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This is a 6-meter (19.6-foot) LCD globe on display in Tokyo's National Museum of Emerging Science and Innovation. Over the course of a minute or so, it replays actual satellite images captured over the prior 30 days. Different visualizations include surface temperature of the continents, cloudcover, etc.

Photo Credit: Dan Lecocq



Coming To Know The Universe: Man Is The Measure

By Dan Lecocq

When I was growing up, science was in many ways one of my purest joys. Though I wouldn't have always been able to verbalize it as such, in reflecting, I realize now that that's what my fascinations were - scientific. I fondly remember spending days on end playing with Legos in the basement and reading books, occasionally realizing that I probably needed nourishment in order to continue. As I grew older, my voracious appetite for learning never diminished.

Now that I'm in an engineering school, college is everything I had hoped it would be. The best classes are the demanding ones, and the experience on the whole is very challenging - academically, personally and professionally. It almost feels as though the process is slowly expanding my consciousness as I build my knowledge of and appreciation for the world. To quote the movie *Waking Life*, "There are two kinds of sufferers in this world: those who suffer from a lack of life and those who suffer from an overabundance of life. I've always found myself in the second category." The same

might be said for college students: there are those who are eager for their release and graduation and those who are invigorated by learning at the institution. I find myself in the second group.

Now is an exciting time in science and in my life personally. Our potential as a community and as individuals seems to be constantly swelling, and I almost always feel overstimulated in the best way. Like the universe, I feel as though I am expanding and accelerating while doing so. Eventually, all existence will reach a mighty crescendo, frozen in the ultimate actualization of its potential. What a beautiful instant that will be. This kind of growth is all I have ever and could have ever hoped for - wonder, excitement and an appreciation for the world around me because there's just so much to look forward to.

At this particular juncture, I find myself growing and growing, each part of me as eager to expand as the next. I find myself often engaged in do-it-yourself projects, from

making a MacGyver-esque make-shift stove to installing a Linux distribution on my Xbox. My hobbies have become many and various, from snowboarding to circuitry to soap-making. There are simply so many things to be enjoyed.

As a child, I often wondered how adults could sit around the breakfast table and read the newspaper. Now slightly older and only slightly wiser, I “woke up” one day to realize that my daily schedule included several hours spent reading various internet publications. Though they are not quite the same format as a newspaper, I realized that somewhere between my childhood and now I had become one of those focused adults. From *Wired* magazine, to the *Lifehacker* netzine to the list of *Evil Mad Scientist Laboratories* projects, I am constantly devouring information. In this way, I hope to always be working, always learning, and always trying to improve myself.

I consistently feel as though I’m waking up from childhood amnesia. It’s like I’ve been listening in the whole time, and I’m very conscious of things that have happened, but the world looks so bright and new; past feelings seem so alien now. Former perceptions and questions now seem foolish in the light new experience and perspective brings. For example, as a child I spent so much time pondering circuitry and wondering at its byzantine complexity or trying to divine the nature of space and time. Now circuits seem workably complex, and my classes in modern physics have helped my understanding of the workings of the world. This continual awakening contributes to my constant state of in-the-moment wonderment.



Dry ice bubbles in a glass of water. Solidified carbon dioxide, at atmospheric pressure it exists at about $-78.5\text{ }^{\circ}\text{C}$ ($-109.3\text{ }^{\circ}\text{F}$). Can help keep foods and drinks cold (when they need to remain dry), make carbonated fruit, or even explode empty plastic bottles in your back yard.

Photo Credit: Dan Lecocq

Like countless American college freshmen, I entered college not knowing exactly what I want to do (I’ve since learned to embrace this scattered feeling), and driven only by a vague curiosity about what lay ahead. Now that I’m in the midst of it, I feel a stronger, more purposeful drive in my studies. One class is the basis for another, and that other class I want to take to such-and-such a purpose. Physics I led to Electricity and Magnetism led to Modern Physics, which will hopefully lead to Circuits and finally to Digital Logic. I appreciate the pedagogy so much more now, given my perspective so late in my studies. I feel as though the kind of Platonic form that is higher education is one of the most beautiful and virtuous pursuits in existence.

Looking back at my scholastic career, trying to derive my current state, I find only this amalgam of my feelings: Science is the essence of what we are as humans. It is what makes us unique as a species and ultimately the only way we can know or try to understand the universe. Sometimes I feel as though as blind wanderers in a dark cave, it’s all that we have. I am in awe of and thankful to be able to pursue science so rigorously.

<http://wired.com/>

<http://lifehacker.com/>

<http://evilmadscientist.com/>



A whale's skeleton is displayed at Tohoku University's Geology Museum in Japan.

Photo Credit: Dan Lecocq