

## LECTURES DO WORK

TOBY STEIN (CE '19)

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Monica Chen (ME '18)

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Daniel Galperin (ChE '18)

Robert Godkin (ChE '18)

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Hossam Saleh (ChE '18)

Brenda So (EE 18)

Toby Stein (CE '18)

Kavya Udupa (BSE '19)

Arnold Wey (EE '18)

This article was written in response to the Matthew Grattan's previous article 'Lectures Do Not Work'. It focused on Professor Alan Wolf's Physics 112 Mechanics lecture as a case study.

Of late, lecture teaching has received a lot of criticism. Ubiquitous at most higher level institutions, university education is growingly dominated by large lectures that introduce students to material by ushering them into large lecture halls and having a professor speak for 50+ minutes. Although this is by far the most common method in universities, it is time that people ask themselves: does lecture style teaching work?

Although larger lectures at Cooper are few and far between, they exist, and every Cooper student attends at least one before walking across the stage in the Great Hall. During their sophomore year, all Cooper students sit through an HSS-3 lecture, however, this piece concerns itself with only one of the three physics lectures that all engineering students endure. More specifically, this piece focuses on PH-112 Mechanics as a basis for discussion.

Depending on how you look at it, Alan Wolf is a very lucky man, or a very unlucky one. He is one of the only professors to, almost guaranteeably, teach every single engineer to walk through Cooper Union's doors; and it has been that way for the past 30+ years. He teaches the first two installments of Physics at Cooper [Mechanics – PH112 and Electromagnetism – PH213], and has long looked to increase the efficiency of his lecture setting. He has taught a large phys-

ics lecture at Cooper for longer than most students here have been alive, and to him, David Hestenes and alternatives to lecture are nothing new. Hestenes' work, which was discussed in Grattan's earlier article, proposes a new style of learning, one driven by active teaching. Here, students are more engaged in their learning through cooperative assignments and interactive classes. Placing a focus on the quantifiable effect of his study, Hestenes' proposed system decreased the student failure rates by 55%.

"Although this is by far the most common method in universities, it is time people ask themselves: does lecture-style teaching work?"

Professor Wolf, who has been following Hestenes' work for decades, was not hesitant to conduct a test developed by Heste'nes and two associates to test his own teaching methods. Professor Wolf explained that he was curious to investigate the effectiveness of physics lecture, as well as the effectiveness of his teaching as a whole with some type of test. To do so, he administers a test, the "Force Concept Inventory" test every five or so years, which looks to give him an introspective look into the performance of his lecturing style. This multiple-choice test was designed to test a student's mastery of mechanics concepts before and after a semester's

worth of physics education. Hestenes' published result demonstrates that nationwide, the test reported a 13% increase in score. On average, students would score a 50% as a baseline, and after completing a semester of physics education; they would score a 63%. Comparatively, Cooper students came in scoring an average of 68% on the exam, and after a semester in Professor Wolf's mechanics lecture scored an 86%. Pundits could argue that the 13% increase and the 18% increase lack enough distance to be significant, however, the study also published a statistic referred to as Normalized Gain, which attempted to standardize all exam scores against each other. Accepting that it's harder to increase the score the closer you get to a perfect score, the normalized gain attempted to compare effectiveness on a standardized scale. Cooper's scores correlated to a normalized gain score of .56, compared to the nationwide average of .23.

This means that Mechanics PH-112 class was not more effective than the national average by 5%, moreover, by 250%. And frankly, Professor Wolf argues that that alone should convince you. Professor Wolf admitted to not having given a similar exam to test the effect of E&M lecture, but has looked into the prospect of it.

