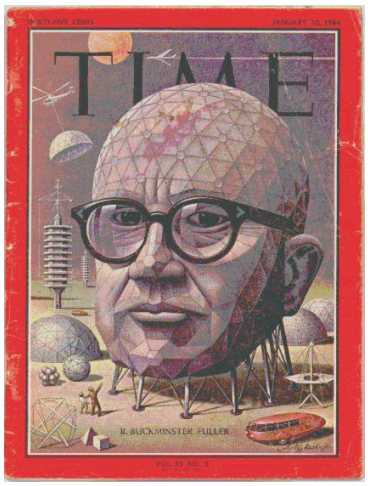
Everything is Design

I was in the third-year design class at SIU in 1964-5. We studied systems theory and cybernetics with Bill Perk, designed machines to lift and transport bricks in Davis Pratt's class, and learned graphic design from Harold Grosowsky and Herb Roan. The highlight of the year, though, was a two-week class taught by Buckminster Fuller.



Buckminster Fuller!

Bucky had been on the cover of Time Magazine the year before. Bucky was the reason I was in design at SIU. The SIU Press had just published two of his books, and a third had been published in London. I'd recently seen Bucky's Dymaxion house and oct-tet truss structure in a show at the Museum of Modern Art in New York City.

Bucky was going to teach our class starting in March.

Of course we had to get ready. This would be a very special class so we took

the first two months of the winter term to prepare for the great event. We wanted the perfect learning environment for our time with Bucky so we did a makeover on our old World War Two barracks classroom.

Designing the Environment

First, we build three new walls of Homasote. They were arranged to create a triangular room with the sides bowed out. Inside the triangular room we built a triangular conference table with an open center. Each side of the table accomodated 6 to 8 director chairs. Provisions were made for cameras to shoot through openings in the new walls and chalkboards, screens, and projectors were installed. We set up microphones and a tape recorder to capture every word. Once the construction was finished we painted the walls white and the special triagular table a bright gloss yellow.

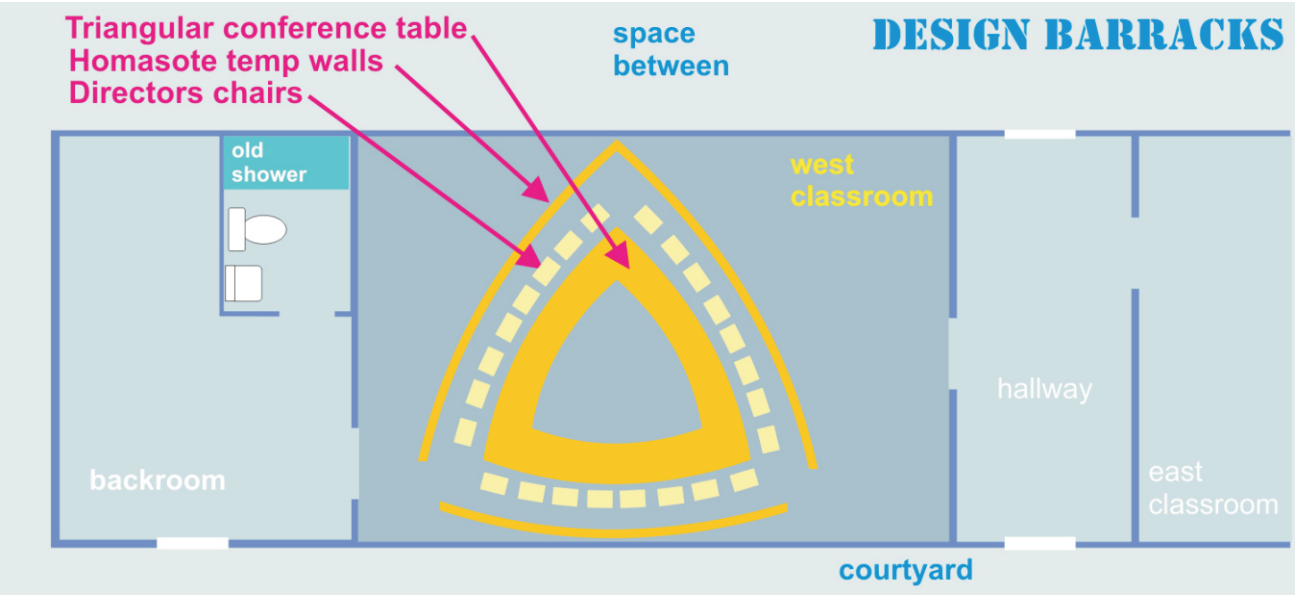
The day before Bucky's arrival we did a final cleanup; we put our tools back in the wood dome; swept the classroom floor; cleaned all the windows; stashed paint trays, brushes and roller in the old shower at the back of the bathroom; and equipped ourselves with new notebooks, pencils, and plenty of 35 mm film.

