been approved by the council but is awaiting hearing of appeals.

CONTACT: SARAH DAWSON 03-366 8891

Ecology at Boffa Miskell

In 1988 Boffa Miskell hired an ecologist, and we haven't looked back since. Eleven years later, ecology is one of the three core disciplines of Boffa Miskell, and the speciality of seven of our staff across four offices.

At the time, it seemed strange to some that a firm known for its landscape architecture would hire an ecologist. But the underlying principle that prompted the company to take on ecological expertise wasn't so silly – Boffa Miskell already held that a good understanding of the natural environment was essential to the design of developments that maintained positive environmental values. Since then, ecological analysis and advice has become a large part of our service to our clients.

The work we carry out ranges from basic site surveys of flora and fauna to complex ecological evaluations for local authorities meeting their Resource Management Act responsibilities. Our ecologists also contribute to and co-ordinate Assessments of Environmental Effects (AEEs) for resource consents.

We work with planners and designers, on an in-house basis and in partnership with other firms, to identify and resolve ecological risks in major developments. A significant component of such work is revegetation plans and replanting [see pages 3 and 6].

Our ecologists are working closely with planners and designers on projects as diverse as the Omaha Beach Estates, North Auckland; Clearwater Golf Resort, Christchurch; site selection for a Canterbury Regional Landfill; and options for monitoring the state of the environment in Ashburton District.

The constant in all this work is our commitment to following sound ecological principles to derive successful and cost effective solutions. That might sound like it runs off the tongue easy, but it is in truth the basis of a practice policy that is key to the Boffa Miskell approach: that ecology is not a science to be practised in isolation, but rather a discipline that must be integrated into many projects. It is fundamental to achieving sound environmental outcomes.

Boffa Miskell ecologists have a good grounding in the theory and application of ecological science. They include experienced policy advisors and specialists in taxonomic and interpretative work, as well as practitioners skilled in quantitative bio-assessment protocols, statistical analyses (bio-metrics), and ecological surveys (of the flora and fauna of terrestrial, freshwater and marine ecosystems).

We have recently broadened our expertise to include entomology (the study of insects and invertebrates). Animals in this group are excellent indicators of what is happening within a given habitat (terrestrial or freshwater), as within New Zealand they occupy the leading ecological roles of herbivore, predator, and scavenger, as well as their more universal roles as pollinators and decomposers.

Knowledge of such crucial species present within a habitat makes it possible to infer whether that ecosystem is healthy and functioning properly, and whether it holds appropriate resources or not (and if not, which ones are missing).

It's not all forest floor and pond bed work, however. Boffa Miskell ecologists are also involved in national environmental policy-making. Dr Paul Blaschke, in Wellington, previously worked on the draft New Zealand Biodiversity Strategy [see page 7]. Meanwhile, Dr Judith Roper Lindsay (that very ecologist whose hiring set the ball rolling in 1988) is currently serving on the Minister for the Environment's Advisory Committee which is investigating options for biodiversity planning and management.

Within the next month two more ecologists will join the staff, helping the Boffa Miskell ecology team to provide a comprehensive service across the country.

Ecology staff at Boffa Miskell:

Whangarei	• Mark Poynter
Auckland	• Dave Slaven • Dr Vaughan Keesing
Wellington	• Dr Paul Blaschke • Isobel Gabites
Christchurch	• Dr Judith Roper Lindsay • Diana Robertson

Wellington City's heritage building inventory

A review of Wellington's heritage buildings led by Boffa Miskell has taken a novel approach to the thorny question of 'what is worth saving?'

The review has used a thematic approach in creating an inventory of built heritage in the capital, rather than the 'looks lovely, let's list it' tack.

This approach involved the identification of themes in the development of the city and the identification of buildings representative of those themes. The resulting inventory includes modest through to spectacular structures, with photographic illustrations accompanied by a historian's account and a building description by a conservation architect.

Heritage precincts, where a group of buildings represent a particular historical theme, were also identified within the inventory.

Boffa Miskell has been the lead consultant for the first two stages of the inventory project, managing a diverse team of specialist sub-consultants. Some 400 buildings have been reviewed on a tight budget in just over 18 months.

