Spring Volunteering Around NYC

Rich Templeton

On an overcast Saturday in April, members and friends of the Rockefeller community participated with 5,000 other volunteers in Hands on New York (HONY) Day. The purpose of HONY Day is to revitalize the city while raising awareness and funds for New York Cares, the largest volunteer organization in NYC, which “meets pressing community needs by mobilizing caring New Yorkers in volunteer service.”

At Marcus Garvey Park in Harlem, we picked up glass and trash and swept the sidewalks. We also had the opportunity to speak with other volunteers who hailed from a number of organizations, universities, and businesses around NYC, sharing in this wonderful day of service. Although we had to end our day early due to inclement weather, we had a fun time making the park a little cleaner and raising funds for New York Cares.

In May we volunteered at Carl Schurz Park near Gracie Mansion on 86th Street and East End Avenue. Our main task was to dig a trough for a big log, a remnant from a tree that had been cut down recently. While the job was simple in concept, it was rather difficult in practice, primarily because tree roots and concrete slowed down our digging. In the end, though, we prevailed: we dug the trough and then gingerly rolled the log into it, making a nice area for a future garden. The Carl Schurz Park Conservancy treated us to clam chowder for lunch, and we finished the day picking weeds. As the park has open volunteer days once a month, we plan to go again in the future.

If you are interested in volunteering at Carl Schurz Park—or volunteering in general—please come to the volunteer group’s open meeting in July, when we will plan activities for the rest of the summer and the fall.

For additional information, please see:
http://www.newyorkcares.org/
http://www.carlschurzparks.org/index2.html
This month, all staff and students at Rockefeller University received an email that extolled the virtues of locally grown food and urged us to eat it. We were told that locally grown food is healthier, tastier, and better for the earth. Although these statements are common assumptions, the last is hot air at best and has the potential to do real harm, while the first is not supported by evidence (and as for taste, there’s no accounting for it). A clear-headed analysis of the data shows that importing fruits, vegetables, and meats greatly reduces carbon emissions.

Let’s start by looking at why we grow food where we do. It all comes down to economics: we grow fruits and vegetables and raise animals where there is a comparative advantage to do so. While in the past, agriculture dominated the planet, immense technological leaps have meant that the land and labor devoted to agriculture (at least in the developed world) have diminished. When there are dozens of other productive uses for this land—from housing to factories to power generation—we only grow where it is economically advantageous. At the same time, the myriad greater opportunities open to mankind have led to a great exodus from the countryside, which for most of history has been a place of stale destitution, rather than the verdant Eden that some would like us to think. In the developed world today, people farm only where it is profitable.

To be sure, this picture is distorted by various agricultural subsidies; however, while deleterious in and of themselves (a topic for another column), subsidies affect only the staples markets, mostly grain, sugar, and cotton. The reason, then, that we grow corn in Kansas, grapes in Chile, and lamb in New Zealand, is an immense productivity advantage. Due to economies of scale, productivity necessarily implies greater energy efficiency and less environmental damage. Indeed, the less land we use for agriculture, the better off the earth is. We need fewer tractors to bring in the harvest and fewer road-miles to collect the crops and offer them to consumers. Furthermore, too much agriculture takes place in marginal lands such as the high plains in the US, the river valleys of Australia, and the Sahel throughout Africa. (Incidentally, this is why organic farming practices, if adopted on a large scale, would be extremely harmful to the earth—yields are far lower than in conventional farming, necessitating the use of far greater quantities of land). There is no reason efficient agriculture should be any less healthy than growing crops locally, since the more energy that is available to plants and animals, the more they can produce the nutrients and flavors we desire.

But how is it that importing lamb from New Zealand is good for the environment when it must be shipped halfway across the planet? The answer is that shipping is far more efficient than most people realize. If you put a large container ship in the ocean and give it a strong push, it needs extremely little fuel to get even halfway around the earth. In terms of ton miles per gallon, a container ship is eight times more efficient than a truck and two and a half times more efficient than rail (itself a marvel of efficiency). The low cost of shipping reflects its efficiency. Additionally, the US has by far the best rail freight system in the world, further reducing shipping costs (and overall carbon emissions). Not only is it cheaper for a person in London to eat lamb imported from New Zealand than lamb raised anywhere in the UK, but the imported lamb generates far fewer carbon emissions than the locally raised lamb. England is a singularly bad place to farm with its cloudy, rainy, climate, whereas New Zealand is ideal for sheep. The sea transport is, of course, extremely efficient.