As an engineer who has taken ChemLab, I realize that this one point of data should not prove everything. We cannot take our goggles off and hang up our lab coats; in fact, this is where we should put our goggles back on, because anyone can argue the inefficiency of lecture just as much as I can argue its effectiveness. Consider this, do you think that this 250% improvement over the national average is a fair enough trade for the other costs of lecture teaching? Admittedly, this is just a singular point of data, and although it overwhelmingly suggests that Professor Wolf's Mechanics lecture works, does that justify multiple-choice tests and a bell curve designed to fail students? You can still come up to me and argue that Cooper students should not be tested on a scale that tests the national average, nor should we compare ourselves to the national average, as we are certainly not the average, and in fairness you are correct. Ultimately, what you take from this article is your call not mine, but I certainly urge you to weigh the benefits of Professor Wolf's uncompromising style against the negative aspects of lecture. In this thought experiment, try to set aside any personal discontent since after all, in ChemLab you must always zero the scale.◊



Photo by Brendan Fernes (EE '18)

# WALL STREET JOURNAL REPORTS ON COOPER'S "WOUNDS"

DANIEL GALPERIN (ChE '18)

On January 8, 2016, the Wall Street Journal (WSJ) simultaneously published 2 articles related to the Cooper Union. During what appeared to be a period of relative tranquility as the Presidential Search Committee (PSC) of the Board of Trustees carries out the vital duty of finding a new president, WSJ journalist Mike Vilensky published an article titled "Cooper Union's Search for New President Reopens Old Wounds". While this article relates to a "New President", the other article published by Vilensky is about Jamshed Bharucha, the former President, and is discussed here later in this article.

Nearly 2 months ago, the PSC, with the help of a hired executive search consultant Korn Ferry, published a position specification for the job of President of The Cooper Union. The document discusses the importance of the duties of the president in an administrative role, but fails to mention the circumstances that Cooper faces. This is a cause for concern to some, as there is a belief that candidates for the position should go in knowing the extent of the challenges they will encounter and that tuition should be the focus of the presidents' role. Jessica Marshall (EE '17), Student Trustee and a member of the PSC, responded to this perception by explaining "when Korn Ferry approaches potential candidates or referrals, they make sure that the individual in question is aware of the current situation at Cooper."

The first article describes a perceived internal disagreement among members of the Coo-

per Union community about what should be required of our next president. The "dispute", as Vilensky calls it, is that a portion of the community believes returning to a tuition-free model should be the priority of the next president, while others believe that though removing tuition is an important goal, there are many other important orders of business that the next president should focus on.

In several places, the article quotes Johnny Taylor, one of two co-chairs of the PSC. One of the more surprising and unorthodox quotes comes at the very end of the article in reference to the ability of the PSC to identify the ideal candidate for the job: "Everyone asked the Supreme Court to define what pornography is, and they were like: 'You know it when you see it.'" Vilensky may have taken this quote out of its original context, but as it appears in the article on its own, it raised many eyebrows among faculty, alumni and students.

The other article published that day was titled "Former Cooper Union President Defends Tuition Decision". This article appears to be auxiliary to the aforementioned article. It is a discussion of the terms under which the former president Jamshed Bharucha resigned. Referencing a post on Bharucha's own website from October 2015, Vilensky quotes Bharucha criticizing a report that details misdeeds during his time in office from the perspective of the Attorney General (AG). Vilensky quotes Bharucha claiming the report would not hold up to a stringent

review. It also quotes Bharucha upholding his own actions as president of the institution and notes that Bharucha "said in an interview last month that he wouldn't have handled matters differently" given the AG's findings.

"When Korn Ferry approaches potential candidates, they make sure that the individual in question is aware of the current situation at Cooper."

- Jessica Marshall, Student Trustee

Vilensky's articles certainly give the impression that Cooper has made little progress since the resolution of the lawsuit and AG investigation, which among their many outcomes yielded the ouster of Bharucha and mandated the Presidential Search Committee with Alumni, Faculty and Student representation. On campus, however, it is clear that significant structural changes to Cooper's governance are helping to rebuild community trust. It is important to read articles such as those mentioned above with a careful eye, and consider all of the good that has come from recent changes as well as the potential for progress that stands to be achieved.  $\Diamond$ 

# FRESHMEN ATTEND MANDATORY CONSENT WORKSHOP

MARY DWYER (ChE '19) | KAVYA UDUPA (BSE '19)

On Tuesday, January 26, the entire freshman class filed into the Great Hall, scanning their IDs at the entrance to ensure mandatory attendance, to spend their first club hours of the semester talking about sex. But not just sex: talking about the social and personal significance of sex, stressing the importance of communication and consent. As we entered the hall, our surroundings set the tone for what we would have to overcome. Not only was it a battle to emotionally transcend the barriers that make it difficult for us to naturally discuss sex, but also most of us sat in the back rows behind the giant, obstructing pillars of the Great Hall-making it physically impossible for us to participate in the conversation. We were encouraged to move forward, and a few students did—the school's three majors painstakingly apparent as we chose our seats.

