

Natural Selections

A NEWSLETTER OF THE ROCKEFELLER UNIVERSITY COMMUNITY

Tim Blanchfield, Rockefeller's Fitness Guru

SARAH BAKER

"Don't put anything off. Do it today. Don't wait." This is the advice that Timothy Blanchfield, the Fitness Manager of The Rockefeller University, has for the Rockefeller community. If you have been to Rockefeller's gym in Founders Hall, you have most likely run into Blanchfield. Since he was hired in the spring of 2014, it has been his main goal to keep Rockefeller fit—he manages the gym and its equipment, runs free fitness classes for the campus community, and is in charge of Rockefeller's participation in the Virgin Pulse Global Challenge every summer. I sat down with him at Rockefeller's Faculty and Student's Club to discuss his job and the path that led him to fitness.

Blanchfield grew up in Beacon, New York, about an hour north of New York City. When Blanchfield was living in Beacon, the Breakneck Ridge trail was not well known, but now it is a popular hike due to a challenging rock scramble and nearly vertical climb in the first mile, as well as its stunning views of the Hudson River and neighboring mountains. However, in those days, the Mount Beacon Railway was a popular tourist destination. This trolley followed the steep mountain face, had sweeping views of the valley, and led to a casino at the top called the Beaconcrest Hotel. In 1978, after several fires and financial issues, the railway closed.

In college, Blanchfield began doing some fitness training with his friends. He was completely self-taught, but he realized that he could help people get into shape at the gym. A few years later, Blanchfield joined Teach for America in the Bronx, where he was teaching for five years. Although he was teaching history, he also helped with some of the physical education programs and found that many people would come to him for fitness advice.

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EVAN DAVIS | NATURAL SELECTIONS

Blanchfield used his free time to begin personal training after school and when he left teaching, he was a full-time fitness trainer until Rockefeller hired him as part of Human Resources' initiative to increase the wellness offerings at Rockefeller. Now he works part-time for Rockefeller and manages his own personal training business on the side.

When Blanchfield first started at Rockefeller, many people did not know about his free fitness class offerings. In fact, initially, only people from Human Resources attended his classes, but this worked to get the ball rolling. Through word-of-mouth and increased advertising of the fitness classes, a diverse array of Rockefeller community members of all ages and fitness levels now attend his classes. Classes are always being added and adapted. One of the most popular classes is Blanchfield's strength and conditioning class on Mondays at 7:30 a.m. and Wednesdays and Fridays at 12 and 1 p.m.

Blanchfield also organizes Rockefeller's annual participation in The Virgin Pulse Global Challenge. There is space for 210 people (30 teams) to participate. Participants receive a fitness tracker at the beginning of the challenge to track their steps and other physical activity online for 100 days each summer. The program aims to improve physical activity, mental wellness, nutrition, and sleep; this contributes to improvement in all-around wellness of the participants. In addition, the Global Challenge provides both a sense of camaradery and competitiveness to campus as participants work harder to get in steps and climb the leaderboard, visible on the Virgin Pulse app.

Blanchfield says that he loves every part of his job. He finds satisfaction in helping people improve themselves and enjoys working at an institution like Rockefeller where there is a constant flux of students, postdoctoral fellows, research technicians, and other employees—there are always new people with whom he gets to work. To make the most of the limited space for equipment, Tim is continually working on replacing old machines and putting in new and improved equipment. He is excited about adding an upright rower to the gym soon. A cardio intervals class will also be added with a focus on high-intensity interval training. Blanch-

field's biggest pet peeve is when people do not return their weights to the rack after they finish using them. No one wants to spend half of their workout looking all over the gym for the weights they need!

Blanchfield's advice for anyone at Rockefeller who wants to get into fitness is to start slow and find something you can enjoy and can handle. It is okay to modify anything as needed. The biggest mistake people make when they decide to start working out is that they go too hard at first, especially if they are working out with a friend who has been working out for years. So ease into everything to avoid injury and fatigue. The goal is to find a way to include fitness in your lifestyle in a way that will be maintainable for you.

Motivation can be hard to find and to sustain. Even incredibly fit people like Blanchfield burn out sometimes. This past year, Blanchfield realized that this was happening to him. He had completed six full Ironman races in four years. (That's six long-distance triathlons where he swam 2.4 miles, biked 112 miles, and ran 26.2 miles!) Plus, he had done about ten half Ironman races in that same four-year period. So this past year he has been taking a bit of a break from intensive training and has allowed his proclivities for pizza to creep up on him. Everyone needs a break sometimes. However, Blanchfield is still very active—he discovered a love for mountain biking about three years ago, and now, he goes up to his condo on Hunter Mountain to ride his bike through the mountains almost every weekend. Not only is it fun and a beautiful place to bike, but this can also get him up to 90,000 steps for the Global Challenge.

Since Blanchfield's advice to us is not to put anything off, I asked him what is one thing he would do that he has not yet done. He has no plans to leave New York anytime soon, but eventually he does want to move somewhere more south or somewhere more west. Some options are North Carolina, Jackson Hole, or Park City—anywhere beautiful with plenty of places to go mountain biking. He says he's been in the city too long, but we are thankful he has been here because he is doing a wonderful job of helping members of the Rockefeller community lead happy and healthy lives.

A description of the Rockefeller University fitness center can be found [here](#) and you can check out the full fitness class schedule [here](#). ■

Natural Selections

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Natural Expressions

Digital

Bernie Langs of The Rockefeller University Development Office has released a new video, "The Boardwalk of Desire." Acting as director, composer, and musician, Langs uses Atlantic City as a backdrop over which he performs his song "Gin and Bitters Boardwalk." Check out this release on [YouTube](#).