The false assumption that shipping generates excessive carbon emissions shows the woeful lack of scientific rigor underlying the green task force’s recommendation. Numerous studies on this very issue have been conducted. The conclusions are startling: on the east coast of the US, the carbon emissions are lower for importing French wine than Californian wine. They only become equal somewhere in Ohio.

Consider the suggestion to shop at farmers’ markets. This suggestion is one that has been subjected to scrutiny and is found wanting. Grocery stores are marvels of efficiency—they use large trucks (more efficient per unit weight) to collect both imported and locally grown food. They store it in large quantities that allow immense economies of scale. If people have to drive to the grocery store, it’s frequently not very far at all. Contrast this with farmers’ markets: farmers drive less efficient vehicles to many different places to sell their wares. An even less efficient system would be to buy food by driving to the farms directly, or to have the farmer deliver it. I suspect that ordering from Fresh Direct is the least carbon-intensive form of food purchasing possible.

Shipping and rail freight are not the enemies of the environment. The enemy is inefficient agriculture delivered by inefficient means. The complexities of this case only demonstrate further why carbon must be priced. Simple-minded application of “go-green” ideology results in practices that are damaging to the planet—from local food to many types of organic crops. At a scientific research institute, we deserve better, more thoughtful recommendations from our environmentally conscious peers.

In science, we typically dwell on the “what,” “who,” and “when” of discovery much more than the “how.” There are several obvious reasons for this. Of these four types of facts, the “how” is usually the first to go obsolete. It is the first to become buried in dated jargon that will puzzle those curious in the future. And in the wake of technological advance, it is often the first to be taken for granted. No wonder we look at past “hows” and wonder what the fuss was about, because, well, didn’t they just have iPhones?

It occurs to me that many instruments in the modern laboratory might suffer the same detached bemusement. And these, of course, are the ones that survived obsolescence (for now). There must be hundreds, if not thousands, more “hows” that we’ve long forgotten, the ones thrown out with each upgrade or perhaps occasionally encased in a museum display. On the one hand, one could see that as a victory: the technology did its job purposefully, enough to warrant a better device. Still, on the other, are all the things we forget with many instruments and technologies, such as the creative passions of their makers or what discoveries they opened up. In short, we lose sight of how they made the world a richer place, and perhaps more generally, a better one.

Thankfully, this university has a large repository of the “hows” of yesteryear. Tucked in the belly of Caspary Hall has been a little known but remarkable exhibit of scientific instruments from the historic instrument collection. In this series, I’ll be profiling an instrument per month. In these profiles we’ll explore what it was used for and why it was important. And we’ll start with the Beckman Model G pH meter, made in the late 1930s and used in the laboratory of Oswald T. Avery (accession no. 33).

In the era before insulin, diabetes was a tough disease to manage. If you were a clinical chemist in the early twentieth century, it was both tough and frustrating. The most feared complication of diabetes was (and still is) ketoacidosis, an often fatal increase in blood acidity due to the buildup of ketone bodies. As a clinical chemist, you reason that a suitable treatment would be to reduce blood acidity to normal levels, that is, to supply an alkali (a base). But how do you know how much to administer? Too little and it won’t have an effect; too much and you might cause alkalosis (also bad). The ideal would be to have a machine that could quickly and sensitively measure the acidity or basicity, in other words the pH, of blood directly from a small amount of blood to guide treatment.

For clinical chemist Donald van Slyke in the Rockefeller Institute hospital in the 1910-1920s, defining the acid/base balance in diabetes was a laborious but ultimately solvable problem, and a heroic one without a pH meter. Only in the mid-1930s when van Slyke’s colleague, Duncan MacInnes, a Rockefeller electrochemist, invented a suitable glass electrode for measuring hydrogen ions directly was even the idea of a simple meter for small volumes possible.

Such a machine had remained a dream for van Slyke, but it hadn’t for Arnold Beckman, who ran into a similar problem in the mid-1930s as van Slyke had a few decades earlier. Beckman was a chemist at Caltech at the time, and was approached by an old classmate in the fruit industry who needed a better method of measuring pH in citrus fruit. The glass electrode was in use by then, but it was typically hooked up to a galvanometer, and as a result, required ever-thinner (and extremely breakable) glass electrodes. Beckman used the more durable MacInnes electrodes and substituted the galvanometer with a newer and more rugged invention: a vacuum tube voltmeter. It worked.