Dean of Students, Chris Chamberlin, and Title IX Coordinator, Mitchell Lipton, introduced us to the event, and briefly described Cooper's Title IX policy, the school's policy against "discrimination, harassment, sexual assault, domestic violence, dating violence, sexual exploitation, and stalking." The policy can be easily accessed and read in full on Cooper Union's website.

After their introduction, a person from the Anti-Oppression Resource and Training Alliance (AORTA), a collective of educators devoted to strengthening movements for social justice, took hold of the mic and shared the list of promises we made once entering the room, all of them having the common thread of respect. The presenter introduced themself as a person, and encouraged us not to make presumptions about gender as we began our discussion. As the workshop progressed, we learned that any presumption we made going forward was wrong—morally wrong—and we

owe it to others to listen and learn about them, their comforts, and their consent.

This is notably the first consent workshop that Cooper Union mandated an entire class attend. In the future there will be an annual workshop that will take place during freshman orientation. When asked why the school did not require the workshop for all classes, Dean Chamberlin commented, "This was the first mandatory workshop we put on and we wanted to be sure that it was of a scale that was manageable." He continued to credit the decision to "current laws [that] have requirements for training and workshops specifically geared towards new students." In addition to educating the student body, Dean Lipton maintains, "We are offering four daytime faculty Title IX training sessions throughout February and March and plan to add a fifth evening training session to educate as many faculty members and key staff as possible on laws and responsibilities that relate to Title IX, 'The Violence Against Women Act' and 'Enough is Enough' laws." He plans to record at least one of the sessions as a reference and educational tool to better train and educate the Cooper community.

The entire workshop revolved around education: spreading knowledge of the laws and practices of our school and humanity. If we seek to be better educated on those with whom we share personal, social, sexual relationships, we can be more certain that our actions are wanted and the actions of our partners are consensual.

The facilitator of the workshop tried to establish the idea of how uncomfortable giving/not giving consent is for both parties through a series of activities, the first of which was asking for permission to shake an individual's hand. The activity

was supposed to simulate the act of asking for and rejecting consent during sex. Some students were able to see the correlation between the two as they felt uncomfortable both when asking for permission to shake their partner's hand and when they were rejecting their partner. Others felt that asking permission to shake an individual's hand is not a sufficient comparison to asking permission for consent. Some other activities included simulating situations at parties or with friends in which someone would have to give consent and then explain why they gave a certain answer.

"1 in 5 women and 1 in 16 men are sexually assaulted while in college, and 90% of sexual assault victims on college campuses do not report the assault."

- The National Sexual Violence Resource Center

Throughout the two-hour discussion, students expressed that the idea of asking for and giving consent is "common sense," and that this workshop was unnecessary for that reason. That notion sparked the obvious retort that rape exists. Sexual assault is a societal omnipresence, especially on college campuses. The facilitator reminded us that "by the age of eighteen, one in four women are sexually assaulted." The National Sexual Violence Resource Center also reports that 1 in 5 women and 1 in 16 men are sexually assaulted while in college, and 90% of sexual assault victims on college campuses do not report the assault.

Students also brought up the idea that consent to do certain activities should be

given before actually having sex with one's partner as asking for consent "ruins the mood." Such an idea is incorrect because this assumes that the person's opinions towards having sex haven't changed since the beginning of the relationship. It also introduces another important concept discussed in the workshop: how the phrasing of the question and the environment in which permission is asked can influence a person's response. As seen in the shaking hands activity, it is a lot harder for someone to say 'no' than 'yes' and not asking permission multiple times throughout the relationship can result in someone feeling coerced into having sex.