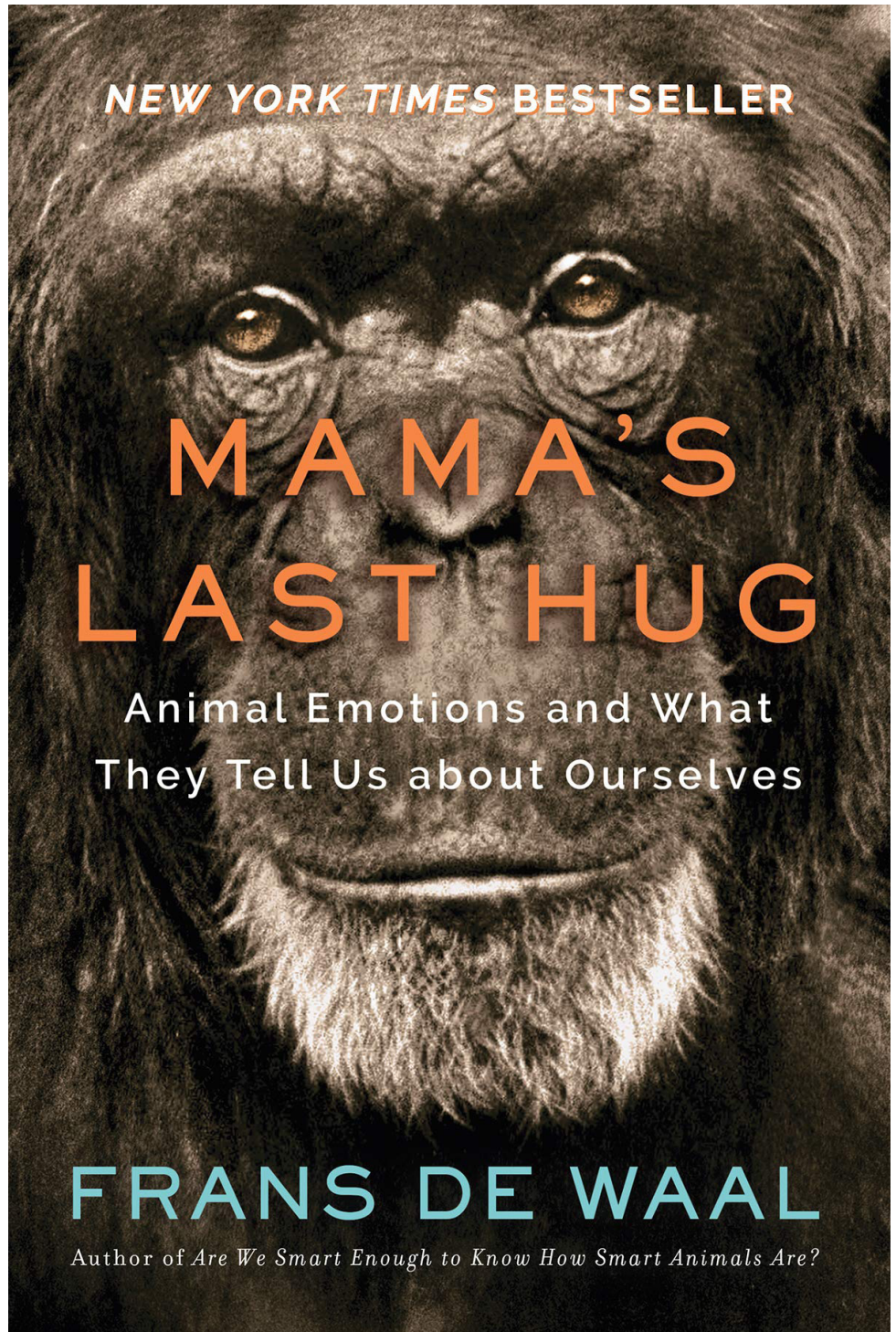
Email Megan E. Kelley at mkelley@rockefeller.edu to submit your art/music/performance/sporting/other event for next month's "Natural Expressions" and follow @NatSelections on Twitter for more events. ■

Review: Mama's Last Hug: Animal Emotions and What They Tell Us about Ourselves

YURIRIA VAZQUEZ

Can you imagine your human life without emotions? In other words, can you imagine yourself not feeling any joy, sadness, fear, anger, empathy, pleasure, or excitement? Most likely, our social world would vanish, and we might not survive since fear would no longer be elicited. Frans de Waal's most recent book, *Mama's Last Hug: Animal Emotions and What They Tell Us about Ourselves*, invites us to ponder the essential role of emotions in the lives of humans and other animals. The book challenges the notion that only humans are capable of having emotions and that it is not possible to study emotions in animals. The book is captivating, mind-changing, and a must-read for anyone interested in behavior, neuroscience, and social interactions.

De Waal is a well-known ethologist and zoologist. He is currently the C.H. Candler Professor of Primate Behavior in the Psychology Department of Emory University and a member of the United States National Academy of Sciences. De Waal begins by narrating an astonishing event involving a myriad of emotions expressed between a chimpanzee and a human. The event relates to a particular hug between a severely ill chimpanzee and a researcher. The chimp knew Jan van Hooff, the researcher, for forty years. Mama, the chimp, was motionless lying on her deathbed. When Jan entered the room, and Mama noticed Jan's presence, she embraced him and grinned. During the embrace, Mama's fingers patted Jan's head and neck. A pat is a movement chimps use to quiet whimpering infants. Mama was clearly happy about van Hooff's presence, and her patting indicated to Jan that she had no problem with him being in her territory. This event is astonishing. Normally, no one would dare to invade the territory of a chimpanzee because their outrageous strength can be deadly; the fact that Jan was able to do this denoted a deep social bond between Mama and Jan. It serves as evidence that chimps are capable of having and expressing emotions like happiness and gratitude. With this story, de Waal begins an exciting journey full of knowledge and reflections about what is known about human and animal emotions and whether it is plausible to study emotions in animals.



Over the course of the book, de Waal covers a lot of thematic ground, ranging from the expression of emotions through facial expressions and body language to different types of emotions, emotional intelligence, social signals, and conscious-

Frans de Waal
W.W. Norton and Company,
March 12, 2019
326 pages
Hardback, \$15.00

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ness in primates, birds, elephants, rodents, and fishes. The author's narrative style is fluid, fresh, and clear. The chapters pose challenging questions to the reader by narrating experiments and their results and de Waal proposes possible answers to these questions.

