

Natural Selections

A NEWSLETTER OF THE ROCKEFELLER UNIVERSITY COMMUNITY

THE SOUNDS OF SCIENCE MUSIC PROJECT

JOHN LACAVA

When do sounds become music? An answer to this question has been sought in the realm of audio recording since the 1940s, starting within the genre known as *musique concrète*. One does not need to dig back that far to find primary examples of artists incorporating sounds not derived from traditional instruments, or electronic synthesis, into their compositions. Off the top of my head: Square Pusher, Amon Tobin, and Matmos are all relevant and well-known examples of this sort of artist. People are using diverse sources of sound as the basis of successful and popular musical compositions. They must have figured out when sounds become music.

Some examples produced by the above artists can be considered quite niche, and others more popular. With this in mind, I want to tell you about a little project I have going: The Sounds of Science (SoS) Music Project. This project takes audio samples derived from recordings made in biology laboratories and uses those samples as a big part of the basis for a composition with musical appeal to a broad audience. That's right, the SoS team, armed with microphones and recording gear, stomped into the lab and recorded the sounds of machines and apparatus found commonly in biology laboratories. The sounds recorded were basic things like water bath shakers, centrifuges whirring, magnetic stir bars stirring in liquid filled carboys, Falcon tubes of liquid being vortexed and high pressure air valves releasing. The recording was primarily carried out in the Rout lab and elsewhere on the 6th floor of the Bronk building. The result was a notably rich collection of biology lab-related sounds. These are the same sounds most of us hear repetitively day in and day out, many of which have a notable periodicity. In combination with other machines, they can generate a chorus of syncopated rhythms, and it was this chorus as I heard it at my bench that inspired me to conceive this project.

That swiftly became fused with another idea that I had been pursuing much longer but without notable success: the public communication of science and technology through art. Realizing that I may be able to use music as a means to communicate biology to the public, I set out to get a group of people together to make this happen. Approximately nine months ago, I sent the first emails around the Rockefeller University (RU) campus, and received an overwhelmingly positive response from many individuals on campus. It was, as I have come to learn, characteristically RU. Since then the SoS team has grown steadily to include a range of participants with different contributions and motivations. Get information about the whole team by visiting our website: www.soundsofscience.net. Amongst the core members are the music producers Dan Kramer, Nicole Jung, and Jim Carozza. Dan and Nicole are both alumni of New York University's music technology program, and Jim you know as RU's Audio/Visual specialist. Together we set out to infuse music with biology and share it in the hopes of bringing the themes and motifs of science to the public.



The Distant Future: The Year 2000. Photograph by Manon Peyrou

We hope to seed a presence for biology as something cool in the popular culture.

For this reason our project does not aim to be too esoteric nor to invent a new medium through science-as-art. There are other collectives for this, whose target audience is likely to be less broad. Our goal is to create infectious grooves that get people listening, enjoying, and feeling the music. We hope that through this endeavor we can draw our audience into the stories behind the music, and into the motifs and themes of biology. Could it be possible to increase public awareness of biological research as a component of modern culture this way?

Version 1.0 of our Web site will launch in February to coincide with this month's issue of *Natural Selections* and will include several tracks produced by the SoS team, as well as digital photos and

biographical data on the team. However, in order to create a community around this idea, we intend to launch version 2.0 of the Web site that will make our entire database of samples available to the public. We want to accept samples uploaded by scientists and engineers from around the world and from diverse sources. We'll allow music producers, or any artist, to gain access to these sounds for use in their own productions. Those productions could, in turn, be shared with the world through our site, and others as well. There are many possibilities, and the project evolves continuously, but these are our driving forces in the near term. A performance on the RU campus may not be not far off!

It should be noted that this project has been possible because of enormous support from the RU community as well as the time and contributions of a number of artists and producers from around NYC and the

world. See our Web site for more information about the interesting characters and personalities involved! The RU Postdoctoral Association contributed financially to our project early on, which really helped get things off the ground with respect to recording and production. Additionally, Jesse Ausubel, Director of RU's Program for the Human Environment, has been enormously supportive both financially and in facilitating professional networking opportunities with industry representatives and academics alike. Juliet Zhang, research assistant in the Heintz lab and web designer extraordinaire, has taken the lead on getting our Web site up and running. Most of the people working on or supporting this project are doing it solely for the love and sharing of creative expression, or in my own case, in chasing the dream of achieving an effective, honest, and cool public communication of science and technology. ☺

