A Tribute to John Mumme's Contribution to ACW and the Built Environment

- John Mumme was a key contributor to the ACW project for many years
- Before that he was also involved with Work and a Warming World and with the two previous SSHRC grants as well
- His contribution was partly through his written work but equally important through his informed discussions with those of us who have been part of this grant over the years
- Today I plan to provide an overview and summary of John's paper in which he looked at the extent to which architectural schools in Canada were including climate change in their curriculum
- It is a unique study because no one else has done something similar in Canada to date and thus it fills a major gap in the climate literature.

THE TRAINING OF CANADIAN ARCHITECTS FOR THE CHALLENGES OF CLIMATE CHANGE

ACW | Adapting Canadian Work and Workplaces to Respond to Climate Change

www.adaptingcanadianwork.ca

What are Canada’s 11 Architectural Schools Doing to Promote Climate Change?

- The study involved reviewing the academic literature, analysing university curricula documents and interviewing key faculty, students ad administrators in the major Canadian architectural schools
- The study also looked internationally, to provide a way of comparing how the Canadian school programs were performing with schools in other countries
- It looked at both new construction and on refurbishing existing buildings, the latter being a key issue due to their longevity
- It also located the research in the context of Canada’s GHG emission reduction commitments as stated in the Pan-Canadian framework on Clean Growth and Climate Change and related Commitments by the Canadian government

Analysing How Architects Framed the Discourse

- The language used to discuss climate change is an indicator of how urgent the issue is in the minds of those dealing with it
- John wanted to see what terminology was prevalent to get a sense of how serious the commitment was to addressing climate issues
- He also wanted to assess the extent to which urgency was actually reflected in the curriculum documents themselves
- And he was concerned about how architects viewed their role and potential contribution in this process
- The use of ‘sustainability’ and ‘environment’ do not have the same meaning as climate change so the fact that these terms were in the documents did not necessarily reflect concerns about the climate

Canada’s Schools of Architecture

- There are 11 Schools in Canada
- There are varying requirements for getting the degree
- Some schools are requiring 3 years after a 4 year honours degree
- Others take up to 6 years after a professional degree
- The variation would suggest that those with a longer time period to complete would have more opportunity to incorporate climate change into the curricula
- But regardless there appeared to be no difference in the extent to which climate change was incorporated into their curricula

Course Requirements

- Only the University of Calgary has a requirement that all students take a course in sustainability and built environment
- Five others require, as a condition of admittance that a student have taken a course in sustainability in their pre-reqs
- At the other 5 schools, students can take courses that are optional
- Some of their other courses on buildings may include climate issues
- **So they can graduate without any course on climate change**

Focus of the Courses: Environment, Ecology or Climate Change

- Climate change was not a focus in any of the course descriptions – to the extent it was covered it was in the context of sustainability
- Explicit reference to climate change was absent in all the courses except that offered by Laurentian University
- Ditto for greenhouse gas emissions
- So there is a real gap in what the universities offer

How Architects are Certified

- First step is to get a university Master’s of Architecture degree
- Second is to acquire experience through an internship
- Third by passing an exam after the internship
- There are several regulatory bodies that deal with different aspects of training and certification
- Canadian Architectural Certification Board
- Canadian Council of University Schools of Architecture
- All have a role in determining what architects must learn

How is it that Climate Issues are Not on the Curriculum of Canadian Schools?

"How does this situation arise? In part, of course, it arises from choices made by the schools themselves. The schools are free to set their own curricula, and none of them have found it sufficiently important to require their students to take a course devoted to climate change in either their M. Arch program or in the pre-professional undergraduate programs most of them offer. Nor, indeed, in the case of half of the schools, do they offer a course devoted to the environment, ecology, or sustainability. However, the situation does not only reflect the choices made by the schools. In part the situation can be explained by the fact that the regulator does not require them to do so. "

Canadian Architectural Certification Board (CACB)

- Administers the accreditation process for schools of architecture
- Schools must meet established professional qualifications and standards
- It also certifies individual architects giving them the right to practice the profession
- It certifies foreign architects to practice in Canada
- University schools of Architecture must ensure that their programs fit within the standards set by the CACB

Accreditation Requirements for Architectural School Programs in Canada

- CCAB establishes 31 Student Performance Criteria that schools must meet in their programs
- But only one of these addresses anything associated with climate change and it does not do this directly.
- **“B4. Sustainable Design**
- **“Ability to apply the principles of sustainable design to produce projects that conserve natural and built resources, provide healthy environments for occupants/users, and reduce the impacts of building construction and operations on future generations”.**

John’s Conclusion

We see nowhere any mention of climate change, no recognition of the overwhelming consensus among climate scientists that global warming is a crucial challenge for humanity, and no mention of the crucial role that architects are in a position to play in the critically important task of reducing greenhouse gases.

International Comparisons

- The US National Architectural Accrediting Board (NAAB) accredits architectural schools
- Its requirements are stronger than those in Canada but are not explicitly requiring students to acquire knowledge about climate change
- The UK Architects regulation Board (ARB) establishes the professions qualification standards
- Like the US it has requirements associated with sustainability and the environment but does not explicitly reference climate change
- However both US and UK schools of architecture have requirements that are consistent with climate change (Harvard, MIT, Cambridge)

John’s Conclusions

- **It is most unfortunate that there is no mention of climate change in any of the CACB criteria. Only a single criterion refers to an associated issue, that of sustainable design, but there is nothing specific at all to refer to the issue of climate change. it is entirely possible for architecture students to go through the education phase of their training without ever actually taking a course devoted specifically to the environment, let alone to climate change.**