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Look closely, watch what happens: visual modelling and constructionism

The core activity of my version of visual modelling is to encourage individual computational exploration of shape, placement, color and texture themes witnessed by students looking closely at physical objects. In this paper, I will describe my history of designing and teaching courses around this central notion and how such work encourages students to integrate a wide range of technical and non-technical skills into their work. I'll talk about why I think this activity is important for students of all disciplines. I'll also talk specifically about the effects visual modeling activities have had on students and I will also describe, with perhaps far more confidence, how the teaching of visual modeling has affected me over the past 40 years. I'll illustrate my comments with visual tasks done by students and me.

I'll finish by referencing recent work gathering intellectual narratives via face to face interviews with colleagues who label themselves constructionist. I have been surprised during these conversations to hear widely different personal definitions of "constructionism". I'll offer my own take on constructionism and how I see visual modeling as a key constructionist activity.

About speaker

James Edward Clayson is Professor Emeritus at the American University of Paris (AUP) where he taught operations research, statistics and visual modelling for thirty years. He specializes in constructing educational environments where liberal arts undergraduates can explore the power of building personal models that link the visual, verbal and the quantitative. A key element for doing so is through student journaling. Jim Clayson won AUP's outstanding teacher award three times. His early book, Visual Modeling with Logo: a structured approach to seeing (1988) was published by MIT Press in its series of constructionist explorations using Logo. His latest book, A Computational Eye (in process), using his own extension to Python, was tested on students at Deep Springs College (California) where he was a visiting professor in 2015. Before entering academia, he was director of operations research at Carnation Company (now Nestlé) in Los Angeles. After moving to France in the early 1970s he managed a Provence-based art school where he extended his interest in drawing and design. He has travelled and consulted widely and spent several years in Kenya researching the informal sector. Jim studied at MIT, the University of Chicago and the School of Oriental and African Studies (University of London).