Something Cool to See Outside of NYC

JEANNE GARBARINO

When you ask the residents of Carmel, NY what some of the defining characteristics of their hometown are, one might answer watershed area for New York City, beautiful scenery, and/or home to the late Captain Lou Albano. I can assure you, however, that the location of the largest Buddha statue in the Western Hemisphere does not even make it on the radar for most locals. Having attended Carmel High School, I was shocked to only learn of this statue and the Chaung Yen Monastery (CYM) that it calls home during my summer break before my senior year of college. I am not sure why this place is not more well-known; I guess religious establishments, especially those entrenched in sacred Buddhist philosophies, don't really tend to advertise.

Under the direction of the Buddhist Association of the United States (BAUS), the Chaung Yen Monastery is a Pure Land Buddhist monastery with free admittance to anyone who chooses to visit. You can tell that there is a different energy the moment you pull up the very long and unpaved driveway. Everything on the property is done and cared for by the residents of the monastery—from the groundskeeping, to the cultivation of food crops, to even the construction of buildings and internal infrastructure. Interestingly, it seems that the bulldozer and the other construction

equipment (which are stored in a small clearing in the woods along the side of the driveway) are from circa 1975.

Once you park the car, the most logical direction to walk seems to be up a quarter-mile inclined path lined on both sides with magnificent statues (all littered with loose change). At its top are two bell towers standing at the base of the Great Buddha Hall. Following the traditional architecture of the Tang Dynasty, this building is definitely the most visited building on the property (well, maybe tied with the cafeteria). This is because this is where the 37-foot statue of Buddha Vairocana lives. This is not the only impressive feature inside this beautiful structure; the huge statue is only but one piece of the spectacular artwork. Surrounding the great Buddha are 10,000 miniature Buddha statues as well as twelve bas-relief paintings of the Bodhisattvas—states of dedication and compassion leading to pure enlightenment. This is an active place of worship and one must be respectful while inside (obviously).

Although breathtaking, the Great Buddha Hall is not my favorite part of a visit to the CYM. Assuming I time my visit to fall between the hours of noon to 1 p.m. on a weekend (which is almost always the case), I indulge in the five-dollar vegetarian lunch served buffet style in the dining hall, also known as "Five Contemplation

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Hall." It is named this in order to remind us to be mindful and grateful while eating—mindful in such a way that prevents us from liking or disliking certain dishes and grateful for the food being provided to us. It is quite apparent that I am far from achieving enlightenment since each dish is more delicious than the last (so much for letting go of attachments). The ingredients used are so fresh and the dishes are constructed masterfully. Now, this is from the standpoint of a westerner raised on steak and potatoes. I am sure that anyone raised in a traditional Asian household would likely compare the meals to what their grandmother made.

If you are traveling west on Route 301, be careful not to pass by the Chaung Yen Monastery on your right as the only signage demarcating the location of the driveway is a very small wooden sign intricately placed amongst the scenery along the roadside. But, because the CYM is located in a rural section of Putnam County that tends to be snow-laden for most of the winter, it is closed to visitors until March 31, 2010. However, I urge you to visit, especially during the warmer months. There are many more programs besides the vegetarian lunch including guided meditations, Dharma talks, and book discussions. For more information, check out www.baus.org. ☺



Gorilla babies. Photograph by Zeena Nackerdien

Rwanda: My Recollections of Majestic Beauty and Tragedy

ZEENA NACKERDIEN

The Gorillas

Rwanda, a central African republic no bigger than Belgium, piques the interest of avid travelers for many reasons. Perhaps it is the lakes surrounded by mostly tilled hills ranging from 2,952 feet to more than 13,000 feet above sea level. Others may come with binoculars and tripod cameras in hand to view the diverse flora and fauna, paying special attention to the gorillas in the northern part of Rwanda. Some people may think that they know this country based on news of the genocide or after having viewed the movie *Hotel Rwanda*. The movie showed how Paul Rusesabagina, played by Don Cheadle, saved more than a thousand people during the genocide by sheltering them in a hotel in the capital, Kigali.

For this traveler, the mountain gorillas native to the Birunga National Volcano Park provided one impetus for a visit. A combination of studying the American naturalist, Dian Fossey's work as described in *Gorillas in the Mist* and reading about successful efforts to teach gorillas sign language fueled my fascination with these primates.