De Waal challenges even the most skeptical reader and his arguments favor the existence of emotions in animals, their neural basis, and their evolution. The author defines emotion as an internal state affecting different physiological responses, such as changes in heart rate, skin color, facial movements, voice, and tears. He supports the idea that the body influences emotions through hormones, hunger, sexual arousal, insomnia, and exhaustion.

These two arguments shape a definition of emotion based on a physical substrate. De Waal identifies an explicit difference between emotions and feelings: "Emotions are bodily and mental states that drive behavior. Only when the person experiencing these changes becomes aware of them do they become feelings, which are conscious experiences. We show our emotions, but we talk about our feelings."

By using Darwin's definition of evolution, "descent with modification," the author makes a case that since evolution rarely creates anything completely new, no human emotions are entirely new. This is a crucial argument to support emotions in other species, and poses an open question regarding the evolution of emotions and if they are shaped by species who depend on them for their social and survival needs.

All these arguments invite skeptical readers, like me, to think that emotions are measurable phenomena, and hence it is possible to study them in several animal species.

One of my favorite parts in this book was the section related to the expression of emotions. Here, the author does an amazing job of presenting evidence about how facial expressions in primates and body movements, such as tail movements in dogs or cats, provide a window into assessing internal emotional states. For example, we all know when a dog likes us and is excited about interacting with us. We just need to see how it moves its tail from side to side. We use similar reasoning to infer when a cat is angry. We just look at its fur and the shape of its body.

The book describes how Paul Ekman, an American psychologist and a pioneer in the study of the relationship between emotions and facial expressions, developed the Facial Action Coding System (FACS). FACS classifies facial expressions in humans based on facial muscle contractions. The book emphasizes that most of the time, emotions have ways to be expressed. To understand them, then, it is crucial to focus on the signals, the form they take, and their effect on others. De Waal himself conducted research to classify facial expressions in chimpanzees. Interestingly, he reports mixed facial expressions depending on the situation.

Other passages of the book relate to empathy. Here, de Waal describes several examples across different species, including rats, bonobos, and prairie voles. From all of the examples, one can conclude that indeed empathy is not exclusively human. In the case of prairie voles, which are tiny rodents, males and females form monogamous pair-bonds and raise their pups together. James Burkett, a scientist at Emory University, showed that if one mate is upset by anything, its partner is equally affected. This is true regardless of whether the partner is present during the stressful event.

Another mesmerizing experiment, involving bonobos, was developed by Brian Hare and Vanessa Woods. The experiment consisted of providing a bonobo with a whole pile of fruits, which he could eat by himself or share with another bonobo sitting behind a mesh door. The first thing many bonobos did was to open the door, and let the other bonobo enter. This action cost them half of their fruits. However, if there was nobody behind the door, they would eat all of the fruits immediately. This behavior provides strong evidence for empathy and pro-social behaviors. This kind of behavior is also seen in rats and elephants when they help their peers get out of dangerous situations. As de Waal puts it: "Social connectivity at its best [is] the glue of all animal and human societies, which guarantees supportive and comforting company."

As in real life, not everything is peaches and cream. Conflict resolutions, power signals, and social organization are also part of real life and of de Waal's book. The author focuses on social hierarchies in non-human primates and the differences between bonobo and chimpanzee societies. Crucially, bonobos are a female-ruled

society, while chimpanzees are male-ruled. Both societies are hierarchical, but have very different strategies to deal with social organization. While male chimps easily form coalitions, bonobo males are not very cooperative. Bonobo females form a kind of sisterhood, and they work together in response to male harassment. This is a sharp contrast to chimpanzee females, who endure abuse and infanticide. The book reveals that brain areas like the amygdala and anterior insula, which are involved in emotional processing and social behavior, are enlarged in the bonobo compared to the chimpanzee. Studies have also shown that bonobo brains contain more developed pathways to control aggressive impulses. All this evidence supports de Waal's point that emotions influence the way we relate to others, and thus our social lives.

One thing missing from the book is a graphical schema comparing the brains of different animals (primates, rats, birds), with the brain areas involved in emotional states. This would help readers to easily understand portions of the book involving brain structures like the amygdala, insula, hypothalamus, dopaminergic system, and so on. At some point, the author proposes to construct a taxonomy of emotions, in order to get a fingerprint of each emotion. The proposed taxonomy would be based on the areas and brain circuits involved in each emotional state. However, the author just flirts with the idea and does not develop it. This is a pity, since in recent decades, huge progress has been made in understanding circuits related to emotions like fear, aggression, mating, and romantic and maternal love, among others. A similar omission occurs when the author talks about patients with emotional impairments. Overall, the information is extremely limited in the book in terms of neurophysiological data supporting behavior.

Despite these shortcomings, I enjoyed and learned much by reading *Ma-ma's Last Hug*. The book is a masterpiece from an ethological point of view. It convinces the reader that animals have emotions and of the importance of studying them in ethologically relevant settings. I highly recommend this book to anyone interested in behavior, evolution, and neuroscience. It provides a huge amount of information but also leaves you thinking about the open questions in the research of emotions. ■

CAMP

Notes on Fashion



Photo Courtesy of The Metropolitan Museum of Art

Amuse Yourself | *A column about NYC museum exhibits to check out on a rainy weekend day.*
This month: The Metropolitan Museum of Art's Camp: Notes on Fashion.

SYDNEY TIEMANN

This year's Met Gala theme required plenty of explanation and is arguably the least readily definable: "camp." The annual themed fundraising event supports the Met's Costume Institute, which subsequently puts on a fashion exhibition considering that theme. These exhibits are wildly popular (last year's "Heavenly Bodies" garnered the most visitors the Museum has ever seen), and this year's iteration is no exception. I was accompanied on my Saturday afternoon visit by what felt like a thousand others through the narrow bubblegum-pink hallways of the show, each of us coming to our own definitions of what camp means in the context of couture fashion.

