

Q&A Jessica Holz, M.AIRAH

Ecolibrium breaks bread with the former AIRAH Future Leader, a senior ESD and mechanical engineer with Aurecon in Brisbane.

Ecolibrium: When did you first decide you wanted to be a mechanical engineer, and how did you get to where you are today?

Jessica Holz: I did a general first year at university, and by the end of it I decided that mechanical engineering was the most broad, practical discipline that opened up the most career options. I did my undergraduate work experience in HVAC and green buildings, and since graduation have worked at a couple of design consultancies.

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I've also been involved with AIRAH and Women in Engineering Queensland, and completed a Master's degree and my Chartered status. I now work at Aurecon in both mechanical and ESD roles on projects, which is a great position to be in.

Eco: How would you characterise your approach to work? What are the fundamentals to your philosophy and process?

JH: I am pretty methodical and organised; I don't know how else it would be possible to work across multiple projects as a consultant. I try to break difficult problems down in to tasks and work my way through them.

I also try to make time for learning on projects and improving design outcomes. I am trying to get better at creatively exploring multiple design options early on and then deciding on the best approach.



Jessica Holtz, M.AIRAH, earns her Master's degree in Environmental Management.

Eco: Do you have a checklist you always follow at the start of a project or initiative?

JH: I write lists for every project and constantly update them across the life of the project. I also like to prioritise tasks and allocate time to each so that I quickly know if I am falling behind – although sometimes this is easier said than done!

Eco: Are you open to new ideas, or are the old ways the best ways? Do you like to collaborate?

JH: I am absolutely open to new ideas, innovation and continual improvement on the old ways of doing things. The challenge of our time is to reduce the negative environmental impacts of development, and we will never achieve this if we are too conservative and closed to new ideas.

“ The first few years after graduation are tough, but you will enjoy the job more and more as you get better at it ”

I really enjoy collaborating. I am very lucky to work for Aurecon, where creative thinking and collaboration across the whole company is encouraged. I have spoken to some inspirational engineers since I started working here, who have challenged some of my old ideas and made me aspire to be more creative in design.



The Gold Coast Airport expansion remains one of Jessica's favourite projects.

Eco: What are your favourite projects you've worked on and why? What are your favourite parts of your job?

JH: I am enjoying working on two particular projects at the moment: the expansion of Gold Coast Airport and the

independent commissioning agent role at Mater Private Hospital in Springfield. Both of these projects are challenging, serve as important facilities for the community, and have great project teams.

My favourite parts of my job would be the problem solving – particularly the part

where the problem is solved – learning new things, and the people I meet and work with.

Eco: Whom do you admire and why? Do you have a mentor? Do you gain any satisfaction from mentoring others?

JH: I don't have a mentor as such but I do have some friends and family who I admire, usually because they are hilarious or intelligent. I love to be helpful, and so am always happy to mentor others, share my experiences and offer whatever reflections or ideas that I can.

Eco: Are there interesting, funny or quirky facts you could share with us about your work and what you do?

JH: I keep suggesting space be reserved for wildlife, and that native Australian beehives be installed on every project – even when I am just working on HVAC, so it's a little out of scope.



Have you considered installing a beehive on your project?

Eco: What advice do you have for emerging engineers who wish to follow in your path?

JH: Work hard and be flexible in your work methods and thinking. The first few

years after graduation are tough, but you will enjoy the job more and more as you get better at it. Learn as much as possible from other people and use this to fine-tune and develop your own ideas.



Jessica's sponsored Kenyan elephant, Kauro. Image: Colin Davis.

Eco: What's the most important lesson you've learned throughout your working life?

JH: Take the time to think things through even when under pressure. Do your calcs, draw your sketches and then when you have solved the problem or if you have a great idea, back yourself. If you don't have confidence in your abilities, nobody else will.

Eco: What's next for you, and what are your goals for the future?

JH: My main goal is to incorporate more environmental and sustainability initiatives into future projects, especially now that I have completed my Master of Environmental Management. Mechanical and ESD professionals are leading the community in improving the sustainability of the built environment, which is a really interesting and an exciting movement to be a part of.

I would like to see sustainability considered more broadly on building

projects, not just in terms of operational energy efficiency but in terms of life-cycle and ecological impacts, and finding ways to enhance biodiversity in and around buildings. To achieve this we will need to work with a wider range of urban design professionals and be involved earlier in projects. I would also like to play a role in educating the industry and community about these issues.

Eco: Describe yourself. What are your defining characteristics?

JH: Always a tough question. I like to think that I am – and aspire to be – kind, fun and clever.

Eco: If I wasn't a mechanical engineer, I'd be a . . .

JH: Vet. I am an animal lover.

Eco: Do you have hobbies or diversions?

JH: I play guitar and enjoy sport and getting outdoors.

Eco: My most valued possession is . . .

JH: I have two: my Maton guitar and engagement ring.

Eco: Tell us something about yourself others might not know.

JH: I sponsor a baby elephant in Kenya.

Eco: In five years I'd like to be . . .

JH: Having a great time. ■



A valued possession.