

# the project

## sized matter - perceptions of the extreme unseen

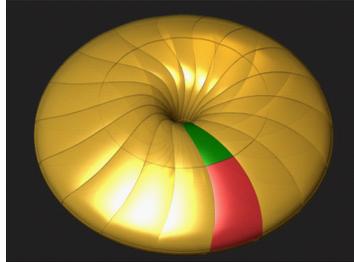
<http://www-personal.umich.edu/~janhande/sizedmatter/sizedmatter.htm>

fermilab art gallery - june 6th - august 26 - 2005

jan-henrik andersen

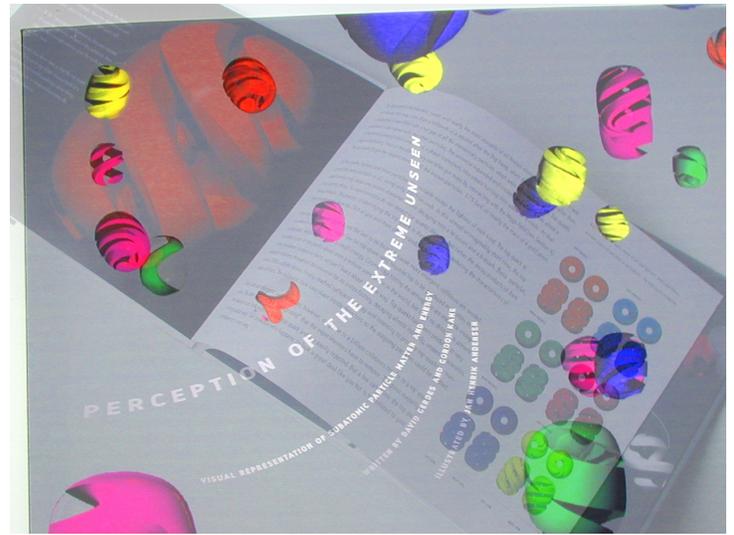
In 2000 my colleagues, Professor Sherri Smith at the School of Art&Design and Dr. Gordy Kane in the Physics Department at the University of Michigan in Ann Arbor, initiated discussions and collaborations between physicists and artists/designers. With the support of Dean Bryan Rogers several of these collaborations are still going, and with the financial support of Dean Rogers and the Office of the Vice President of Research at University of Michigan, I have been able to keep up the development over an extended period of time.

My first encounter in this field was done in collaboration with physicist Dr. Phil Bucksbaum, where I tried to break into the thought processes and concepts of subatomic physics by making a 3-dimensional interpretation of an electron. By using 3D software and rapid prototyping (stereolithography), then modular multiplication of resin sectorial parts in silicon molds, I created a sculptural piece called the Electron (*photos below*).



*The geometric and visual idea behind the Electron was to create a spatial form based on one continuous line in space; defining a field in space - extending from and contracting towards the center of the piece - a self-sustained, yet limited vortex of movement. Dia. approx. 30"*

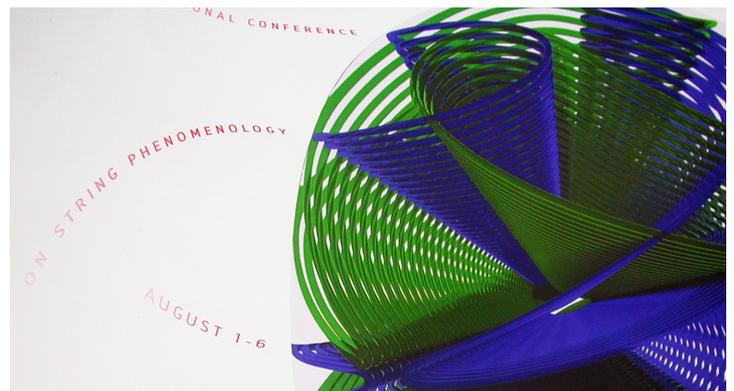
The Electron was shown at a group show at the Physics Department, which in turn led to discussion with Gordy and Dr. David Gerdes on developing a complete visual nomenclature of subatomic particles. Over a period of several years we discussed concepts and developed a mutual understanding of what we wanted to convey. In all honesty and with a deep respect for their work, I know David and Gordy to be very patient, as the abstractions of mathematics and theory was a far stretch for me to get a grip on. Through discussions of visual iterations we settled for what is partially presented at this event. The images in this exhibition represent a fraction, less than 1%, of all the images created - a long haul indeed. We've proceeded to work out a book proposal to reach for a wider audience. The book is planned with 17 chapters, of which we've presented the Top Quark Chapter as a prototype.



*(Composite facsimile of the book prototype).*

Throughout this whole period, Sherri Smith, and later our colleague Graphic Designer Dennis Miller joined the project and participated in the discussions. Dennis developed a typeface named Subatomic and the graphic design for the beautiful prototype of the first written and illustrated chapter on the Top Quark. We're still working the publishing world to make Gordy's and Davids text and the visual project available in a book.

The visual works was first shown in a small group show in December of 2002, and subsequently a more complete presentation with about 45 works at the Jean Paul Slusser Gallery in Ann Arbor in 2004. Seven works was acquired by the new Life Sciences Institute and the Art Museum Collection at the University of Michigan, and are now flanking the board room at the Institute. The particle graphics was also used as the logo and poster for the International Conference on String Phenomenology at University of Michigan in August 2004. Again, typography and graphic design by Dennis Miller. (*Partial facsimile below*). Dennis also designed the poster for the Slusser show in 2004.



The goal for the show is to nurture a future consensus on how to visually represent subatomic particle energy and matter. The importance of feedback from physicists and audiences at large on the exhibition can not be understated. Comments and critique on the project and works are welcomed to:

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