The exhibit begins with a history lesson in camp (this does not refer to summer camp or cabins in Maine—an easy misinterpretation). Each gallery defines camp in a distinct and evolving way as the exhibit moves through its history. The first room presents the origins of camp as a verb (*se camper* in French, meaning to strut about in an exaggerated or theatrical way), highlighting Louis XIV and his extravagant manner of dress. Camp is then presented as an adjective as a feature of subversive cross-dressing queer communities and its general capacity to play with masculine and feminine dress codes. We next learn about Oscar Wilde's camp (a noun) and Isherwood's camp (subsets of nouns) until we come to a gallery based on Susan Sontag's cornerstone essay, "Notes on Camp," and the inspiration for this year's theme. Thus far the exhibit is borderline didactic but helpful

nonetheless for us laypeople.

With all the exhibit's efforts to define camp, I found it increasingly difficult to do so, yet I was gaining a compounding and mutable picture of its story. This speaks to camp as an elastic and multifaceted concept—something that seems to cause discomfort, as evidenced by the initial confusion after the Gala theme was announced. When we find a notion difficult to encapsulate neatly in one concise satisfying term, we tend to simplify it or shy away from it in favor of black-and-white definitives (often stated confidently in less than 280 characters on a social media platform). What I loved about the camp exhibit is that it challenges that tendency, forcing us to engage with something we can't perfectly pinpoint. That, and the absurdly campy clothes.

The final gallery is a dim atrium displaying all manners of fanciful haute couture items in the camp aesthetic accompanied by quotes on camp. A ruffly periwinkle Viktor and Rolf ball gown fashioned completely upside down with the neckline at the wearer's ankles. A Jean Paul Gaultier top hat covered in human hair. Sparkly dresses with belts and creases painted on as a suggestion of functionality but having no function themselves. Tinsel and jewels and feathers and fur and hidden and obvious messages—this is admittedly what most of us came for. It's the most delightful dress-up box imaginable.

Sontag prefaces her seminal essay with the quip that "to talk about camp is... to betray it," yet here I was at the end of an

exhibit having been told what camp is from at least fifty different perspectives. I felt like by directly engaging with the idea of camp and observing its effects on the fashion world in such an obvious way, we were all betraying some kind of secret about it, thus missing the point entirely. But bringing a nuanced concept to a broader audience is certainly an important undertaking, and I'm glad the Costume Institute chose this theme at a time when we could all use a bit more nuance.

Catch the show before it closes September 8. When you leave, you likely won't have that satisfyingly definitive answer to what camp is, but you'll certainly have an expanded understanding and get to witness the fashion world's whimsical interpretations. If you miss it, consider these other upcoming NYC art exhibitions this fall:

Whitney Biennial 2019 (Whitney Museum of American Art, through Sept. 22)

Yayoi Kusama solo exhibition (David Zwirner gallery, November)

Nobody Promised You Tomorrow: Art 50 Years After Stonewall (The Brooklyn Museum, through Dec. 8)

She Persists: A Century of Women Artists in New York City 1919-2019 (Gracie Mansion, through Dec.)

Pierre Cardin Future Fashion (The Brooklyn Museum, through Jan. 5) ■



Smorgasburg

EVAN DAVIS

Smorgasburg is an outdoor food market that originated in Williamsburg, Brooklyn in 2011 and now takes place every Saturday and Sunday, in Williamsburg and Prospect Park, respectively. Originally an offshoot of the Brooklyn Flea, the founders created a food centric market due to limited space. Today over 100 vendors flock to Brooklyn every weekend to serve innovative foods to tourists from all over the world.■



Culture Corner

Television Review: *Rolling Thunder Revue: A Bob Dylan Story* and *Springsteen on Broadway*

BERNIE LANGS

If one believes that we're living in a golden age of television, that blessing comes with a bonus of a golden age of rock and roll documentaries. Recent superlative films airing on Netflix and other cable services include full-length features about Keith Richards, John Lennon, Eric Clapton, and George Harrison, with an emphasis on new interviews with the primary subject (unless deceased), as well as many musicians who retell their stories as witnesses to the life and era in question.

Two new documentaries have left me with an increased appreciation and respect for the featured artists. Martin Scorsese's film about the mid-1970s Rolling Thunder Revue tour of Bob Dylan is anchored throughout by a rare discussion with Dylan today. The second is the Netflix feature of Bruce Springsteen's Broadway show, which was a sell-out hit during its limited run. The contemporary Dylan interviewed by Martin Scorsese is insightful, intelligent, humorous, and energetic, defying his late 70s age at the time of filming. Springsteen appears bright, witty, and deeply introspective as he relates the story of his life and career without pause and with biting emotional intensity.

In *Springsteen on Broadway*, the artist undertakes a live performance of his recent autobiography, *Born to Run*. Springsteen strums a solo guitar or plays the piano while recollecting and diving deep into the key events of his life and successful years in the world of music. It is unlike any Broadway show I've ever seen, a unique journey of the heart and soul.

Springsteen has a physical appearance akin to a chiseled stone monument, a weathered journeyman who has risen to peaks of success and heights of uncompromising integrity. Yet the artist has been felled at times by his depressive inner demons, many stemming from decades of confusion about his relationship with his tough, emotionally-stunted, hard-drinking father. Springsteen's confessions are so raw, open, revealing, and, at times, brutal that I could only watch the documentary in short segments over several weeks. Springsteen's wife, Patti Scialfa, joins him onstage to perform at times during the show, a respite from the rough ride we've been witnessing.