The story of Arnold Beckman’s subsequent entrepreneurial venture to market the pH meter is the stuff of biotechnology legend. Rockefeller scientists were early adopters of the Beckman instrument and it soon became as ubiquitous as thermometers in laboratories all over the world (over 350,000 Beckman meters were sold over 50 years). The Model G pH meter on view in Caspary was purchased by Oswald Avery for use in the laboratory in 1938 for a little over $200, an expensive sum for the time. This machine remained in service well after Avery’s retirement in 1945, but it is notable for having been used by Avery and Maclyn McCarty during their DNA work. Crucial too, in hindsight, for had the pH been slightly acidic in McCarty’s DNA prep, the usually stable DNA molecule would’ve been hydrolyzed at glycosidic bonds on purines. The resulting apurinic DNA is super fragile, and easily breaks (an aside: I learned this the hard way last month, when I added the wrong and slightly acidic buffer to some cDNA samples. The subsequent PCR reactions were not pretty!) It’s perfectly conceivable that had McCarty been unaware of the pH, the transforming activity of DNA might not have been observed. Thankfully, this trusty and commercially available pH meter was on hand to ensure that this critical parameter was not an issue. And the molecular biology revolution began.*
Will the Real “Johnny Appleseed” Please Stand Up?

JEANNE GARBARINO

When I think of “Johnny Appleseed,” a vision of a happy-go-lucky, overall-clad young man striding along the countryside while sowing seeds of apple-y goodness immediately comes to my mind. While the legend of Johnny Appleseed paints a picture of some mythological pioneer making his way across the American west, Johnny Appleseed was just a clever businessman who tried to stay a bit ahead of the settlers who were westward-bound.

Born on September 26, 1774 in Leominster, Massachusetts, John Chapman was the son of a former “minuteman,” Nathaniel Chapman. Nathaniel felt that his son should have a career as an orchardist and when John was just fourteen, his father signed him up to work as an apprentice to a local apple farmer.

As he was learning to become a farmer himself, John would often strike up conversations with settlers as they passed through his town. He would hear reports of fertile soils throughout the great frontier, which, in combination with his love for apples, ultimately led to his desire to travel west so that he could plant apple trees. So, around age eighteen, John Chapman left the tiny town of Leominster with his younger siblings in tow, and headed in the direction of the setting sun.

According to various records, it is thought that John began to plant apples in the Pennsylvania area, moving west toward Ohio, and eventually made his way into Illinois and Indiana. However, unlike the images conjured up by the legend, John was very systematic in how he sowed his beloved apple seeds. He would find large areas of fertile ground as he wandered the countryside—likely points of future settlements. Once the land was appropriately sized up, he would plant an apple tree nursery, protect it from livestock by constructing a fence around the perimeter, and leave it in the care of a neighboring farmer before moving on to the next area. If he timed it just right, the saplings would be big enough to be sold for transplant upon the arrival of settlers. It wasn’t long before John Chapman disappeared into obscurity and Johnny Appleseed took his place.

Interestingly, a majority of the apples grown during that time period were not used in the same way that we use apples today—the expression “as American as apple pie” would not enter our vernacular until many years later. With that said, if you were to guess the main purpose of growing apples during that time period in America, I am sure you would easily reach the answer: to make alcoholic beverages. Since the seeds found within apples are rarely genetically representative of the apples from which they came, it is impossible to guarantee the quality of fruit that will be produced. Therefore, current apple farmers rely mostly on methods of asexual propagation, such as grafting, to keep producing tasty fruit. But when apples are used to make hard cider, it doesn’t matter how they taste—cider mills (past and present) can use even the most inedible apples. Luckily for Johnny Appleseed, cider mills were willing to give him apple seeds for free, primarily because they wanted to keep up their supplies. Needless to say, Johnny Appleseed did his fair share of making people happy, in more ways than one.

