



Firms tackle losses and emerge as winners

# Waste gets the flick

**P**ROPORTION, light and shade may well be the essence of good building design but responsibility for the environment should be uppermost in the conscience of every architect.

So say two Perth men who were lauded for their architectural designs this month in the WA Energy Efficiency Awards, organised by the Office of Energy and presented by Energy Minister Colin Barnett.

Garry Baverstock and Michael Ipkendanz represent the new breed who can successfully combine aesthetics with technicalities such as passive solar design and cooling requirements. A strong social conscience comes through in their work too.

For Ipkendanz, the word consultation is not taken lightly.

When he was commissioned as project architect for the Purnululu Aboriginal Corporation in the Kimberley, he lived in their remote community for a month to ascertain their needs.

Since 1988 Ipkendanz has spent a lot of time at Frog Hollow, an out-camp near Turkey Creek, learning the traditional ways of the people.

He has become a major force in providing the physical infrastructure for the community which is spread through the Kimberley in Halls Creek, Kununurra and smaller communities centred on Warmun and Frog Hollow.

"One thing I learnt about Aboriginal people is that every case is different," he said. "You can't just design one house for a community and expect that to work for people in an entirely different one."

His houses include a family core building where cooking and living take place. Clustered around that building are separate sleeping areas.



Garry Baverstock at the Zoo project — a high-tech building with a low-tech appearance.

The Purnululu School, which won the Educational and Community Based Programs award and houses 35 students, was designed while sitting around the campfire with teachers, students and parents in the Wurreranginy Community at Frog Hollow.

It was built by the families of the students using predominantly steel and plywood, at the cost of an average European-style suburban house. Solar energy is used and water supply and waste disposal are maintained by the community.

One of the spin-offs, Ipkendanz says, is the interactive learning process between community, students and staff — a positive role model of an energy system not directly dependent on fossil fuels.

The timber and iron building,

with veranda, is ventilated using vertical slats and operable awning shutters.

Ipkendanz had designed buildings for an earlier camp 70km east of this community in 1988 but was amazed at the lack of consultation generally undertaken with Aboriginal communities.

As well as placing a high priority on the physical construction — the temperatures range from 5-50C — Ipkendanz needed to take into account the cultural requirements of the community.

"We decided that one of the ways to get the community involved in the process was to get them to make cardboard models," he said.

"In the end what came from it was a totally flexible school building with one very large space

and smaller dedicated areas for office and wet activities."

Ipkendanz also had to consult elders who told him where no building was allowed and he had to consider the Aboriginal cultural trait of needing to see comings and goings at the camp.

But Ipkendanz is keen to point out that the building is only one facet of this special school.

"The teachers and the unique education process going on here make this school very special," he said. "A lot of architects seem to think the building solves the problem. The client is really the most important part."

Baverstock would agree. He has been designing passive solar buildings for 20 years and won the

commercial category of the Energy Efficiency Awards for the new administration buildings at the Perth Zoo.

But he said it was only in the past five years that energy efficiency had become as important as aesthetics in design.

"It's no longer considered to be the lunatic fringe element of the profession who concentrate on energy efficient designs," he said.

"In the old days energy was cheap and there was a higher emphasis on aesthetics. But there's nothing radical about orientating a house the right way and placing windows in the right position to take advantage of natural warmth in winter or making it easier to shade in summer.

"You don't have to be a greenie, it's just simple common sense."

He said all architects had a responsibility to their clients to ensure they were aware of such facets of design.

The Perth Zoo buildings illustrate his philosophy — "a high-tech building with a low-tech appearance".

His brief was to design administration buildings which required minimal running costs, in particular, energy — and he achieved that by reducing running costs by 70 per cent, compared with conventional buildings.

All the buildings face north, getting the benefit of the winter sun, and use natural light.

The air-conditioning runs on night ventilation and indirect evaporative cooling in the daylight.

Baverstock said the staff who worked in the buildings had commented that since they had been working there they had not experienced the colds and flu normally associated with traditional air-conditioning.

Gail Williams