Springsteen rolls through versions of many of his hits, including "Thunder Road," "Growin' Up," and "Born in the USA," and supplements the music with a wide range of

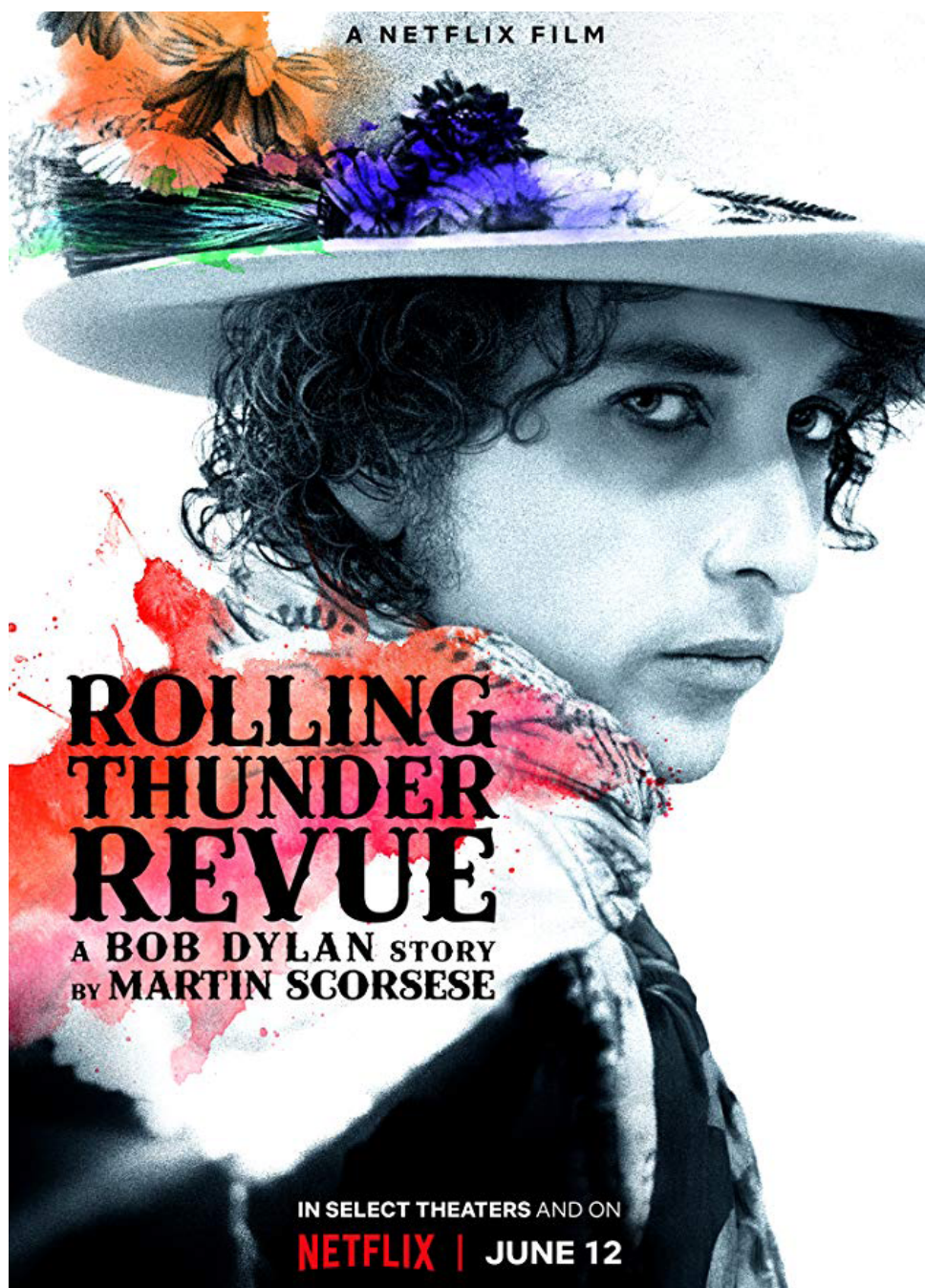


Photo Courtesy of Netflix

discussions. He speaks at length about how his long-time sax player and stage foil, the late Clarence Clemons, burst into his life and remained an overwhelming vital force throughout their many years together. The void created from Clemons's death has been a great one for Springsteen, one with which he continues to struggle.

As an artist, Springsteen has a unique mind and a sharp view of the America in which we live today. His autobiography, the basis of the Broadway show, is an exciting read and a vivid display of literary rock and roll reminiscing. During the show, the stories about his father include the tale of how he had

brought him to one concert to make his father see that his rock star son's entire stage and musical persona as a working class man dressed in factory attire was based not on his own experiences but is borrowed from his dad. This manipulation was used by Springsteen to make an artistic statement, which was the key to his success.

More than any top director of major artistic films, Martin Scorsese is a musician's filmmaker. He cut his teeth working on the *Woodstock* documentary and his early movies are peppered with well-placed rock and roll classics. His music documentaries include

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studies of George Harrison's life, *Living in the Material World*, and the final performance of The Band in *The Last Waltz*. His new feature, *Rolling Thunder Revue: A Bob Dylan Story* studies the artist's enigmatic mid-1970s wandering, troubadour-like tour, with its free spirit and great musical intensity. The new interviews with Dylan are focused and revealing, and one delights in the sing-song cadence of his spoken word. Dylan is the epitome of a vastly creative, genius poet well deserving of his Nobel Prize in Literature.

In one of Dylan's first scenes, he asks Scorsese to halt filming as he attempts to get a handle on recalling the tour that took place decades ago. He humorously claims not to remember one thing about Rolling Thunder Revue and notes, "I wasn't even born yet!," a notion that makes complete sense in that this Bob Dylan is absolutely *not* the man we see speaking and singing in the 1970s footage. In the same segment, Dylan notes that his life has been centered around the act of creating, nothing more and nothing less, a remarkably astute sentiment.

There were many great artists that bounced in and out of the line-up of Rolling Thunder Revue, including Roger McGuinn of The Byrds and the late Mick Ronson, the guitar virtuoso who helped propel David Bowie to fame. The footage of the legendary Ronson soloing with the band are a highlight of the movie. One interviewee claims that Ronson told him at the time he had no idea what Dylan thought of him and that Dylan had never spoken to him during the tour. Yet there is a moment captured in the movie when Dylan stands before Ronson, rocking back and forth in a bliss-like state as the guitarist riffs with powerful intensity.

My favorite moment in *Rolling Thunder* is when Joni Mitchell, who joined the performers late in the tour, is in a back room with Dylan and Roger McGuinn teaching them her newly-penned song "Coyote," which went on to become a classic (and which is also featured in Scorsese's *Last Waltz*). When Mitchell begins singing this fantastic tune, we once again understand her status as one of the most respected artists in popular music. It's a sublime moment in rock and roll history, captured on film in this one-time, unrehearsed, spur-of-the-moment performance with three legends.