Most of us only know of Johnny Appleseed in the context of sowing apple seeds; however, there was much more to this man. Indeed, Johnny Appleseed wandered across the not-quite-yet United States and can be credited with the introduction of the apple to the west coast. However, he also used these opportunities to preach about his religious views, which were that of the Swedenborg belief system. A major principle held by the Swedenborgians was that if you suffered in the present life, you would be comfortable in the next. This is primarily the reason why Johnny Appleseed wore the worst clothing (even though he could easily afford nicer attire) and often went barefoot. In line with his religious attitude, Johnny Appleseed felt connected to animals—he wouldn’t even hurt a fly, literally. And, of course, he was a vegetarian.

Johnny Appleseed was hugely respected during his time and easily won the hearts of the local communities, including those of the Native American population. He was always welcomed into someone’s home and would often tell long stories in exchange for food and a place to rest for the night.

Johnny Appleseed wandered around the American frontier until his death, thought to have occurred sometime around 1845. During his roughly 70 years on Earth, John Chapman did what it took to become the stuff of legends. Many have credited him with changing the American agricultural landscape, and with leaving behind a legacy that is sweet, crunchy, and crisp. I only wonder if he ever had a chance to taste an apple pie.

References and further readings:
John Chapman—Also known as Johnny Appleseed. Ohio History Central. (http://www.ohiohistorycentral.org/entry.php?rec=94)
As the acutely age-aware sixties generation grows old, it seems that there will be a great many celebrations of a great many milestones. In May 2011, the man who refused the title of "spokesman of his generation," Bob Dylan, had his seventieth birthday. Reading all the tributes to the illustrious poet/musician/performer, I remembered a great essay I’d read about 25 years ago by the famous art historian, the late Sir Kenneth Clark, entitled, The Artist Grows Old, and wondered if it would help me gather insights for reflecting on Dylan’s progression as an artist. Clark had his own moment in sixties popular culture as host of a series for television called “Civilization”, which essentially brought high culture and a sophisticated explanation of it to the living rooms of ordinary people around the world. Truth be told, I’ve read Clark extensively, and I’m as great a fan of his as I am of Dylan’s.

Clark warns against comparing aging painters to aging poets and musicians (but does so anyway), and he summarizes the characteristics of the old-age style of sculptors and artists as “a sense of isolation, a feeling of holy rage, developing into what I have called transcendental pessimism; a mistrust of reason, a belief in instinct. And in a few rare instances the old-age myth of classical antiquity—the feeling that the crimes and follies of mankind must be accepted with resignation.” Oddly enough, Bob Dylan began in the 1960s with these characteristics, except that while presenting the ridiculousness and terribleness of the crimes of mankind, his anger was channeled into changing it. Perhaps the greatest success of the expansion of a moral and social consciousness in the sixties was the number of gains made for the civil rights movement, which Dylan wrote beautifully and powerfully about. And one of the generation’s great failures was the inability to stop the tide of war and the production of weapons that proliferated around the globe. One cannot doubt the power of Dylan’s song “Masters of War,” his youthful attack on the armament industrialists, with its vicious final chorus that begins with the lines “And I hope that you die/And your death’ll come soon.” Perhaps the response these “Masters of War” would have for Dylan today would be to say back: “I hope you grow old/

Bob Dylan Turns 70: The Artist Grows Old

Bernie Langs

Dylan onstage at the Azkena Rock Festival, June 26, 2010

Credit: Wikipedia
And your words will be irrelevant.”

Rolling Stone magazine recently published a list, with descriptions and some blurbs written by celebrities, of the 70 greatest Bob Dylan songs. Almost all of them are from the sixties and seventies. There are a few people in popular culture who have added a lexicon of expressions to world lingo comparable to Shakespeare (but really, not quite) and the greatest would have to be Dylan. Nearly all of those pearls come from those first two decades of his work. One could say that he changed the way popular music is written, and his unique voice changed the field of what popular music could sound like. Listening to Dylan in the sixties opened minds to new horizons and while The Beatles were singing about holding hands and giving advice on puppy love, Dylan was tackling great social issues and writing poetic lyrics that have yet to be deciphered.

