

Exposing the rot beneath

BUILDING: John Scarry is airing the criticisms many of his peers have been afraid to

by **Simon Collins**

John Scarry is the kind of friend you might think twice about before inviting to a party. In his damning report on the "Third World" standards of our construction industry, he tells the story of attending a Barbecue at the home of a friend's parents.

The hosts proudly showed him the alterations they were having done downstairs. The ground had been excavated, and timber walls were already in place to create new basement rooms.

Scarry did not look around politely and (j)ompliment his hosts. Instead, he snooped around the basement and found three "major construction flaws":

- The builder had taken out some of the bolts holding the floor beams on to timber poles so that he could put Gib board around the poles, replacing the strong bolts with weaker nails.

- There was a 20cm gap in the outside wall between the new extension and a timber deck above it. "There was nothing to stop water pouring behind the top of the new exterior lining."

- None of the bracing elements downstairs had been nailed to the floor beams upstairs.

The house appears as one of the 26 buildings — most of them much bigger high-rise clocks — listed as evidence in Scarry's report on declining construction standards.

"He likes to drop in on building sites around Auckland and see if he can spot anything wrong," says Hugh McNaughton of the Auckland City Council's engineering company, City Design.

Scarry, aged 43, is a hands-on kind of engineer. He is scathing of his contemporaries, who have become directors of their firms and "seem to spend all their time on business administration".

"Many are heavily overworked, but not on anything productive or useful," he says in his report.

Scarry was an employee of Duffill Watts

>> Building in focus

Speakers at Ipenz conference, Hamilton, March 31

- > **Rob Steele**, chief executive, Standards NZ.

- > **Ian Bond**, civil engineer, co-author of Hunn Report.

- > **Prof Richard Fenwick**, ex-Auckland University.

- > **John Scarry**, structural engineer.

- » **Dr Jason La Masuher**, Canterbury University.

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- » **Barry Brown**, Chair, Building Industry Authority.

and King until 1998. But since then he has worked on contract for it and several other firms, putting him in a unique position to blow the whistle on an industry where most people with his experience cannot afford to upset the developers keeping their firms in business.

His report is scathing. It says:

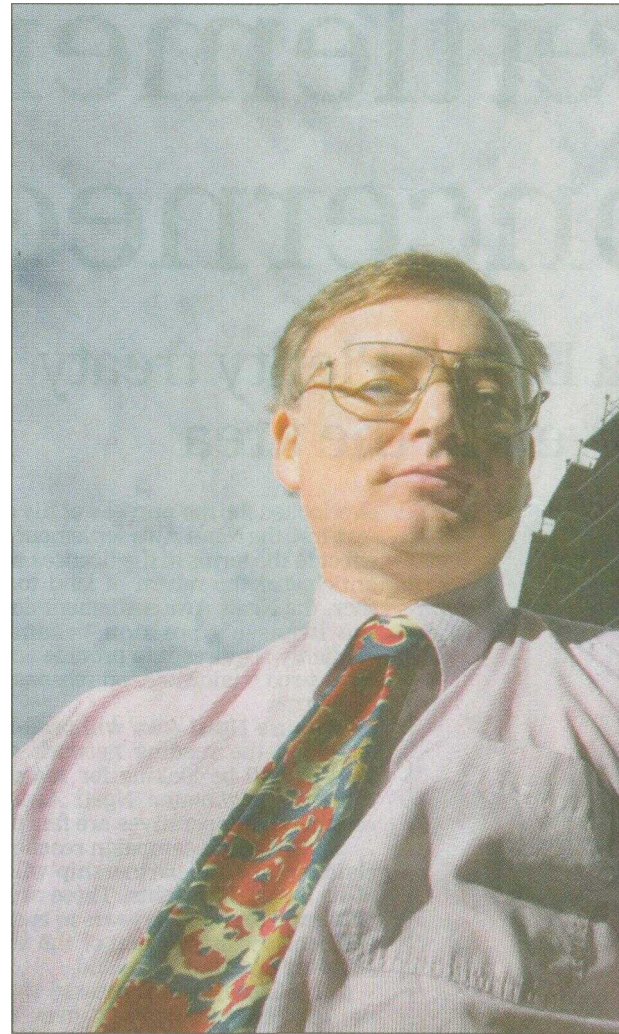
- Leaky buildings are "only the tip of an iceberg" of declining standards right across the building industry.

