ACADIA@25

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In labs and classrooms not far from mine, many USC professors and students are exploring the frontiers of digital media technology in the built environment. Just a few years ago, I was among a very small group of computer-savvy, media-literate faculty members. Now it seems like everyone is savvy and it is getting harder to avoid becoming a dinosaur.

Not far from my office, Prof. Tom Holman is continuing his research on the applications of digital enhancements to acoustical environments. His earlier work led to the acoustical protocols of the Tomlinson Holman eXperiment, which we are accustomed to seeing (and hearing) as the "THX" part of Dolby THX when we go to the movies. His astonishing new prototype system allows him to make sound sources appear to be coming from anywhere in the room. I don't understand how it works.

We are the dinosaurs, marching, marching.*

In the Graduate Building Science Lab, architecture Professor Mark Schiler is adapting software to study daylight and glare. He gained some fame recently for his glare analysis of the Los Angeles Disney Concert Hall designed by Frank Gehry. The complex curvilinear metal skin of the building was concentrating and reflecting uncomfortable glare into neighboring condominiums and blinding drivers on the adjacent streets. (People poked fun at the Disney glare problem until Schiler observed that there are other reflective glass buildings downtown that are just as bad or even worse. The Disney glare problem has now been mitigated).

We are the dinosaurs, marching, marching.
We are the dinosaurs, what do you think
of that?

In my early years with ACADIA, simply making a three-dimensional computer model of a building was considered "cutting edge" and any use of the model beyond visualization was described as "bleeding edge." In the two projects described above, the three-dimensional computer model was a necessary component but no longer the primary

focus. Even when the architectural geometry is as complex as the Disney Hall, the interesting work now is in the intricate and difficult-to-predict interactions of the model in shaping light and sound.

We are the dinosaurs, marching, marching.

Being close to the cutting edge is part of what makes a university career enjoyable. I take pride and pleasure in encouraging my graduate students to seek what I call "shaving cream" thesis projects (projects that are far enough out there that they 'pave the way for the cutting edge' to follow). But now the frontiers of architectural computing have moved far enough out that they can be hard to find. One trend we are seeing is research projects exploring how two or more frontiers can interact. This fall semester, two architects from the Morphosis architecture firm will teach a class at USC covering CAD/CAM rapid prototyping techniques in generative design. Another trend is exploring curricular uses of popular electronic media devices. Prof. Karen Kensek is exploring possible teaching and learning methods with iPods. I have recently been to nearby campus offices to see advances in lenticular screens for laptops (for improved 3D displays), haptic interface devices, and to talk with Prof. Khoshnevis about his "Contour Crafting" technology that he will use to literally "print" full-sized buildings. It does not seem so long ago when explaining "X-Refs" was the challenge.

We are the dinosaurs, marching, marching
We are the dinosaurs, We make the earth flat.

I do not lament this progress. I revel in it. I am just not as confident of my own abilities as I used to be. To regain some of my confidence, I hope that ACADIAns can help me in the coming years by:

seeking ways to reduce the cognitive burden of just treading water (learning new software, finding the best hardware, printing, file management, backups, etc).

building on each others' work (Are your students making prototype tools? - Can we share?)

communicating with and beyond our core constituency (I miss the old ACADIA Newsletter).

finding an appropriate and healthy distance between education and practice (The mission of schools of architecture is not simply to prepare students to enter the profession).

encouraging funded and published research (Architecture continues to suffer from severely limited research support).

I look forward to seeing everyone at the ACADIA Conference this year. We have a lot to talk about.

* from the song "We are the Dinosaurs" by Laurie Berkner. If you have not heard this song yet, please try to avoid it. Once you hear it, you cannot get it out of your head.