The chain of extinct volcanoes known as Birunga—or Virunga in the Democratic Republic of Congo (DRC)—forms a natural barrier between Rwanda, Uganda and the DRC. It also serves as one of the few remaining habitats of mountain gorillas. Here, on the slopes of Mounts Gahinga (11,397 feet), Sabyinyo (11,922 feet), Bushokoro/Bisoke (12,175 feet) and Mount Karisimbe (14,786 feet), gorillas can live freely thanks to conservation programs. International aid, Rwandan authorities and involvement of locals in gorilla-related activities, e.g. tracking and annual naming ceremonies for newborns, have buffered the negative effects of poachers.

Gorillas live in groups led by a dominant male, which is a silverback with signature gray hair, a few blackbacks (younger males), females, and newborns. The 400-plus-pound silverback leader of the Sabyinyo group provided this human primate with the thrill of a lifetime upon first sighting. Our guides had prepared us on gorilla

etiquette and stories about this group that had been habituated to humans. However, nothing could quite prepare one for the thrill of seeing these gentle creatures supplementing their largely vegetarian diet with insects and going about their daily business. Crouched just beyond the twenty-two feet gorilla “personal boundary,” we watched in awe and amusement as the silverback “womanizer” interacted with his seven wives. His offspring, playing with raucous enthusiasm near their mothers, had our cameras working overtime. I learned firsthand the value of interspecies communication when grunts exchanged between the guides and the silverback kept him at bay. The human group agreed that seeing their non human brethren made the arduous trek up and down the rain-drenched mountain slopes worthwhile. Subsequent fireside chats included tales of one group being charged by a blackback, while another person related a more positive form of communication in the form of a gorilla tapping him on the shoulder. Viewing golden monkeys, other wildlife, and raptors such as ogre buzzards provided an added bonus.

Genocide

When one winds one's way back down roads and is occasionally mobbed by crowds of smiling children shouting “muzungu” (white/light-skinned person), one might imagine having stumbled upon a hidden paradise. However, the grinding poverty, lack of potable water and sanitation, sacks of USAID food donations sold at markets, and Kanyarwandan (national language) signs describing the genocide point to the harsher realities of living in Rwanda.

The Kigali Genocide Memorial Center, built on a site where more than 250,000 people are buried and guarded by armed soldiers, drove home the impact of this recent tragedy. Manicured gardens encircle the mass graves and exhibits outlined the genocide story. Briefly, physical features/changing personal circumstances among the Hutu, Tutsi and Twa peoples of Rwanda were legally codified by colonial powers in the form of the introduction of identity documents (reminiscent of apartheid) in 1932. This Tutsi-Hutu ethnic distinc-

tion differed from the prior system, where differences among them were viewed as more akin to livestock versus agricultural farmers. The positive development and practical benefits of European occupation were therefore counterbalanced by the negative influence of socially enforcing a distinction between the Tutsi and Hutu peoples. Simmering tensions finally boiled over on April 6, 1994, when the jet carrying Presidents Habyarimana (Rwanda) and Ntaryamira (Burundi) was shot down over Kigali by unknown assailants.

Today, ten million Rwandans struggle to cope with the knowledge of almost a million deaths, displacement of two million people and the consequences of tending to rape victims and countless orphans. Stories about thousands of bodies washing down from the Kagera River into Lake Victoria in Uganda highlighted the horrors of the genocide to this traveler. A growing body of literature, art, medicine and the involvement of the justice system on local and international fronts have begun to address the genocide. Recently, the Canadian Supreme Court sentenced a genocide fugitive, Desire Munyaneza, under its "Crimes against Humanity and War Crimes Act."

The White

J.L. SMITH

This letter was found in the Bronk Elevators last week. If anyone has any information about the identity of the author, please contact Secu-rity. We are conducting a full investigation.

Elevators are magic rooms. Doors close on one place and, supernaturally, open on another world. I've laughed, cried, sung, danced, kissed, in an elevator. I met my love in this same car. Lost my love here, too. Spent more time than I care to think staring at these stainless steel walls.

Yesterday, bleary-eyed from six hours writing my presentation, I stepped through those brushed chrome doors looking for fresh air and coffee. Tony and Emma (I learned their names later) were already inside, and when the doors closed we followed proper protocol: each of us took a wall and looked at anything but each other, waiting to be teleported.