The result: a comprehensive document based on very accurate information. The integrity of the information was an important issue for Wellington City Council, which needs the inventory to provide a solid basis for administration of its heritage resource management responsibilities.

The inventory was prepared in digital format and will be posted on the council's website this year. It will also be printed as hard copy and produced on CD for sale by the council.

CONTACT: MARC BAILY 04-385 9315

Government Buildings, Lambton Quay (1876).

Te Papa

Te Papa, the Museum of New Zealand, has been attracting more visitors than anticipated, inside and out.

Bush City, Te Papa's outdoor natural history area was designed and created by Boffa Miskell to a demanding brief: a diverse range of habitats set on a long narrow site, accommodating a pathway to allow a close experience of Desert Road plant communities, coastal forest, wetland, volcano, limestone tomo and stream habitats.

The good news is Bush City is working, and this area and other planted landscapes around the complex are standing up well to the harsh waterfront conditions and the high visitor numbers recorded since the February 1998 opening.

CONTACT: BOYDEN EVANS 04-385 9315

Omaha Beach Estates

This 600 unit development on the coast at Omaha, north of Auckland, is being planned as New Zealand's most environmentally sensitive coastal community. Key foredune landforms, vegetation, archaeological sites and a significant kahikatea wetland forest will be protected as part of an extensive network of open space.

Boffa Miskell has worked with Manapouri Developments Ltd since 1996, to carry the project from feasibility studies and consultation, to planning approvals, urban design and implementation.

The project concept has developed through consultation and environmental analysis by a team of ecologists, landscape architects and other specialists.

The plan change is now operative, and resource consents for the first phase have been prepared and lodged.

CONTACT: EWEN HENDERSON 09-358 2526

Lake Coleridge, Canterbury

In 1995 ECNZ applied for resource consents associated with continued use of Lake Coleridge and associated waterways for hydro-electric power generation. Boffa Miskell was contracted to prepare the Assessment of Environmental Effects (AEE). This required an integrated approach, combining specialist studies of aquatic ecology, recreation use, hydrology, landscape issues and engineering matters.

ECNZ had already started consultation with the local community. Boffa Miskell worked with this group to deal with their concerns which ranged from the effects of lake level changes on fishing access, to management of sheep around the lake edge and control of weeds in braided rivers.

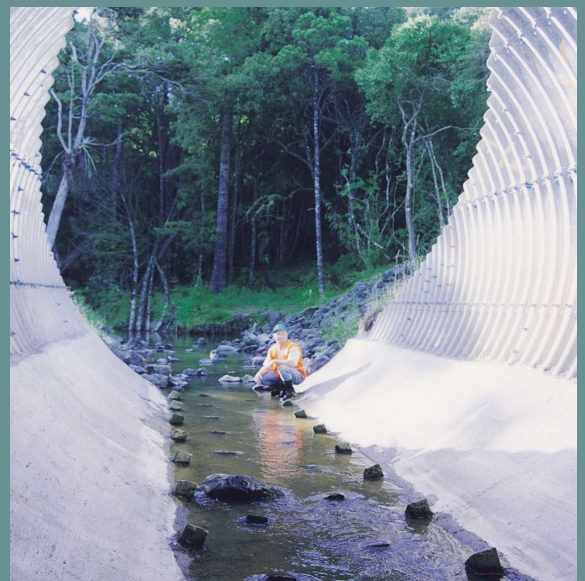
The result for ECNZ: the 56 consents were approved without a hearing.

CONTACT: ALLAN RACKHAM 03-366 8891

The Albany to Puhoi road realignment [ALPURT]

How do channels for whitebait, and bush corridors for fernbirds and skinks, become an integral part of a new highway? They have on a new section of State Highway 1, north of Auckland.

At the start of the State Highway 1: Albany to Puhoi Realignment (more commonly known as ALPURT) Transit New Zealand made a commitment that environmental damage would be kept to an absolute minimum. This is a $228 million, 29 km, three and four lane highway that includes 12 bridges, four major interchanges and 12 major culverts, and which traverses several areas of significant plant and animal habitat.



Serco Consultancy (project managers) brought Boffa Miskell in at the beginning. The brief was to identify areas of ecological risk, and to devise ways of avoiding, remedying or, as a last resort, mitigating adverse effects on the natural environment.