Sexual assault continues to be a growing problem in today's society. The National Sexual Violence Resource Center reports that for eight in ten cases of rape, the victim knew the perpetrator personally. This is why asking for consent is so important—a person should be able to freely say whether they are comfortable or not with the idea of having sex and should be able to say so at any stage in the relationship. They should not feel forced into anything and, ultimately, should not feel guilty for saying no.

The end of the workshop was decided by half of the audience standing up and walking out promptly at 1:50, while one of our peers was mid-sentence, sharing his stories and opinions. Some students chose not to accept an education that day, which permeated through their actions and discussion. Some students listened, and learned how to better their existing relationships. Some student taught, shared their experiences and stories. The effectiveness of the workshop depends on both the facilitator and the students; the facilitator needs to lead us, but we have to be willing to accept where they are going. ◊

#### $Below\ are\ two\ opinions\ about\ the\ mandatory\ workshop\ and\ the\ topic\ of\ consent\ in\ general,\ shared\ by\ staff\ writers\ of\ The\ Pioneer.$

The object of the workshop would have been better achieved through poignancy. Some of the commentary during the workshop evinced that students were frustrated by the mandate, thereby entering the Great Hall with a closed mind. It is difficult to present to an audience that does not want to be there, and the format of the presentation did not serve a skeptical audience. I have a lot of respect for the purpose of the workshop, and I am proud of our school for taking steps to create a more comfortable environment for our students. However, because the information was presented in a disjointed discussion, the skeptics were able to leave the auditorium unaffected. Had a presenter shared a compelling narrative, forced us to move closer to the stage, put us in a situation in which we had to listen to what was said, more students would have heard the message.

When I was in seventh grade, the 500 plus students at my school were squeezed into the gym for a mandatory assembly on bullying. A man stood in the center of the dark, congested, atrium and told us his son's story. His son was Ryan, a fourteen-year-old boy who committed suicide after relentless bullying. A few students were saved by Ryan's Story, a majority of us were moved to tears, and every single one of us left reflecting on our lives, asking ourselves how we can improve our treatment of others.

- Mary Dwyer

The workshop was unable to leave a lasting impact on the entire student body. Though it had a very strong platform, the workshop could not engage all of the students as the audience was simply too large for a presentation that was meant to be an intimate discussion. The activities did stimulate conversation, but only in small areas of the auditorium and a significant portion of the student body did not take the activities seriously as there was no direct connection between them and the presenter. And more importantly, the presenter was not able to convey just how serious and prevalent such a workshop is to our lives.

Though it was established that the auditorium was a judgment-free zone, many students did not speak up and the discussion was led by only a small group of people. The conversation (or lack of conversation) proved that this workshop should be mandatory for all years, every year. Various students did not understand the gravity of the idea of giving consent and it was quite difficult to facilitate a steady discussion amongst the entire student body. But, for those students who were able to fully participate in the discussion, the workshop cemented the idea of how important getting consent is and showed that the simple action of getting permission to continue can make the entire process more enjoyable for both parties because after all, "consent is sexy."

- Kavya Udupa

## INTERVARSITY PRESENTS: COFFEEHOUSE

OLIVIA (HEUIYOUNG) PARK (BSE '19)





Photos by Andrew Tallaksen (ChE '15) and Charis Jackson (ChE '16).

The sweet aroma and comforting warmth of coffee and tea. The inexplicably mouthwatering scent of freshly baked goods. Scattered yet intimate chatters and laughter. On January 29, Intervarsity welcomed everyone to Coffeehouse, an hour-long faith-inspired event hosted twice a year.

Hosted by Sun Kim (ChE '18) and organized by Sangjoon "Bob" Lee (ChE '19), Coffeehouse welcomed everyone to come and enjoy stunning musical performances by Jake Potter (ME '16), Christine Huh (Arch '18), and Justin Richter (ChE '16) and inspiring testimony by Neil Muir (ME '14).

"Coffeehouse gives the campus a chance to hear stories about students' unique journeys with God; it's always a time that challenges those that are sharing their stories and a beautiful moment when the audience meets the performers in their vulnerability," said Chae Jeong (ChE '16), President of Intervarsity.