Emma almost fell over when the elevator lurched to a stop. "These damned lifts," she said. Tony pushed the call button. No response. He pressed again. And again. And again.

The lights shut off; silence fell. It's hard to describe a silence like that. At any given moment a white noise, which our brains filter into what we call silence, surrounds us. This was different because there was no background noise to filter out. No drone of fluorescent lighting overhead, no hum of a motor nor distant whine of traffic or airplanes. The silence and the darkness were complete, like the world

Although political leadership, international aid, and economic growth have revitalized post-genocide Rwanda, much remains to be done. Destabilizing influences in neighboring countries are warning signals that the current peace should not be taken for granted.

As we departed, I was left with the scent of eucalyptus trees and the juxtaposition of magnificent natural beauty against a backdrop of sadness still etched in my memory. ☉

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had evanesced.

Then like a blink there was light again, a gray lambency that came from everywhere and nowhere. As though the air itself were phosphorescent. We searched for a source but found none.

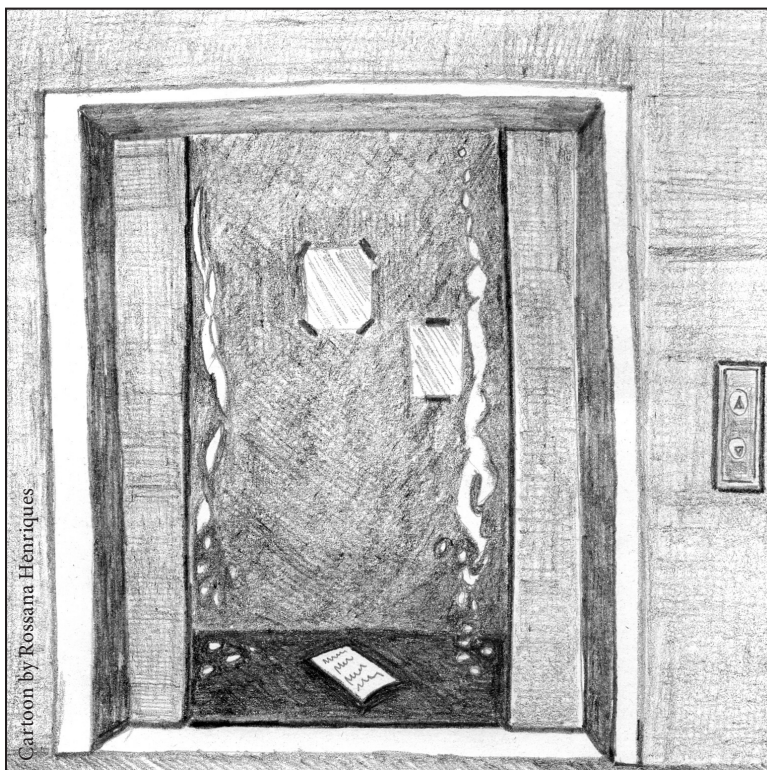
Tony bit a finger. "I normally don't ride," he said. He paced as the car seemed to grow smaller around him. "There must be an emergency hatch or something. Help me up."

Stepping on my laced fingers, he clambered onto my shoulders. Emma put her hands in the air as though she'd be able to catch him if he fell. He scratched above the drop ceiling that housed the fluorescent light box. "There's something," he said. "I can feel an edge, like a latch. I need to get higher." Tony was a small man, little more than five feet, weighed about a hundred pounds. Though I'm tall, I'd never lifted anyone onto my shoulders. It wasn't easy. "Yeah, I've almost got it," he said. My legs shook. "Little

more." He reached and in the grayness his arm vanished through a hole that wasn't there. Then, ever so briefly, he floated off my shoulders. I grabbed his ankles. Emma put her hands on my chest and I felt an illicit arousal.

"Shit," Tony said. I felt his full weight again before he jumped down, arms intact. "No door. Just some electrical panel."

"What do we do now?" Emma said.



Cartoon by Rossana Henriques



*This month Natural Selections interviews Haroun Sergilus, Housing Department, Front Desk Attendant.
Country of Origin: Haiti*

New York State of Mind

1. How long have you been living in New York? Almost twenty years.

2. Where do you live? In Brooklyn, close to Coney Island Avenue and Beverly Road.

3. Which is your favorite neighborhood? Fifth Avenue and Times Square at night, with the beautiful lights. The nice stores on Fifth Avenue and the romance of both places, all lit up, really represent New York to me. Also the restaurants in Soho and Tribeca.