Buckminster Fuller, Teacher

On Monday morning March 1, 1965, our regular teachers escorted Buckminster Fuller into our bright new triangular classroom. We were in our seats around the bright yellow table, pencils sharp, notebooks open, with brains primed to absorb some knowledge.

After introductions, we showed Bucky the features of the triangular classroom: where the chalk was and how to use the overhead. Bucky took off his dress wool overcoat and put it in the back room, found his stool at the front of the class and was about to start.

He was probably dressed in one of his usual outfits; a white shirt, plain dark tie, dress shoes and either a nautical



blue blazer with gray slacks or a camel color jacket with dark blue slacks. The first thing Bucky said that day was, "where's the bathroom?" As he excused himself he explained that he often talks nonstop for three or four hours and that he didn't like interruptions. Our anticipation and anxiety were reaching cosmic proportions. What did he think of our special learning environment? What were we going to learn? Would we build a dome?

Bucky returned to the classroom after a long five minutes, sat on the drafting stool, put his hands together, bowed his head, and started thinking. After a 30 second silence—it seemed like an hour—he spoke. The lecture of a lifetime was underway.

A Bucky Lecture

Bucky asked us to think about the cosmos and what we should be doing in it. He segued from "the tantalizingly almost realizable," to some recent thoughts on astronomy and philosophical articulation that Fred Hoyle had written in the Saturday Review, a magazine of the times. Bucky explained how, "every local system loses energy through entropy but that nothing is really lost because of the law of conservation of mass and energy. Since mass is just very high frequency energy," he said, "we could view radiation as disassociative while collection is associative."

"We have always thought of the Universe as a play that we watched. Now we are a part of it. So, the big question we needed to answer," Bucky said, is "what should man be doing here in universe."

Bucky quoted Norbert Weiner's answer to that question, "man is the most important anti-entropic functioner in the universe," and then he added that Weiner came up with that, "about the same time that I did." Bucky still hadn't mentioned the special classroom that we had spent two months planning and building.

We heard about Harlow Shapley, the red shift, and generalization. We learned that the earth was gaining weight, according to astrophysicist Arthur Eddington, 100,000 tons a day to be exact. 100,000 tons of "stardust" according to Bucky. We covered the elements in the periodic table, discussed automation, and learned about sphere packing.

Bucky riffed on closest packing of spheres in various containers and wondered out loud how tetrahedrons and octahedrons might arrange themselves

spontaneously in way analogous to closest packing of spheres.

That was what we heard about on that first day of our own private Buckminster Fuller lecture series. That's an overview of what we tried to absorb that day. Actually, that was just a brief outline of about half of what we heard.

At the end of that first day, Bucky finally mentioned our classroom that had taken two-months to construct.

"Everything is design," Bucky said, "good design includes cleaning the toilet sometimes." He continued, "This morning I had to clean the sink and toilet in the bathroom before I could use them. That's what took so long."

As we had finished up the classroom we had cleaned our paint brushes and rollers in the bathroom sink and had stuffed our cleaning and construction leftovers in the old shower with nary a thought of bathroom cleanliness.