The artist is growing old. Today Bob Dylan hosts a radio show where he tries to expand the tastes of his listeners by playing music not normally heard on the airwaves. I’ve never heard the show, since you have to be a Sirius XM subscriber to gain access. Dylan’s most well-received recent artistic statement probably came in the album Time Out of Mind (1997), much of which centers around simple chord progressions and pretty good reflective lyrics. One of my own problems with Dylan has been the lack of attention to production, which, with simple songs, can lead to monotonon. Dylan himself loves the cover version of “All Along the Watchtower,” which Jimi Hendrix recorded. Hendrix’s interpretation has a masterful production quality and one would bet he put a great deal of time into capturing Dylan’s downright chilling tale. Eric Clapton once left a Dylan recording session in complete puzzlement—he noted that it moved quickly and that when Bob’s coat buttons knocked against the guitar, there was no retake. When Dylan does pay attention to experimenting with sounds, the results are great, with songs such as “Everything Is Broken” and “Most of the Time” from the Oh Mercy album. Of course, he had studio master Daniel Lanois behind the production board for that collection.

So much has been said and so much has been speculated and downright mythologized about Bob Dylan. I often wonder what he thinks about all of this attention, about being the first celebrity to have his actual garbage rummaged through by a reporter looking for leads. When I read Dylan’s autobiography, I heard the voice of the man I’d always imagined him to be. A friend of mine who is a much bigger fan that I am was disappointed in the book, and couldn’t hear the voice of his generation, the voice of a man who changed the world. There’s an old press conference with Dylan from the sixties where he stops everything and jokes, “Hey, I’m just a song and dance man.” That’s both spot-on and way far-off at the same time.

Please Take a Tea Bag!

Alexandre Bolze

For the past month or two, I am sure you have noticed that we are forced to take a soda, a coffee, or a tea bag with the value meal at the cafeteria. The value meal is a discount if we take one meat, two sides, a small salad, and a drink (soda, coffee, or tea). It used to be that water was considered a drink but not anymore. Replace the root beer with water and you will pay an extra $2. There is no way around it. I have been wondering why and after some discussions with Mr. Teabags, here are some potential reasons.

1. It is to increase overall happiness. It is a great way for you to enjoy M&M’s! And who is not happier after some M&M’s or some Dirty Chips? How many times have you thought about getting those M&M’s but you did not because you felt the pressure of the person behind you, hands already on the wallet, pushing his tray, urging you to pay? Now that you have plenty of time while waiting for the person in front of you to go get the magic teabag, you can go for the M&M’s! No more pressure. And since you also got the teabag, the M&M’s are free in a way. Admit it, m&m’s are pretty good after a green salad!

2. It may also be to make you eat super healthy. Not value meal-healthy, but super special meal-healthy. The $7.95 special one. The cafeteria made a huge investment for us and worked with a nutritionist to come up with new healthy meals at least once a week. These do not include soda or coffee or tea of course. By making the value meal less healthy, the cafeteria pushes the few people that decided to quit pizza for fish and rice to opt for the super healthy and special meal.

3. More importantly, it is to help your country. We all agree that the most important goal for a country, and for our civiliza-
Book Review: Bossypants by Tina Fey

Carly Gelfond

I had passed the window of the Community Bookstore in Park Slope, Brooklyn at least eight or nine times on my early morning runs before I finally stopped in one day after work. On each of those mornings, for a split second as I sped by, I would glimpse the cover of Tina Fey’s new book, Bossypants. I was never quite sure I was seeing it clearly until the day I finally took a copy down from the bookstore shelf, just as another customer glanced down at it in my hands on her way to the register and laughed uncomfortably. That, in fact, might be a good way to introduce a review of this book: It will, in all likelihood, make most of you laugh, maybe a little bit uncomfortably at times, while at least a few of you will find yourselves somewhat confused by her humor. Dad, if you’re reading this, I’m looking at you.

To those readers hoping to find a confessional account of an author’s closely-guarded secrets, family dramas, and personal struggles, I might recommend that you buy Bossypants to use as a coaster for your drink while you delve into works by Joan Didion, Vladimir Nabokov, and maybe Barbara Walters. For those of you interested in lighter stories told with humor of the sort that seems always, enviably, to flow freely from Tina Fey’s pen, you will truly love this book. Bossypants is self-deprecating and smart: while the anecdotes are selected for their entertainment value, the author also assumes an intelligent readership. Bossypants showcases Tina Fey doing what Tina Fey does best. The work may not be a comprehensive portrait of the life of an actress whose résumé boasts such positions as head writer of Saturday Night Live and creator of the television series 30 Rock (though these experiences both happen to feature prominently in the book). But that’s not the point: the way in which one chooses to tell his or her story is just as important as the stories themselves.