The 1970s Dylan and the man we see on film today seems honest and genuine, nothing like the cunning, cultural manipulator described by the over-imaginative rock press through the years. He loves music and ap-



preciates his musicians and it is obvious he is enjoying the tour. Funny enough, Dylan also drives the entourage's large tour bus, the sight of which is oddly surreal. Perhaps he took the wheel because it offered the best and widest view of the scenery, a front seat vantage from which to take in America as they ride the open roads and swing into towns and cities.

Scorsese has chosen wisely from the many works performed during the Rolling Thunder Revue. We see some of the most moving songs by the artist from his mid-70s catalogue and hear several from his earlier days. There is a powerful version of "A Hard Rain's A-Gonna Fall," an emotionally meditative "One More Cup of Coffee (Valley Below)," and a searing rendition of "Isis." "Isis" was on Dylan's 1976 album, *Desire*. It is a power-packed story of love and the seeking of earthly

fortune. Dylan sings as a wide-eyed, energetic narrator with his face painted Kabuki white. It invites the listener to dream of cinematic action and adventure.

I believe that the present-day music industry has struggled to produce consistently high quality music on par with the excellence we are experiencing today in movies and television shows. But I'll take it as a win that I find such deep satisfaction from a new documentary about a Dylan tour from a long past era or by watching Springsteen onstage in a Broadway show expounding with deep emotionality the tales of his older catalogue as it relates to his personal life. I consider these two films a huge validation for the continued relevancy of rock and roll, the music that acts as the powerful soundtrack for so many lives, including my own. ■

The Reuben Sandwich

AILEEN MARSHALL

What do you get when you order a Reuben? It is a large, hunger-killing sandwich consisting of corned beef, sauerkraut, Russian dressing, and melted Swiss cheese, all grilled on buttered rye bread. While it can be considered an iconic New York City food, its origin is unclear. There are several different claims as to the inventor of this sandwich, none of which have ever really been proven. There are stories about it starting here in this city, while there are conflicting assertions that it was invented, surprisingly, in Omaha, Nebraska.

Most of the claims to a New York City origin are attributed to Arnold Reuben, a German immigrant who owned Reuben's Restaurant and Delicatessen, known for large sandwiches named after celebrities. In 1914, it was located on Broadway and 82nd Street. In Craig Claiborne's *New York Times* column in 1976, Reuben's daughter, Patricia Taylor, said that one night in 1914, an actress named Annette Selos, girlfriend of Charlie Chaplin, came in to her father's place and said that she was famished. Reuben made her a sandwich of ham, turkey, coleslaw, cheese and dressing on rye. She said it was the best sandwich she'd ever had. He named it the Reuben's special. However, this combination is not what is considered a Reuben sandwich.

Another story comes from a 1968 book, *Bull Cook and Authentic Historical Recipes and Practices*, by George Hertner. He wrote that the Reuben was invented by William Hammerly, a New York City accountant and amateur cook. Hammerly named it after Arnold Reuben because of his well-known charity works.

One more claim to the inventor of the sandwich comes from Reuben's son, Arnold Reuben Jr. In an interview with the *St. Petersburg Times* in 1993, he gives credit to a chef at the restaurant during the 1930s, Alfred Scheuing. Reuben said that he would work in his father's restaurant many late nights and would grab a burger to eat. One day Scheuing said he was sick of seeing the boy eat so many burgers. He said he had "some nice fresh corned beef." He put some on rye bread,



Reuben on rye at Katz's Deli.

added fresh sauerkraut, Russian dressing, and Swiss cheese, and grilled it for him. Other than these interviews, the only other substantiation to these claims is the fact that Reuben's menus from these times list both a Reuben's Special, the ham and turkey version, and a Reuben sandwich, the traditional corned beef version.

The other claim to the invention of the Reuben comes, unexpectedly, from Omaha, Nebraska. In the 1920s there were a group of men who would meet for a weekly poker game in a room at the Blackstone Hotel. The lore goes that they liked to make their own sandwiches during the game. One of the men was grocer Reuben Kulakofsky. His family has claimed over the years that he made up this sandwich from a platter sent up to the room by the hotel. There is a competing story about the hotel chef, Charles Schimmel. His granddaughter, Elizabeth Weil, wrote to the *New York Times* that Schimmel invented the sandwich specifically for Kulakofsky. That's why he named it after him. Schimmel subsequently put it on the hotel menu. A 1934 menu from the Blackstone does list the Reuben sandwich. Note that a Reuben sandwich is grilled. It's not clear if there was a grill in the hotel room where the men played poker.

Another Omaha tie comes from

1956. Fern Snyder was a chef at the Rose Bowl Hotel in Omaha. The National Restaurant Association had a contest that year for the best hotel and restaurant sandwich. Snyder's entry of a recipe for a Reuben sandwich won the contest.

Wherever it comes from, this meal-sized sandwich is relatively easy to make at home. Just butter one side of a slice of rye bread, then put it in a hot pan or grill. On top of the bread place several slices of corned beef. On top of the beef put some drained sauerkraut. Over the sauerkraut, pour some Russian dressing. Top it all off with a slice of Swiss cheese. Butter one side of another slice of rye bread, place it on top of the sandwich, butter side facing out. Press the sandwich together, and continue to grill and press, flipping occasionally, until the cheese had melted and the bread is golden and crispy on the outside.

There are many restaurants in this city that offer a Reuben sandwich. One place close to our university is Ess-a-bagel on Third Avenue near 51st Street. The Brooklyn Diner on 43rd Street and Seventh Avenue also offers a Reuben. And there is the famous Katz's Deli, on Houston Street near First Street. Of course, many diners have Reubens on their menu. While not the healthiest choice for a meal, it is savory, satisfying, and delicious. ■



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Pets of Tri-I

POOJA VISWANATHAN

For this issue, I interview **Michelle**, the dog who lives with Emma Garst (Hang Lab, The Rockefeller University). I love animals, please write me at pviswanath@mail.rockefeller.edu if you have pets! That's the whole point of this.