4. What do you think is the most over-rated thing in the city? And underrated? Overrated: The subway system. I think there is so much room for improvement. Underrated: The number of restaurants and the fact that there's always something open, 24 hours a day.

5. What do you miss most when you are out of town? In New York there is always something going on and always something open, 24 hours a day. On my last trip to Europe I realized that I missed this; it was the first time I missed something from home while traveling.

6. If you could change one thing about NYC, what would that be? People's attitudes. Everyone is always so uptight, I wish everyone would loosen up a bit.

7. Describe a perfect weekend in NYC. My perfect weekend would involve getting some time off work! I would hang out with friends at a local pool hall and have a nice date in the evening: going out to a nice dinner and then to a club.

8. What is the most memorable experience you have had in NYC? A couple of years back, some friends visited from Spain. I did all the touristy things with them, including visiting the Statue of Liberty. Even though I've lived here almost all my life, I'd never been there before. I had a really great time.

9. If you could live anywhere else, where would that be? I would love to live in Spain or Italy. I visit there often and I love the people and the relaxed attitudes, as well as, of course, the food. In the afternoon there is siesta time, and everything shuts down. I feel really comfortable there.



10. Do you think of yourself as a New Yorker? Why? Not really, even though I've lived here all my life, since I was ten or eleven. I feel too laid back for the city. ☺

Tony paced. "There's got to be a way out." He pressed the call button again. "Why don't they answer?"

Emma put her hand on his arm. I suppressed jealousy. "Someone will come," she said.

How much faith she had! Her touch and her words were not soothing to Tony, though, whose scalp began to sweat, curly black hair like a wet sponge. Panting, he darted unfocused eyes. If he collapsed my only medical expertise was sacrificing mice to extract their livers. I tried to think of something calming to say but when I saw the powder I began to worry, too.

"What's that?" I said.

He slapped his neck like he was killing a mosquito and his hand was covered with a white powder. Panic flooded him. "Get it off," he said. I moved to one corner, Emma to another, both of us watching with fear and fascination. I covered my nose and mouth with my shirt and breathed slowly.

Powder clouded the air as he brushed frantically. Like a baker kneading dough, the more he rubbed the more the dust permeated. He slapped dust covered palms against the brushed steel door, cried for help, kicked. Finally, he drew a breath. The gray not-light blinked off. This stunned Tony to silence. An hour passed in a blink and just as quickly as it was dark it was light again and Tony was gone. I checked the car as though he could have slipped between cracks in the wall.

Emma shivered and as I reached out to her I saw her hands cov-

ered with the powder. It expanded up her arms, across her shoulders, like a new skin forming. Her eyes bulged and she held her breath. The white spread down her abdomen and over her thighs. She pounded white fists against the doors futilely. The white spread up her neck. She dug fingers into the seam between the doors and pried. "Help me, for God's sake," she said.

I squeezed into the corner, out of reach of the cloud, frozen. The white cocooned her face but I could still see her dark eyes through the milky film and her mouth open trying to scream but I couldn't hear anything except that silence, like snow falling on Christmas morning. Seconds later I was relieved when the lights blinked and she was gone. I didn't have to see her terrified face anymore.

Then I was alone.

I have stopped deluding myself into believing that the doors will open before I vanish, too. The powder still falls, fogs the car. It's gypsiferous, smooth, coarse-less; it coats me like fur. My skin is numb. I know I'm touching my arm but the knowing is by sight not by feel. Like my body isn't mine anymore. I've got my mouth covered because I don't want to breathe it in but I know that won't last. Shortly it'll envelop me the way it did Emma. I'm not scared. Curious more than anything. What happens after? I'm getting a little tired of waiting, really, tired of wondering. I'd like this experiment to end. I just want to know already.

Until then, I'll just keep banging on this wall. ☺

The Brooklyn Heights Synagogue Homeless Shelter: A Glimpse Inside

CARLY GELFOND

This past December, an article that ran in *The New York Times* had this to say: “According to the city’s daily homeless census, there were 6,975 single adults—4,934 men and 2,041 women—in shelters on Tuesday, Dec. 8, the most recent data available.” Not mentioned in the article is that, of those 2,041 single adult women, seven spent the night on cots in the multipurpose room on the lower level of the Brooklyn Heights Synagogue on Remsen Street, a picturesque block of historic brownstone row-houses in the heart of Brooklyn Heights.