Where possible, the new highway's route was altered to avoid sensitive areas. However, avoidance wasn't always possible, leading to solutions like the proposed building of bridges high above the forest canopy, such as over the Otanerua Valley behind Orewa. The raising of the road here above the mixed forest and shrubland keeps existing wildlife corridors open between habitats that would otherwise have been split by the highway. The principal species of concern here were ground dwellers such as skinks and geckos, and in particular the little fernbird, a near-flightless native bird which is on the endangered species list.

At the Okura River crossing, the bridge has been built as a split carriage-way, which allows sunlight and rain water to reach the vegetation below, thereby providing for the retention of the existing wildlife corridor. In other places (such as at the Lucas Creek crossing) culverts have been built with high archways and retaining walls that make it possible for wildlife to move easily underneath the road.

In areas where fish passage to spawning grounds was an issue, Boffa Miskell worked with engineers from Beca Carter Hollings Ferner and scientists from the National Institute of Water and Atmospheric Research (NIWA) to design culverts that allowed the free movement of even young fish through them. Recent monitoring in completed sections of the highway shows that these 'fish friendly' culverts are working well.

Other Boffa Miskell work on ALPURT has included revegetation plans to restore roadside areas to their original bush types, and the identification of mitigation measures for unavoidable damage to habitats during construction, in particular the effects of sediment on streams and aquatic wildlife. As a result, high quality bush areas in the headwaters of streams have been proposed for purchase and protection by Transit. In total some 117 hectares of such bush is proposed to be set aside.

Phase One of ALPURT was opened in December 1999 and construction continues to the north. The project has been hailed as setting a new benchmark for minimisation of environmental impacts in major roading developments.

◀ FISH FRIENDLY: Ecologist Dave Slaven at a culvert that caters for un-obstructed passage of fish, by creating eddies and resting places within them.

◀◀ High arched culverts provide corridors for wildlife.

PROJECT TEAM: DAVE SLAVEN, DR JUDITH ROPER LINDSAY, RACHEL DE LAMBERT, DR VAUGHAN KEESING, CHRIS BENTLEY

staff updates

Mark Poynter

Ecologist, WHANGAREI

Mark joined Boffa Miskell in 1999, bringing with him years experience in applied environmental study for corporate and local authority clients. Mark previously operated as a consultant ecologist in Whangarei for more than years, working on reclamations, dredging, structures and discharge, including review of effects on inter-tidal and sub-tidal marine ecology, water and sediment quality. Mark has also carried out freshwater ecological investigations, particularly in relation to fisheries, water quality and flow management.

Carey Pearce

Planner, AUCKLAND

Carey came to Boffa Miskell in 1998 from the Manukau City Council, bringing with him development and management experience from senior roles. He is known for his facilitation skills with difficult projects and for his innovative approach to resource management. Since joining Boffa Miskell, Carey has successfully completed a number of high profile assignments and will share Auckland office management responsibilities with John Goodwin this year.

Rebecca Skidmore

Landscape architect, urban designer
AUCKLAND

Rebecca also came to Boffa Miskell from Manukau City Council. She has considerable experience in local government and district plan development and administration, with a particular emphasis on landscape and urban design matters. Rebecca's particular skills are in broad scale urban design strategies for creating more liveable urban environments.

Isobel Gabites

Environmental graphics
WELLINGTON

Isobel brings to Boffa Miskell a wealth of skills in natural history interpretation, environmental graphics, and ecology. For the past nine years Isobel has run her own company, specialising in interpretation and information graphics with a focus on natural history and ecology. She combines an ecological background (botany, geology and soil science) with writing skills – she is the author of several popular titles, including the recent *The Native Garden: Design themes from wild New Zealand*. Isobel's skills and extensive track record in 'built' natural history interpretative work will be available for Boffa Miskell clients nationwide.

