

Who governs inside comfort conditions?

Why are we (world population) wasting money and precious natural resources on over cooling (office) buildings in hot places and over-heating (office) buildings in cold places???

A review by Joanna Rees, attendee of the '10th Windsor Conference' 12th – 15th April 2018, "Rethinking Thermal Comfort"



This group of people above came from all over the world to talk about thermal comfort conditions inside buildings. They are mostly academics, from many disciplines including architecture, mechanical engineering, psychology, health, anthropology and geography. I went along to get an updated nerdy fix on a research topic I worked on many years ago together, with my mentor and friend Prof Terry Williamson from the University of Adelaide, a veteran who has been pursuing this architectural research topic for at least 45 years. Accompanying us was also Dr Lyrian Daniel, who has recently finished her PhD, that in part, looked at thermal comfort in naturally ventilated houses in Darwin, my only other smiling familiar face (at the beginning).

Below is the description of what and why the conference is held every two years and sustains the passionate interest of thousands of people, in every place and climate imaginable.

"After more than a hundred years of research into thermal comfort our ability to predict the conditions that ensure it remains imprecise. At the same time the need to understand our thermal interaction with the world becomes more urgent as global temperatures rise, populations grow and energy prices soar. The tenth Windsor Conference provided an opportunity to rethink how we approach the idea of providing comfort in the changing world of the 21st Century. To understand the outcomes of our deliberations – look at the conference programme and then at the Proceedings that are structured in the same way. For a more in-depth overview look at the Workshop Review that also charts some of the discussions and thinking on key topics." www.windsorconference.com

I found it to be engaging and much more interesting than a regular architecture conference. Papers were delivered in 10 or 5 minutes slots with 10 minute presentations having 5 minutes discussion

time immediately after, with at length discussions taking place during lunch, dinner, after, before, with coffee, in the garden. Each tiny time slot gave a window into years of rigorous intellectual pursuit, to change the world and make it a better place. The methods varied of course but largely included collecting information by painstakingly collecting data repeatedly, analysing it, analysing statistics, talking to people, lots of people one by one, reading, writing, rewriting, making gadgets to measure climatic data and even making chairs that could heat or cool you.

Talks I enjoyed the most were by: the Brazilians and Spanish who have similar climatic conditions to Australia, the Arabic people because they endure 50 degree C temperatures outside in the shade and have ridiculously over chilled office spaces, much like we have in many large buildings in the NT, and those (mostly women) were outraged at the crazy cost and waste of depleting resources.

Three and a half days sped past with the formal proceedings held at a cracking pace, in an amazing landscape of the Windsor Great Park and a 400-year-old castle/ house called Cumberland Lodge. I felt privileged to be among excellent company of all ages, enjoying excellent food and lodgings.



Terry Williamson, giving a paper / our quiz team

ASHRAE Standards are a devil of a thing I am now intrigued to investigate: Who governs it, who feeds into it, who uses it, who chose 18 degrees Celsius as the best office temperature in the tropics or summer desert. I am of the new understanding that mechanical engineering guidelines for heating ventilation and cooling air across the world are “set” by a group of (possibly slightly fascist) mechanical engineers who have funding from fossil fuel suppliers. But then I am given over to conspiracy theories.

Terry and Lyrian presented a paper in the opening session entitled “Changing Thermal Comfort Expectations: Studies in Darwin, Australia” that compared the results of two studies looking at the thermal expectations of occupants in naturally ventilated dwellings conducted some 25 years apart (1988/89 and 2013/14). The research revealed that the 2013-4 group was slightly better adapted to the indoor temperature while being more sensitive (or less tolerant) to indoor temperature changes. They suggest that one possibility for this finding was a greater exposure to air-conditioning outside the house. Interestingly they also found that the conditions people find acceptable bares no relation to the ASHRAE Standards.

I'll rate the experience as a 5/5. Quality and content. Lots of passionate women & interesting folks.



Thanks Terry and Lyrian.