Pooja Viswanathan: How old are you? In human years?

Michelle: I'm going on four years old! I guess I should be settling down, but I think maturity is overrated. I am still "young at heart," as my mom likes to say.

PV: Is there a story behind your name?

M: The foster agency gave it to me, and mom kept it because she thought it was funny! You can take it up with her. We get asked sometimes if I was named after First Lady Michelle Obama. For the record: no. Who would dare.

PV: What is your first memory?

M: I have some early memories, but the most exciting one was when I took a long road trip up from Pittsburgh to meet my new mom! I was driven by a couple of volunteers, so I got to meet a lot of new people. I love new people.

PV: Where do you live?

M: I live in Faculty House with my mom and our roommates, Fangyu Liu and Mizuho Horioka. I like to play a fun game with Fangyu, where I make funny noises and she makes funny noises back. We have a good time. (*Editor's note: this is not a fun game for Fangyu.)

PV: What are your favorite smells of NYC?

M: Oh boy, I love trash day. New York has so many interesting smells, I couldn't name just one! There's old chicken, and fresh pee, and Thai take out, and bird droppings...

PV: If you could live anywhere else in the world, where would you live?

M: I love New York but I would love to run more! I'd like to live somewhere off in the mountains, where my mom wouldn't worry about me running off to explore every once and a while.

PV: What are your favorite foods?

M: I'll try any food once, but it's got to be chicken. I love when we get rotisserie chicken and I get the little fatty salty skin bits.



EMMA GARST | NATURAL SELECTIONS

MMMMmm.

PV: What is your favorite weekend activity in NYC?

M: I like taking mom up to Randall's Island! There's plenty to sniff and explore up there. There are squirrels, and we also get to walk past lots of dogs on the way. I find other dogs confusing... but very interesting.

PV: Besides your human roomie, who is your favorite human in the Tri-I community?

M: I have to pass on this question, I don't want to play favorites with my fans.

PV: Do you have a funny story to share with us?

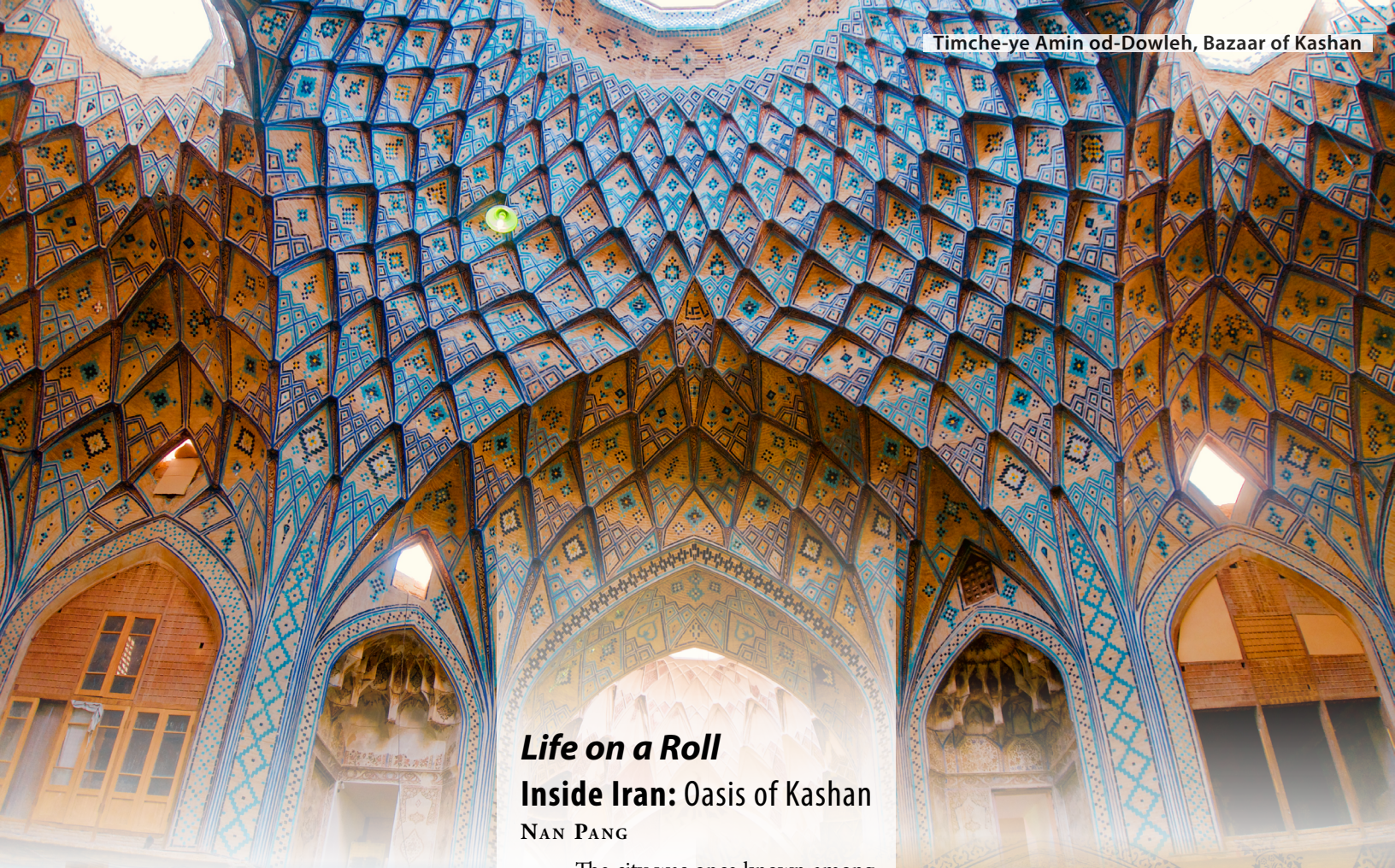
M: One time I almost got that rabbit on the Rockefeller campus! I even got away from my mom, but I couldn't find it once it got in the bushes. Actually, it is an exciting but sad story, not funny. I would like to chase the rabbit again someday.