I know because I was there, not as one of the seven, but as one of two volunteers assigned to work the overnight shift on that particular evening. So it was with particular interest that I read the *Times* article, which went on to discuss a shortage of beds at New York City’s homeless shelters due to a major uptick in demand in recent months, a phenomenon that city officials attribute to the economic downturn. Issues involving the homeless scatter the headlines these days as more and more people fall on hard times and providers of homeless services struggle to meet demand in the face of limited funding and manpower. Advocates of the homeless and city officials have been watching the strain on shelter capacity, in particular.

But on December 8, at the shelter in Brooklyn Heights, where our seven guests were bused in from a drop-in center and social services agency, we were lucky enough to be able to provide everything expected of us.

Widespread news coverage has kept many of us in the loop regarding the constantly-evolving situation of the homeless populations in New York City. But beyond the headlines are the personal stories—those of individuals served by organizations like the Brooklyn Heights shelter, and those of individuals serving there.

Working overnight at the shelter typically means arriving at 7 p.m., setting the table and assembling the prepared dinner the “cooking volunteers” have dropped off. Then everyone, volunteers and guests alike, sits down together and shares a meal. On the night of December 8, however, I arrived at 9:00 p.m., having been called in as the pinch-hitter to fill an unexpected last-minute opening in the volunteer schedule. I’d had longstanding dinner plans with a couple of friends from college who had wanted to take me out for my birthday, and the shelter coordinator said that my late arrival was okay, just so long as I could stay the night.

So at 8:45 p.m., I hailed a cab from the steps of a swanky restaurant in Chelsea (much swankier than I’m typically known for) to the basement steps of the Brooklyn Heights shelter, wiping my lipstick off as I hurried down the hallway. I entered the dining room and took a seat next to seven “chronically homeless” women and one other volunteer, all scraping the last of their lasagna from the edges of their plates.

Such are the ironies of the volunteer experience, the pinch-hitter’s or otherwise. You drop through a wormhole in your normal day-to-day life and are plopped down in an alternate world, inhabited by people of much different fortune. Or maybe that’s not quite right. Maybe it’s all the same world, but you’re flying down the freeway, the wind in your hair, when all of the sudden, without warning, the speed limit has changed. You jam on the brakes, slow way down. You look out the window and notice all you’ve been missing.

No matter how many times I volunteer, I always find myself jamming on the brakes.

A few weeks prior in early November I had volunteered on the first night that the shelter had opened for the season. Since a new

policy required that shelter guests return to the same shelter site each night—rather than be randomly distributed—on the night I arrived in December I recognized the faces I’d met on my previous visit. This didn’t mean that dinner conversation was easy. When I’d first begun to volunteer at the Synagogue, I quickly realized what a field of hidden landmines small talk with these women could be. Potentially volatile topics inevitably outnumber safe subject matter. Questions about where a guest lives, the line of work she’s in, the number of children she has and whether or not she is married invariably carry the possibility of an unfortunate back story lurking in the answer. I learned to steer clear of these (unless the women themselves chose to broach these topics) and to stick to well-traveled and inarguably less treacherous subject matter.

In the end, personal sagas do often come out. I see wallet-sized photos of grandchildren (many of them also in shelters) and one of a girlfriend living in another state. Some of the women have health problems, and some of these health problems have resulted in an inability to work at jobs that were never really stable in the first place.

On that evening in December, I cleaned up the dinner table with Kate, the other overnight volunteer—a graphic designer living in Greenpoint. There were leftovers, and we gathered with the guests to divvy up the remains to be taken for lunches the following day. We also offered to make some sandwiches and packed some fruit and extra yogurts we found in the fridge. We chatted while we divvied and packed. We talked peanut butter and jelly (creamy or crunchy? raspberry or grape?), and how much sweeter the fruit is in Argentina (I’ve never even seen a guava, much less tasted a bland one). The night was ending just as we were growing accustomed to one another.

Before I had arrived, Kate had set up the multi-purpose room with cots, blankets, pillows, and towels for the women. After loading the dishwasher, we set up our own cots in a nearby hallway. We got ready for bed in the bathrooms designated for our use, and in the other room nearby, the women got ready for bed, too. In the morning, before the bus was due to arrive at 6:15 a.m. to shuttle our guests back to the drop-in site, we would make them hot coffee and set out the lunches they’d packed the evening prior.