Bucky's Carbondale Office

A few years later I was working in Bucky's headquarters at the corner of Mill St. and S. University Ave. in Carbondale. Bucky seldom was in the office but it the nerve center of his world wide operations. All year long, Bucky flew back and forth around the world speaking to groups of students, architects, economists, planners, government officials, and the like.

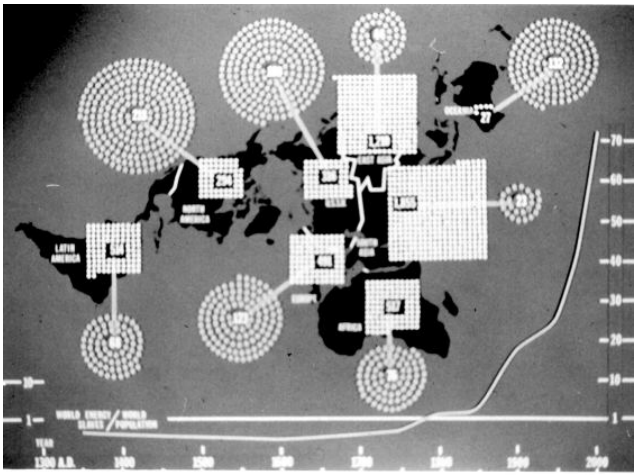
On the three or four occasions a year when Bucky visited the office he'd only stay for a few hours.

The office staff consisted of Naomi Wallace who arranged his air travel and handled his correspondence and Dale Klaus his right hand man. John McHale and Carl Nelson worked in the back room on the World Design Science Decade (WDSD) project, Bucky's archives, and various writing projects.

I worked in Bucky's office for a couple of years reading and clipping articles from the New York Times, scanning magazines for "trend" articles, and creating animated graphics of population and energy trends. I think Bucky came into the office just one time during my tenure.

I remember the day because everybody was keyed up. Naomi was looking anxious, Dale appeared stressed as he attempted to organize 3-months of Bucky's correspondence, John was editing drafts and making last minute corrections, while Carl was straightening-up around the office.

Naomi had a special project for me; would I help her clean the bathroom? It seems that Bucky had a thing about



cleanliness and if things weren't "just right," he'd take care of it himself and let you know about it afterwards.

The office bathroom was typical mid-century American; dark-walnut plywood veneer paneling, walnut-stained pine trim, and linoleum tile all cobbled together with a standard white sink and toilet. It was cheap, easy to build, poorly lit, with no thought given to sanitation. It was not "a machine for living;" and it bore no resemblance to the stainless steel Dymaxion bathroom that Bucky had designed 30 years earlier.

We cleaned the toilet and sink and polished the mirror and then we wiped down the walls. I remember Naomi and I, face to face, on our hands and knees scrubbing the floor and going over every last crevice where the toilet and baseboard met the floor tile. We must have done a good job, Bucky never

mentioned it.

A few years later, Lloyd Kahn, editor of Shelter Magazine asked me what I remember about working for Bucky. I told him this story about Bucky and bathrooms adding a few ruminations on possible Freudian cleanliness hang-ups.

The Dymaxion Bathroom

In 1991, the Henry Ford Museum in Dearborn, Michigan acquired the lone surviving prototype of Bucky's 1945 Dymaxion house. It came equipped with a version of his Dymaxion bathroom.A few months before the Dymaxion house exhibit opened in the fall of 2001, I visited the museum with my mom who was 90-years old. The house was just starting to be reconstructed inside the museum.

As we peeked through the cracks in the temporary plywood screen that surrounded the house A friendly museum guard came over and offered to take us inside the enclosure for a private showing.

I'd always wondered how Bucky had handled the sink and toilet in his Dymaxion bathroom. Looking at the backside of his Dymaxion bathroom unit I found the answer. He used a regular old toilet and tank underneath all that polished stainless steel.

The Dymaxion toilet wasn't a "machine for living," it was just the same old porcelain flush toilet covered with a shiny stainless steel shroud.

Everything is design, sometimes you have to clean the toilet.

Our second week with Bucky we built a 150 foot diameter kissing-tensegrity dome using bamboo that Bucky got from the U.S. Government.

But that's another story.