

I have always considered myself a material-based artist whose roots are firmly planted in craft, and my material is glass.

Having said that, the current concern with 'materiality' has struck me as somehow off-the-mark and unhelpful when it comes to this enigmatic substance, glass. It occurred to me years ago when I began casting glass that it was the *immateriality* of glass that made it so special, that and its curious relationship to light. I began to realize I was dealing with the co-dependent 'immateriality' of glass and the 'immateriality' of light, the logical implication being that I am a sculptor of light as much as a sculptor of glass.

Is it possible to regard this relationship as a third material, as a unity - light/glass?

My first experiment with the idea of incorporating a light source within a glass sculpture occurred in 2004 with 'Arboreal fragments', an assemblage of cast glass, log fragments and embedded quartz halogen lamps. This work was part of the larger show, 'Fragments and 2 partial reconstructions: everything we know about the Tropicene' in which all the individual pieces were framed in the context of a pseudo-archeological exhibit representing a collection of artifacts from an imaginary geological epoch called the Tropicene.

After the success of this rudimentary use of embedded light, the whole notion of combined light-and-glass sculpture was set aside until 2010 when I began the fairly systematic investigation of recent developments in lighting and microelectronic technology, which resulted, five years later, in 'Synthia's Closet', the theme of which concerned the ethical ambiguities accruing from human interventions in the 'natural' world - specifically bioengineering. This large installed environment consisted of a mass of free-standing glass forms, each enclosing its own micro-environment, and each incorporating its own light source. Most gratifyingly, all my previous experience with glass (every technique I had learned or developed: blowing, kiln casting, combining blown and cast glass in the kiln, adding light to finished work) fed into the making of 'Synthia's Closet' and this sculptural use of light.

By 2017, with the first version of 'Apparatus for the invention of light', the electrical paraphernalia had become a visible and essential element of the work. This sculpture consisted of seventeen cast and carved spheres, five cast glass rods, a large perforated glass 'bowl' (all assembled in the kiln), and a cast urethane resin electric module. All electrical components were visible and considered essential to the piece.

However, 'Apparatus for the invention of light', while being a free-standing internally lit sculpture, still depended occasionally on being charged from an external source, and it then occurred to me that solar energy would be a logical way to break free from the electrical grid and make the work truly autonomous. At that point, in addition to my study the refraction of light in glass, I began testing the microcircuitry of solar garden lights, studying available batteries (colour, size and shape, as well as voltage and amperage), and searching for small solar panels.

While conducting these investigations I began to think of each object as a 'handful of light' that behaved like a 'light sponge' that could be held and manipulated in the hand.

All of which leads me back to the question stated at the outset: is it possible to regard this relationship between light and glass as a third material, as a unity - light/glass? When the word 'autotroph' (an organism that can produce its own food using light, water, carbon dioxide, or other chemicals) came to my attention it seemed to describe pretty accurately the kind of object I was trying to make - an autonomous light/glass object.

The resulting object is truly autotrophic - capable of producing its own light independent of human intervention. It is, in effect, an autonomous handful of light - a 'living' object that spontaneously responds to changes in the surrounding ambient natural light. Over time, these objects become unexpectedly affecting - intimate objects best lived with and experienced privately as they make their subtle adjustments to the shifting natural light.