As we lay on our cots, Kate and I talked for awhile. I felt the ease of the conversation, an exchange that warranted very few special precautions. We talked about our jobs and the cities in which we grew up, and inevitably about our experiences there at the shelter.

Nights spent in an environment like this give rise to a strange brew of thoughts. Kate and I talked about our individual reactions to the experience. This was partly in the interest of exchanging ideas. But it was also a way for us to give voice to our own thoughts, and to thereby sort through them and make sense of them for ourselves. We talked about guilt. I told her that, as a volunteer, I try to resist this feeling, because it isn’t really fair and because I don’t believe that it ever really helps the situation. Instead, I try to summon a more positive emotion that in the end serves a greater purpose, a deep feeling of appreciation for all I have and all I am able to offer.

I like to think that as a volunteer, I am a small pulley in a system of cogs and wheels, gears and chains. It’s a system that can only function with sufficient reserves of beds and meals and dedicated individuals. As a volunteer, you do what you do because you see a societal need that you can help meet, even if you have to take your makeup off on the cab ride to meet it. ♦

The Scientist and the Artist in Society

BERNARD LANGS

These remarks are a totally subjective and purely opinionated take on how I believe modern Americans view the individuals who are in the performing arts, specifically popular music, and how they view those in the field of science. Disclosure: I work for a scientific institution and once played in a band.

I have also been reading some modern (or “post-modern”) philosophy on this subject which often points the finger in a metaphysical direction which I myself dare not attempt to tread. I’ve always been completely influenced by the last book I’ve read, and in this case the last one in question happens to have briefly touched upon the place of the scientist in culture and society. I am also completely influenced by my personal work situation and point as an example to my time employed by the New York Philharmonic where I immersed myself in classical music, only to retreat when joining the periphery of the scientific community (I am support staff at my current job).

The popular musician is performing for our society in the role of the class clown who has grown tiresome to his schoolmates with his antics and is, for the most part, largely ignored as having anything serious to contribute on any subject. In the 1960s and the 1970s, I believe that musicians and composers of popular music were active contributors to revolutionary and societal evolutionary forces in the realm of original thinking that spread virally through-

out the globe. Much of this was for the betterment of mankind. The sublime songs and careful production of The Beatles’ oeuvre comes to mind, as does the deep philosophical musings on David Bowie’s album *Heroes*. But the music sensations of those times also gave rise to a sycophant paparazzi climate that is fascinated by the ridiculous drug, alcohol, and sexual antics of musicians. It is now to the point where society anxiously awaits the salacious details of the fall of its next public figure (in any realm).

New ideas—that’s the rub. Fellow musicians were stimulated by the complexity of the music and poetry in the years I’ve mentioned. Culturally and politically, what had been long accepted as the idea of a state of continuous war came under question. Several doors of perception in the mind were opened wide to those curious enough to seek what was on the other side.

I recently heard a song where the tag line was “seven things I hate about you.” It sums up the current state of modern popular music. I was stunned to hear hate glorified in music in such a flippant manner. It was like the first time I saw explicit and unnecessary violence in film. “This is what they do now,” I thought. The song is sung by a young woman not yet 18 years old. Thus followed a slew of ugly breakup songs, and more videos of slithering young men and women who need the Auto-Tune software to sing on key (thanks MTV for killing the musically-gifted star).

How fares the scientist in this culture? The scientist may be the last bastion of mass societal respectability. Of course, the world is plagued by what has been termed “bad science” and each day the headlines boast news of the latest ridiculous study. But for the most part, the scientist has survived the bad news brought to so many professions from bankers to publishers. The shelf life of news of scientific study is fairly short compared to the hysteria that follows a sports figure’s disgrace, but at least science is taken very seriously in conservative news outlets such as *The New York Times*. My own feeling about scientists today is that they should be revered simply for guaranteeing, metaphorically, that the circuits they create will “turn on the light.” What appears to be almost wondrous and downright magic is based on hard facts, proven theories, a demanding and patient work ethic, and other redeeming human qualities.

The problem facing the scientist today is being caught up in research that serves trends that feed the continuous war mentioned above when it should be turning swords into medicines or even into a better toaster. The political climate too often directs the nature of the climate for scientific study, since one often can only work where the money flows to feed an unnecessary need of consumption and industrial production for its own sake (as explained in “the last book I read”). ☉

Science in the City

AILEEN MARSHALL

We live in New York City, the greatest city in the world. In this city of approximately ten million people, it is often said that one can find anything he/she could possibly want somewhere in the city. So what do we, of the Rockefeller University (RU) community, want? Among other things, it would be nice to go to some interesting events that involve science. There are several venues in the city that host periodic science events. The following are just a few.