Some of the enjoyment I found myself getting from Bossypants derived from Fey’s ability to find the funny in experiences nearly all of us have gone through. Many readers will commiserate with the author during an account of her mother’s parental bewilderment when confronted with her daughter’s entrance into puberty. I read this chapter with hilarious recognition as Jeanne Fey passes along to her daughter a pamphlet entitled, Growing Up and Liking It, before slipping out of the room. If memory serves, my growing up and liking it equivalent had been the book, What’s Happening to Me? After perusing its pages of colorful illustrations, I recall waiting out the subsequent months in terror that I would sprout cartoon breasts the “completely normal” shape of traffic cones or overgrown summer squash. Fey, for her part, doesn’t recognize her first period when it comes since nowhere in Growing Up and Liking It does it ever say that your period is not hurt anyone.◉

Growing Up and Liking It is self-deprecating and smart: while the anecdotes are selected for their entertainment value, the author also assumes an intelligent readership. Bossypants showcases Tina Fey doing what Tina Fey does best. The work may not be a comprehensive portrait of the life of an actress whose résumé boasts such positions as head writer of Saturday Night Live and creator of the television series 30 Rock (though these experiences both happen to feature prominently in the book). But that’s not the point: the way in which one chooses to tell his or her story is just as important as the stories themselves.

Some of the enjoyment I found myself getting from Bossypants derived from Fey’s ability to find the funny in experiences nearly all of us have gone through. Many readers will commiserate with the author during an account of her mother’s parental bewilderment when confronted with her daughter’s entrance into puberty. I read this chapter with hilarious recognition as Jeanne Fey passes along to her daughter a pamphlet entitled, Growing Up and Liking It, before slipping out of the room. If memory serves, my a “blue liquid that you poured like laundry detergent onto a maxi pad,” like in the commercials.

Cute anecdotes do not a bestseller make, however, and were that this book’s most winning attribute, it wouldn’t be bringing much to the memoir table (an already cramped affair in which all the guests sit nervously wondering whether there will be enough dessert to go around). The game-changer here is that Bossypants is something smarter than just a funny romp through awkward adolescence, teenage heartbreak, show business, motherhood, and other experiences that test one’s patience. Fey, after all, has spent years as a writer for television and got her start as a comic at Chicago’s famed improvisation comedy club, Second City. She is equal parts writer and performer and this work is an amalgam of both. It reads as an off-the-cuff performance, but the writing is clean, the observations are astute, and the delivery is confident.

In one chapter, Fey tells the story of the summers she spent as one of the few straight participants in a local youth theater program mostly attended by gay teens. As such, she befriends a whole cast of colorful characters whose antics distract her from the watery bog of a recent teenage heartbreak. It is clearly one of the most enjoyable, memorable summers Fey has ever experienced, and yet as it all starts to wind down, as all summers must, she is surprised to be confronted with an uncomfortable realization about herself. This part of the book showcases Fey at her best: as a smart person who pauses just long enough to reflect on a key moment of her life before reminding us who we are dealing with here. Queue joke about lesbians, squirrels, and nachos.

For much of the book, Fey is poking fun not only at the cultures she is a part of (America; show business; motherhood, etc.), but also at herself—for recognizing the absurd behavior around her without being above it. In the chapter, “All Girls Must Be Everything,” Fey draws attention to her straight Greek eyebrows: “They start at the hairline at my temple and, left unchecked, will grow straight across my face and onto yours.” The Tina Fey that mocks people who demand womanly perfection also unabashedly embraces Photoshop: “If you’re going to expend energy being mad about Photoshop, you’ll also have to be mad about earrings. No one’s ears are that sparkly! They shouldn’t have to be!” Needless to say, in Tina Fey’s world, no one escapes critique.

In the end, I think that Bossypants is a good book because it shares a certain ironic quality with other successful memoirs: it isn’t only about its author. The best memoirs are also about us—the readers—because most of us read memoirs with our own stories in mind. No matter that we’ve never been to the moon, or been married to a president, or started our own primetime television show. In other people’s stories, we find that we all share some version of the same kinds of imperfect human experiences. And though we’d like to think we wouldn’t change our eyebrows for the world, we’re in good company when we admit that a little Photoshop work never hurt anyone.”
Life on a Roll

Untitled by Carolina Prando

Ceiling in Congress Hall, Philadelphia, PA by Elodie Pauwels