3 James and Common Sense

Basically James' account of common sense claims that the categories of common sense thinking are historically contingent, certain categories emerge because employing them in that context at that time increase survivability and success, however defined (James 1907; 1981). What may be an example of something or other in one context may not be in another.

Consider the following story, a real life example. I had asked some friends from the university if they wanted to help my wife and I load hay bales that were out in the field onto a truck and then unload them into our barn, they, all Ph.D.s, agreed and thought this would great fun. The hay field in question is on a hill and reasonably steep and visible from the road that winds down into the valley below. While we were near the top of the hill I saw the pick-up truck of an old framer who lived down the valley stop and turn around and make its torturous way up the mountainside to where we were. My wife was driving the hay bale truck, she grew up on a farm but it was in the flatlands. I was up on the truck stacking the bales as they were tossed up onto the truck bed. The old farmer, Dan, got out of his pickup and stared at us and just shook his head. "How many Ph.D.s involved in this operation?" He asked. I replied there were six of us. He snorted and then he asked "Any of you ever heard of gravity?" and then he laughed and laughed, got in his truck and started back home continuing to shake his head. It seems we had the truck pointed uphill – and the guys tossing bales had to throw them uphill against the pull of gravity. It was much easier to throw them downhill onto the truck bed, getting an assist from gravity. He knew that instinctively, well, he grew up riding along side his daddy from the time he could walk, absorbing so much of the common sense knowledge of how to get things done on a farm that it seemed like instinct.

This is the sort of thing that James means by common sense. Through a variety of means, some ways of doing things in a certain place for a certain purpose come to be common sense as they share acceptance in the community that does not require justification, they have been *vindicated over time*. Yet, the old French saying, *Plus le change, plus le meme chose*, is false. Consider the same scene twenty years later. The hay field has been sold and the new owner no long makes the small "square bails" of hay, but he still makes hay. However, now he makes hay in huge round bails. In order to get them down off the hillside he has to transport them one at a time on a spike on the back of his tractor, and to load one of the round bails on a spike on a hill you have back the tractor uphill, spike end pointing up so you can impale the bail and then move down the hill without it falling off. The use of gravity has changed. Now hold that thought while I move to canonical standards for architecture design.

4 Architectural Design Criteria

When it comes to design, there is a canon in architecture, at least there was.

The architectural canonical criteria come to us from the Roman architect, Vitruvius. The three criteria he laid down were, *Utilitas, Firmitas*, and *Venustas*.

These have been translated to mean "Commodity, Firmness, and Delight" – Robert Bruegmann considers the exposition of these concepts by Geoffrey Scott in his 1914 *The Architecture of Humanism* to be the best. According to Scott, the first criterion is commodity.

> Buildings maybe judged by the success with which they supply practical ends they are designed to meet. Or, by a natural extension, we may judge them by the value of these ends themselves; that is to say, by the external purposes that they reflect. These, indeed, are two different questions. The last makes a moral reference, which the first avoids, but both spring, and spring inevitably, from the link which architecture has with life. (Bruegmann, 1985, 3–4)

On this account Commodity, or perhaps a more faithful translation is Utility, requires that the design of a building both be suited to the function it is supposed to perform and exhibit that function. The first seems reasonable enough, the second is a bit less obvious. Taken to extremes we might require that a Post Office look like a giant envelope and surely that is not what is entailed here. But it is not uncommon to expect, for example, governmental buildings to be larger than life, exhibiting the transcendent function of government over the interests of a single individual.

The second criterion is *Firmness*.

> On every hand the study of architecture encounters physics, statics, and dynamics, suggesting, controlling, justifying its design. It is open to expression of material properties and material laws. Without these, architecture is impossible, its history unintelligible. And if, finding these everywhere paramount, we seek, in terms of material properties and material laws, not merely to account for the history of architecture but to assess its value, the architecture will be judged by the exactness and sincerity with which it expresses constructive facts and conforms to constructive laws. (Bruegmann, 1985, 2)

Bruegmann interprets this to mean that "Firmness … is about structure and composition. A building should not only be sound and logical in is construction, but it should appear this way as well." (1985, 18) It is not clear what it means for a building to be logical. Further, with the advent of newer construction materials and techniques, the appearance of the soundness of the construction has lost some of its force. Consider large enclosed sports stadiums. The supporting structure of the domes is often not clear and obvious. It is also not at all obvious that allowing the building visually to expose the source of its soundness necessarily is a good idea. This example is not completely on point, but it should highlight the issue. Corning Industries is a large U.S. firm specializing in products made from ceramics and glass. When the Corning Plant in Christiansburg, Virginia, was built in the 1960s there was an expressed desire by management to use as many Corning materials in its construction as possible. So, some wise designer decided to use glass tubing for the plumbing and to have the tubes exposed overhead. When the plant was opened and tours were being given, the obvious mistake was noted and the tubes were quickly wrapped in duct tape.

The third criterion handed down to us by Vitruvius was *Venustas* or Beauty or sometimes conceived as Delight.

> We may trace in architecture a third and different factor – the disinterested desire for beauty. This desire does not, it is true, culminate here in a purely aesthetic result, for it has