Dr Paul Blaschke

Ecologist, WELLINGTON

Paul came to Boffa Miskell in 1999 from the Office of the Parliamentary Commissioner for the Environment where for six years he was principal environmental investigator, working on a wide range of investigations into environmental effects procedures, tourism and the environment, historic and cultural heritage management, erosion control forestry, and pest management. In Paul was seconded to the Department of Conservation where he worked with the team preparing the New Zealand Biodiversity Strategy. His particular expertise is in sustainable land management, conservation planning, preparation of Assessments of Environmental Effects and pest management.

other recent staff appointments:

WHANGAREI:
Liz Jolly, planner

AUCKLAND:
Karen Birch, graphic artist
Christine Bouw, landscape architect
Peter Kensington, landscape architect
Richard Tyler, CAD operator/landscape architect

TAURANGA:
Annabel Riley, landscape architect

WELLINGTON:
Andrew King, CAD operator/landscape architect

CHRISTCHURCH:
Diana Robertson, ecologist
Carey Edwards, planner

★ awards

Congratulations to ***Sarah Dawson*** [Christchurch office] and ***Ewen Henderson*** [Auckland office], on their recent New Zealand Planning Institute Distinguished Service Awards.

satellite offices

Boffa Miskell have opened two satellite offices, one in Whangarei [June 1998], and the other in Tauranga [September 1999]. Rachel de Lambert has shifted from Auckland to manage the Tauranga office, while the Whangarei office is managed by Max Dunn. Both offices offer full planning, design and ecology services, and can also call on the Auckland office when additional expertise is required.

In Cambodia, Boffa Miskell has assisted in a New Zealand government-funded aid project to manage the forests within the Angkor World Heritage Site.

Angkor Wat, Cambodia

▼ Angkor Wat is the largest and arguably most spectacular Angkorian monument.

The stone temples (dating from the Khmer glory days of the eighth to twelfth centuries) and surrounding tropical rainforests were declared a World Heritage park in

The joint venture study carried out by Boffa Miskell and Fraser Thomas, focused on the recent rapid depletion of the park's forests and the impacts of increased visitor numbers to the area. Ecological issues and the socio-economic situation of the local people living within and adjacent to the park were considered equally in the study.

The project was funded by the New Zealand Government through the New Zealand Overseas Development Assistance Programme (NZODA). The study, completed in December reported on options for heritage protection and enhancement, and on management of visitor activities and impacts, as well as the development of broad-scale and local landscape management objectives, policies, actions and indicative development proposals.

Integral to these was consideration of the social and economic pressures to log the forest. The report also covered issues of forest protection, rehabilitation, re-planting and sustainable community forestry. Integral to these considerations were community, social and economic issues.

The study, which has been enthusiastically received by the Cambodian Government and the International Committee for the Protection and Preservation of Angkor, is now waiting for donor funding. Potential funders are the Asia Development Bank and/or foreign government aid agencies.

Boffa Miskell, in association with Fraser Thomas, has recently been engaged by a private client to look at tourism and recreational opportunities in association with the development of one of Cambodia's national parks.

PROJECT TEAM: FRANK BOFFA, RACHEL DE LAMBERT

▲ Following the decline of the Angkorian civilisation, forest trees encroached on some of the monument sites.

Boffa Miskell offices and addresses:

WHANGAREI:
112 Bank Street, PO Box 250, WHANGAREI
PH: 09-438 2533
FAX: 09-438 2535
EMAIL: bmwhangarei@xtra.co.nz

AUCKLAND:
6th Floor, Bank Direct Building
13-15 College Hill, Ponsonby
PO Box 91 250, AUCKLAND
PH: 09-358 2526
FAX: 09-377 9468
EMAIL: johng@boffamiskell.co.nz

TAURANGA:
Ground Floor, 141 Cameron Road
PO Box 13 373, TAURANGA
PH: 07-571 5511
FAX: 07-571 3333
EMAIL: racheld.boffamiskell@xtra.co.nz

WELLINGTON:
3rd Floor, Capiche Building, 111 Dixon Street
PO Box 11 442, WELLINGTON
PH: 04-385 9315
FAX: 04-384 3089
EMAIL: boydene@boffamiskell.co.nz

CHRISTCHURCH:
7th Floor, Cardinal House
Cnr Gloucester Street and Oxford Terrace
PO Box 110, CHRISTCHURCH
PH: 03-366 8891
FAX: 03-365 7539
EMAIL: sarahd@boffamiskell.co.nz

QUEENSTOWN:
2nd Floor, Bradley's Building
Cnr Cow Lane and Beach Street
QUEENSTOWN
PH: 03-442 7597
FAX: 03-442 6599
EMAIL: boffaq@xtra.co.nz