With cozy, warm drinks, delicious homemade baked goods and featuring hilarious hosts, the Coffeehouse provided the Cooper community with a peaceful, spiritual end to a tiring academic week. ◊

## FACES OF COOPER: ABBY DAVIS

ANUSHREE SREEDHAR (ChE '18)



Photo prvoided by Abby Davis.

#### Where are you from?

I grew up in Birmingham, Alabama. I don't have an accent because my mom is from New Jersey. She's from the shore—that's right the Jersey Shore! She went to the same high school as Bruce Springsteen. She probably snuck into the Stone Pony and saw him.

# Tell us about your education and how you ended up at Cooper.

I got my Bachelor's degree in American history and classical humanities at the University of North Carolina, Chapel Hill; so, a very different place than Cooper. I went to a small high school so I wanted a big school and a college campus. I worked for a couple of years in Washington D.C., and then went to NYU to get my Master's degree in the history of education.

I wrote my thesis on student protests, specifically the Student's Nonviolent Coordinating Committee, better known as the SNCC. It was quite ironic because when I started at Cooper just after finishing that, students were occupying the President's office. It's very rare that you get a degree in liberal arts and it has any sort of correlation to what you actually do. I went from perfect public school education my whole life to ruining that with NYU. However, it did bring me to Cooper!

# What is your role here at Cooper?

As one of the director of admissions, we recruit students! So we go to high schools: fairs or private meetings and we talk to counselors, teachers, and potential students. We also host events for them here so that they can learn more about Cooper specifically I, along with the help of Theresa Leary, our Administrative Assistant,

organize campus tours and tour guides (I love my tour guides!).

Another major event we have is Women in Engineering. That is really important to us because, like any other engineering school, we are trying to get more women into the field. If you look at architecture, they have a great mix of male to female and they are able to make that organically. With engineering we are really trying to push for women and, of course, underrepresented students overall. Women in engineering is great because you really get to see the connections that people make. The current students are here as mentors and gives the women coming into here a sense of security saying "I am going to be the minority, but I can look around and see all these classmates who are excited." I think a lot of friendships are made there.

And of course, reading applications is a huge part of it so we read all the undergraduate applications for the school of engineering. We help the committees within the art and architecture schools read their applications by making sure the students have all the help they need when applying. That includes answering any questions, sending and receiving the home tests, and making sure all their test scores and recommendations are in.

# So how does the application process work?

It's a holistic process, which is what every single admissions office is going to say. For engineering, we are looking for certain things: someone with good grades, someone who is taking the hardest math and science classes, someone with good standardized test scores. A lot of people who apply have those qualities so a lot of it goes into the second part which is where you talk

about yourself and that's where we see whether you are a good fit for Cooper. Obviously there are plenty of really smart people out there who wouldn't be a good fit here. We want to make sure people have done their research about Cooper and what makes Cooper unique. We want to make sure students know what they are getting into and that their parents didn't just tell them to do engineering or pre-med. At age 17, it's tough to decide what to do with the rest of your life, but some students know and those are the students we are looking for.

Letters of recommendation are really important and we want to see students who are respected by their high school teachers. There is that kind of factor where every incoming class is different depending on who is applying. For example, this years first year students have a ton of students who were theater kids like they did set design or something and we thought that was new. That's good for engineers; it's exposure!

I remember when I was accepted into Cooper and came to the Women in STEM event. I walked in and you immediately knew who I was. How do you remember all of the students??!

I think I have a little bit of a photographic memory. I think that is why I'm good at history because I would be like "Oh, I remember that on the page." Also, we read all about you guys and we spend so much time thinking about the applicants. Anyone who says something funny or something weird we will remember that. It's just part of the process! We spend so much time with the files and talk about them to each other and talk about them with Dean Lipton when making our case. It's fun to put a face to an application! I also want it to be a personal experience for the students. I want you guys to come in and feel like people know your name and are happy to see you.

# In your words, what is the benefit of having a diverse class?

I think there are multiple benefits to having a diverse class (diversity here meaning many things - race, ethnicity, socioeconomic standing, background, culture, even personal experience). First and foremost, Cooper exists in a diverse city, so a diverse class means that we are reflecting our location and continuing to serve the population that we have for the past 150 years. A diverse class means that we are doing our best to help many different groups access a top-quality college education. I also think students benefit from a diverse class in terms of opportunity and learning experiences. The world outside college is diverse, so shouldn't college be, too?