- The standards of commercial and domestic construction in Auckland are now "at a poor level consistent only with a Third World country".

- "Since 1994, billions of dollars worth of concrete construction, forming the bulk of the multi-storey commercial and multi-storey hotel and apartment stock in New Zealand, has been completed and must now be considered a severe seismic risk."

- "Skill levels are poor, particularly among the men actually doing the work, leadership and supervision are very poor, and there is a general couldn't-care-less attitude or worse."

- "The present generation of structural engineers and construction workers is less



skilled than the previous generation. This should be unheard of, and can only be described as decadence."

- "Marijuana/cannabis use on-site is widespread. It contributes to the couldn't-care-less attitude."

- Local body building inspectors "have in general abrogated their responsibilities".

Others are pointing out the same problems. The Hunn Report on leaky buildings last year found "a perception throughout the industry that skill levels on-site are declining".

This week's parliamentary committee report on leaky houses said: "There is currently a widespread perception that standards have fallen across the industry."

Richard Fenwick, a retired Auckland University structural engineering professor, says the decline dates back to former Finance Minister Roger Douglas's reforms of the 1980s, which privatised state enterprises.

"If you go back 20 years, we had a Ministry of Works and we had the Railways and they were very good at training the engineers after they graduated, in practical engineering," Fenwick says.

"To become a good structural engineer you need a couple of years of practical experience and during that time you need to be closely supervised and mentored."

In contrast, today's graduates go straight



OLD SCHOOL: John Scarry says 20 years ago there was a system whereby young engineers learned the practicalities of construction.

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into private firms that have to trim their costs to win contracts. Scarry cites cases of structural engineers charging 0.6 per cent of the value of a project, compared with the norm of 6 per cent before fees were deregulated in the late 1980s.

"Because drawings are poorly done, graduates cannot see what is wrong with their design and detailing. In many companies, the review of shop detail drawings is now very poor indeed, so the graduates do not get to learn from them either.

In 1991, a new Building Act replaced the previous multitude of local body building bylaws, fire regulations and other rules with a simplified system permitting the use of any materials and construction methods that met stated performance criteria.

Designers and builders were allowed to sign "producer statements" affirming that their designs and buildings complied.

The job of checking these statements was opened up to competition from private "building certifiers", who often offer to do the job more cheaply than council officials.

The former obligation to physically inspect buildings was replaced by a requirement to be "satisfied on reasonable grounds" that the building code was complied with. Competition has forced councils and private certifiers to abandon site checks.

"At the moment they are audited on how

long it took them to do the job rather than how well they did the job," says Dr Barry Davidson, president of the Structural Engineering Society.

Engineering fees are now so low that engineers only "very seldom now" supervise the actual construction.

"Some big companies almost have a policy of no supervision because they don't get paid to do it properly and they are scared of being held accountable if they just pop in to give a hand," Davidson says.

Developers are equally intent on evading accountability by devices such as creating a new company to build each new building, then liquidating it as soon as all the apartments in the block have been sold.

"If you own an apartment where it's leaking and it's starting to fall down, there is no one there [to sue]," he says.

Commerce Minister Lianne Dalziel, who is leading a review of the Building Act in the wake of the leaky homes crisis, says the 1991 law "went too far" with deregulation.

The Hunn Report advocated effective re-regulation to counter the "power imbalance" between developers and homebuyers.

A Government discussion paper issued on March 12 proposed:

- Testing and registering all builders, draughtspeople, project managers and building sub-trades, probably with a law that all domestic building work above a

value limit must be done by registered people.

- Requiring builders to buy performance bonds for all building contracts or contribute to an industry fund to compensate buyers if their buildings fail.

- Extending the disputes resolution service for leaky homes to cover other disputes.

The parliamentary committee that reported on Tuesday proposed going further by scrapping private building certifiers and requiring building elements to last 50 years, i

The committee proposed restoring actual inspections and specifying their nature.

Standard fees would be fixed to stop cost-cutting. "If more work is required of the inspectors, then it will clearly cost more," the committee said.

These proposals cover many of Scarry's own recommendations. He would go even further and wants a revamped Building Industry Authority to take over all building inspections and consents and publish the names of builders and designers who fail inspections.

He also advocates new criminal offences of "criminal building endangerment", such as repeatedly disregarding sound construction practices, and "criminal building fraud", such as building houses knowing that they have faults.