The New York Academy of Sciences is always hosting myriad events. This month alone the titles range from The Genome Integrity Discussion Group, hosted by our own Titia de Lange, to What to Eat: Diet, Nutrition, and Food Politics—An Evening with Marion Nestle. They have seminars in all areas of science, policy and even career development. Their Science and the City program is a series of events geared toward the general public. They are located at 7 World Trade Center, but many of their seminars are held at various venues throughout the city. Members get in for free or at a reduced admission. For more information go to nyas.org.

The City University of New York (CUNY) has a program called Serving Science (the CUNY Science Café). They have monthly events at various restaurants around the city, meant to encourage scientific literacy. The events in the past have been about such topics as pollution in the city’s waters and advances in forensics. The spring series is not

yet posted as of this writing, but check <http://web.cuny.edu/research/Serving-Science-CUNY-Science-Cafe.html> for updates.

The Secret Science Club is based in Brooklyn. They hold monthly “science lecture, arts and performance series” at the Bell House bar in Brooklyn on topics ranging from global warming to the biology of aging. In January they had a NYU computer scientist talk about how computers can track human body movements. Check back with <http://secretscienceclub.blogspot.com> to see when the next event will be.

Of course, there is always the good old American Museum of Natural History. Located on the Upper West Side, at Central Park West and 79th Street, they have a SciCafe on the first Wednesday of every month. Last month’s event was the museum’s ichthyologist talking about her adventures on the Congo River. This month’s event is scheduled for February 3, entitled “Valentine’s Day 101.” There are always the museum’s usual lectures, guided tours and IMAX movies, in addition to shows in the Hayden Planetarium. Go to amnh.org for more information.

Meetup.com also has many science based groups. Yahoo and Google have online groups, too. These are just a sampling of the different science events around the city. If anyone knows of a fun science event they would like to see written up in this paper, please feel free to send them to us at naturalselections@rockefeller.edu. ☉

In Our Good Books

The reading suggestions have been kindly provided by staff members of the downtown bookstore McNally Jackson.

Star Maker by Olaf Stapledon

New rule: you haven't read science fiction until you've read Stapledon. His prose is a little dated feeling, but his imagination, his passion for inventing strange worlds and strange peoples page after page, is unrivaled even now. Stapledon nearly exhausted the genre before it got started, and he deserves to be read long after it fades away.

Light on Yoga by B.K.S. Iyengar

Books on yoga come, and books on yoga go. *Light on Yoga*, though, was published in 1966 and is here to stay. B.K.S. Iyengar's seminal and comprehensive guide, with its focus on precise postural alignment, is in a class of its own. If you were to own just one book on yoga, this should be it.

La Maison Du Chocolat By Gilles Marchal

O There is chocolate, and then there is CHOCOLATE. The famous Parisian chocolate shop, La Maison du Chocolat, produces the most divine dark CHOCOLATE as well as the most extraordinary sorbet. Now

Gilles Marchal, who has recently taken over the helm of this institution, has produced the CHOCOLATE cookbook. Not only will you learn how to make black and white cookies and divine chocolate mousse, you will learn how to make chocolate fettuccine and chocolate handbags. And, of course, the layout and the photographs are divine.

Diary of a Wombat by Jackie French

My husband, the Kiwi, taught me that kangaroos are dangerous because they can only hop in a straight line. So if you meet them on the road in the outback, they can do great damage to themselves and to your vehicle, which is why jeeps are protected by 'roo' bars. Koalas get drunk on eucalyptus leaves, so, if you're driving along the Gold Coast and you look upwards, you might see one in the wild, swaying in the trees. But no Australian animal is as hilariously lazy as a wombat. This diary of contented procrastination is a charm. And I had to go all the way to Sydney to discover it in a gift shop.

McNally Jackson independent bookstore is well worth a visit, they have a fantastic selection of books on their shelves. The store is located in NoLiTa at 52 Prince Street between Lafayette and Mulberry. Visit them on the Web at <http://mcnallyjackson.com>. ☺

Life on a Roll



Behind Bars by Adria LeBoeuf

