

THE OFFICIAL JOURNAL OF AIRAH

MAY 2018 · VOLUME 17.4

RRP \$14.95

PRINT POST APPROVAL  
NUMBER PP352532/00001

# Ecolibrium



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# IN GOOD NICK

Nick Adams, M.AIRAH, leads the mechanical services team at Arup's Melbourne office, and until this year was state president of AIRAH's Victoria division committee.

## When did you first decide you wanted to be an engineer, and how did you get to where you are today?

As a mechanical engineer, I didn't really get into engineering like most. Back in high school, a lot of the people who were into mechanical engineering were generally people who enjoyed cars. I wasn't really into that – I was just fascinated by how things worked. I was really into fixing mechanical things.

Mechanical engineering was the only stream offered at RMIT at the time, so that's what I went with. The course was great, but towards the end of my degree I became really interested in sustainability and renewable energy. I soon realised there wasn't much work around in terms of renewable energy.

However, one day I saw a poster at uni from Arup, which had the slogan, "Do you want to design green buildings?" It wasn't something I'd thought about much, but it sounded fascinating. So that's where I basically got started – 17 years on, I'm still here.

I started here doing building physics, energy assessments, and then moved into more traditional mechanical services design and project management – I loved that. I spent a few years working in the London office and now I'm back here.

## When did you notice the trend towards green building shifting?

In the building industry, I would say it's still not common. It's a small element of building design even at this stage. I feel the difficulty is finding an appropriate way to integrate renewables in a cost-effective manner.

There has been change over the past 15 years. In 2003 I worked on my first building-integrated photovoltaics project – this was cutting-edge stuff at the time, and hardly anyone had done anything like it. While it was amazing, it was also super-expensive and extremely difficult.

Things are a lot better nowadays following the introduction of Green Star, Australian Building Greenhouse Rating and NABERS.



Nick Adams, M.AIRAH

These have definitely led to a greater uptake of renewables in buildings in Australia.

## Are renewables a key part of your philosophy and process?

It's not renewables specifically – it's energy efficiency, which is one of the fundamental things we do. The first part of the process is assessing how much energy the building needs, and then we'll attempt to look for appropriate renewable technology towards the end of the design process.

## What are the favourite projects you've worked on and why?

I would have to say the K2 Sustainable Housing project, which I worked on about 10 years ago. It was a 100-unit social housing development in Windsor, and the goal was to make it as sustainable as possible. We actually wanted to make it a carbon-neutral project, but the budget didn't allow it at the time.

We got rid of all the air conditioning and implemented a range of features including natural ventilation, shading, a water recycling plant, and photovoltaic and solar hot water. It was really cutting-edge at the time and went a long way to shaping the way we look at designing sustainable buildings.

The fact that the people using the housing were generally people struggling financially

also made the project rewarding – not only was the building environmentally responsible, but it was also socially responsible. It was a really satisfying project and I got to work with a great team.

## Do you have a checklist you always follow at the start of a project?

There's no specific checklist, but for each project we're always looking at fundamentally what the occupants need – basically designing from the inside out. I don't go into projects with a preconceived notion of what the building should be like.

## Are you open to new ideas, or are the old ways the best ways?

It's both. There are plenty of examples of innovative buildings that have just gone wrong. It's disappointing, and doesn't do much to give innovation a good name. However, there are also plenty of examples of when innovation has worked extremely well. While I'm a fan of innovation, I'm also a fan of the basic core engineering principles of design. I like to hold both values at the same time.

## Why do you think some of these innovative projects "go wrong"?

Most of the time it comes down to complexity and overcomplicated designs. Another issue is the failure to consider who's going to take charge and maintain the project once it's done. There's also time constraints on projects, which are driven by market forces – sometimes not enough money is being put in to get the results needed.

## Outsourcing is a particularly hot topic in the industry at the moment. Does Arup do it?

We don't. We manage modelling resource within our office, or we share it within other Arup offices; there's always Arup people working on projects. I think it's horses for courses. Some companies obviously think they can make outsourcing work, but at Arup we're doing fine without it. I don't have any issues with outsourcing per se, but I do have an issue when outsourcing leads to a poor quality product.

## You were AIRAH's Victoria division president for two years, why do you think the Institute is so important to the building industry?

AIRAH is really important because it represents the needs of the industry at a high level – government level.

There are plenty of instances where AIRAH has worked to influence government policy and this needs to continue.

Providing training to its members and the HVAC&R industry has also been a fundamental aspect of AIRAH, whether that's technical training or career guidance. The resources that the Institute provides are specific to Australian conditions.

### With your tenure as president coming to an end, are you happy with what you've achieved?

When I started I wanted to organise events for members that were topical, relevant and useful. We've got a broad range of professional backgrounds when it comes to our members, so this was definitely a challenge. Many of the members also live rurally, so we wanted to make the events accessible for everyone. I wanted hands-on site visits as well as more learning-based presentations.

I'm quite happy with what I've managed to achieve. I have been on the committee for eight years, with two of those as president, and I've really enjoyed it the entire time. It's easy to fall into the trap of getting stuck in my own little consulting bubble and not engaging much outside of that, so being part of the committee has definitely helped me engage with people from other facets of the industry. I've really got a kick out of it.

### Do you have a mentor? Do you gain any satisfaction from mentoring others?

I've had a mentor who has helped me throughout my career. She's always been there to give me guidance and advice, particularly in the last year. I've also been a mentor to a few engineers at Arup, which has been interesting and challenging at the same time. It's really rewarding knowing you're helping someone in their career, but at the same time you also want them to seek answers themselves.



### What's the most important lesson you've learned working at Arup?

As an engineer it's easy to just get stuck in the number-crunching trap. However, what I've learnt at Arup is that a large part of the design process is interacting with your clients and team to achieve the best possible outcomes.

### What are your goals for the future?

I just want to keep producing great design and continue to work on great projects. Pretty simple really.

### What are your defining characteristics?

Positive, easy-going, and I like working with others.

### If I wasn't an engineer, I'd be a . . .

Probably an architect – shock, horror!

### Do you have hobbies?

I love the outdoors. Maybe if I wasn't an engineer or an architect, I'd be an outdoor education instructor.

### My most valued possession is . . .

My skis.

### Tell us something about yourself others might not know.

I don't have secrets. I'm not a secret ninja or anything like that! ■