PV: Is there some way we can see more pictures of you on the interwebs?

M: My mom basically only posts pictures of me (for obvious reasons). You can follow her Instagram [@egarst](https://www.instagram.com/egarst).

PV: If you could have any human ability, what would it be?

M: Opening doors. Just imagine, I could take myself out on walks all the time! ■



Life on a Roll

Inside Iran: Oasis of Kashan

NAN PANG

The city was once known among merchants as a prosperous oasis along the Silk Road. Nowadays, Kashan is better known for its production of fine rose water. Located between Tehran and Esfahan, the city is often overlooked by most travelers, but the magnificent architecture of Timche-ye Amin od-Dowleh in the bazaar itself is worth a trip. It is also fascinating to get a flavor of affluent carpet merchants lifestyles through the opulent Tabātabāei House and Sultan Amir Ahmad Bathhouse. ■



Tabātabāei House



Sultan Amir Ahmad Bathhouse



Agha Bozorg Mosque

New Member Guide to Campus

We welcome all of the new members of our community to The Rockefeller University! Here are resources you may find of interest:

Markus Library

Located in Welch Hall (enter the Founder's Hall lobby and walk down the stairs), the library provides resources for scientific research at the university. In addition to providing access to scientific articles, the library has public computers, meeting spaces, a lounge with current magazines and newspapers, and Kindles loaded with popular books that are available for checkout.

Classifieds

Classifieds are posted by members of the community looking for scientific items, selling items, searching for housing, or submitting announcements. You can subscribe to receive RU classifieds alerts here: <https://inside.rockefeller.edu/classifieds/>.

The Faculty and Students Club

Located on the B level of Abby Aldrich Rockefeller Hall and open from 4-11 p.m. Monday through Friday, the Faculty and Students Club is a place for social interaction, thesis celebrations, barbecues, parties, and meetings. The club provides discounted drinks to members of the Rockefeller community who have an account. To set-up an account, contact Human Resources.

Resource Centers

Rockefeller has many collaborative resources centers with specialized equipment and expertise. Find the complete list here: <http://inside.rockefeller.edu/rc/>.

Information Technology

IT maintains a safe and secure campus technology network and aids in technical support for computer issues. Their website can be found here: <http://it.rockefeller.edu/>.

Occupational Health Services

Located in Room 118 of the Hospital Building, OHS provides free health care services to Rockefeller employees covering physical, mental, and emotional wellness. Services provided can be found here: <http://inside.rockefeller.edu/hr/occupationalHealthServices>.

Office of Sponsored Programs Administration

OSPA aids with the compilation of research grants in compliance with the correct policies

and regulations, the identification of available funding, and any issues with obtaining funding (<http://www2.rockefeller.edu/sr-pd/homepage.php>).

Athletic Facilities

There is a tennis court, squash court, and gym on campus. To access the gym (6th floor of Founder's Hall), you must sign a waiver at the security desk in Founder's Hall. The tennis and squash court must be reserved at https://appintpl.rockefeller.edu/tennis/t_logins and https://appintpl.rockefeller.edu/squash/s_logins.

People at Rockefeller Identifying as Sexual/Gender Minorities

PRISM fosters a community of support for LG-BTQ+ individuals at Rockefeller. PRISM co-hosts Friday breakfasts with seminar speakers, organizes talks and social events, and provides resources for the Rockefeller community. Find out more here: <http://ruprism.org/>.

Women in Science at Rockefeller

WISer is a professional development and advocacy group for women scientists at Rockefeller. WISer co-hosts Friday breakfasts with PRISM, organizes lectures, outreach and a mentorship programme. Check out their activities and resources here: <https://www.wiser-atrockefeller.com/> and sign up to join.

Science Education and Policy Association

SEPA gives scientists the ability to be engaged in policy-making and see how scientists affect policy and policy affects science. SEPA provides training, hosts career panels, and allows for engagement with policy at local and national levels. Check out the website here: <https://sepanyc.org/>.

Rockefeller Inclusive Science Initiative

RISI is a student-run group that serves as a support system for Underrepresented Minorities on campus. RISI organizes seminars, mentoring programs, and training. Follow RISI on Twitter here: <https://twitter.com/rurisi?lang=en>.

Science Communication and Media Group

The SCM team (<http://scicommandmedia.rockefeller.edu/>) is comprised of a group of students and postdocs who bring interesting lectures and film screenings to campus throughout the year. If you are interested in bridging the gap between scientists and the

public, you can consider joining the SCM group by emailing scienceandmedia@rockefeller.edu.

Postdoc Association

The PDA provides social and career development resources for postdocs and research associates at Rockefeller. In addition, the PDA holds a retreat every year, communicates with the administration about the needs of the group, and hosts seminar series and social events throughout the year. You can learn more here: <http://pda.rockefeller.edu/>.

RockEdu Science Outreach

RockEdu is Rockefeller's outreach initiative aimed at students K-12 in the New York City community to foster awareness of science and hands on lab experiences. If you are interested in volunteering through RockEdu, you can sign up here: <https://www.rockefeller.edu/outreach/volunteers/>.

Tri-I Biotech Club

The Tri-I Biotech Club is for members with a shared interest in biotechnology. Find out more here: <https://wcbiotechclub.org/>.

Tri-I Consulting Club

The Tri-I Consulting Club is for members with a shared interest in consulting. Find out more here: <https://triiconsulting.wordpress.com/>.

Art Studio

There is an art studio available on campus for community use. If interested, contact Zachary Mirman (zmirman@rockefeller.edu).

Weill Cornell Music and Medicine

The Weill Cornell Music and Medicine group fosters balance between medical and musical interests of the Tri-I community. For more info, go here: <https://music.weill.cornell.edu/recruitment>. Also, of note, there are 2 music rooms on campus in Scholars and the Abby. Contact the Founder's Hall security desk for access.

Bronk Fund

The Bronk Fund is available to students in their first through fifth years on campus. Students can be reimbursed half of receipts for fitness activities, language/art class, or theater/concert/sporting events, up to \$125 total per year. The fund also provides a lottery of free tickets to students for various events throughout the year. ■