#### How does Cooper attract underrepresented minorities and achieve greater socioeconomic diversity?

Any way that we can! We visit so many different kinds of schools-public, private, parochial, magnet, specialized-because you never know who you will find at those schools. New York City public schools are some of the best in the country and draw from a wide population, but some of the most expensive private high schools in the city, for instance, actively pursue students who otherwise could not afford to go there and give them a full scholarship. So we visit as many high schools in this area as we can.

We also do work with some

local community groups that actively assist underrepresented students in preparing for college. And sometimes students from outside our local area, even places we don't recruit, seek us out, which is always great. But of course, once you get students on campus, you still need them to stay there-through financial support, but they also need to feel like they are a part of the community. Some of the Ivy League schools have come under scrutiny lately for neglecting the latter, but I think Cooper is different because it has always drawn from many different demographics, not just the elite.

# Since this is the Valentine's issue I must ask: how do you celebrate Valentine's Day?

Even when I'm in a relationship, my friends and I like to see the worst movie that we can find on Valentine's Day. And this is regardless of who is dating. Last year we saw "The Loft" which I don't recommend. It was a scary thriller and we literally scour the newspapers for the things that get the worst reviews. \$\delta\$

# TENURED AT COOPER

ROBERT GODKIN (ChE '18)

Recently, Professors Robert Smyth, Benjamin Davis, and Stanislav Mintchev all received tenure at the end of the fall 2015 semester, and are now full time professors at the Cooper Union. The tenure position in any school deserves high praise. It is a position of respect amongst students and professors alike.

So, what is tenure? For those who don't know, or fully understand the significance of the title, a tenured professor now has a 'permanent residence' at a school, being given job security and a greater 'sense of belonging' in the community. Becoming a tenured professor usually happens over the course of several years, and the factors considered in the approval of the tenure position include teaching ability, publication records, communal service, and faculty and student advising.

Professor Smyth is a Cooper alumnus ('90), returning to the engineering school in 2006. He previously held a tenure position at Georgian Court University, but when offered a position at Cooper by our Mathematics Department head, Professor Agrawal, he was convinced to return to Cooper. Interestingly, he was granted tenure by the committee in 2012(!); however, Professor Smyth's title and name as a tenured professor will be active this coming Fall 2016 semester.

Professor Smyth took a sabbatical leave for the 2013-2014 school year, and spent time working on computational software, a so called "Tech Companion," for the Calculus I and II courses. He says that he was very motivated and aimed to be very thorough in his description of the calculus-related software implementations in order to provide students another resource. He was also able to present and meet with Ravi Kulkarni, a leading mathematician in Lorentz Surfaces, who had previously inspired Smyth to work on similar theorems and proofs. Professor Smyth is currently working on translating Jing Zhong Zhang's " $\sqrt{2}$  and beyond" into English.

As part of the Chemical Engineering faculty, Professor Benjamin Davis began teaching courses at Cooper in 2009 as an assistant ChE professor, and has taken Cooper's chemical engineering students to several chemical plant tours, including tours at Infineum at the Bayway Refinery. He has represented Cooper across the country at AIChE meetings, and given talks on the purpose and importance of engineering on several educational and professional levels.

When asked about his plans for a sabbatical, Professor Davis said that "[he] needs to talk to his wife about that." He says that a sabbatical leave is an important part of the tenure process, and allows a professor to focus on a single problem and possible research topic that he or she may normally not have time for while instructed several classes. As a tenured professor, Professor Davis aims to work with students on more independent research projects, and believes it is important to build a career as a scholar, and as professor within the institution, and amongst fellow chemical engineers.

Professor Mintchev began working at Cooper in the fall of 2008, quickly becoming an established professor of mathematics at Cooper. He has been working on developing a BS program in mathematics, and has collaborated with Professor Om Agrawal on several reports and presentations.

Each of our new tenured professors help define Cooper, whether it be defining domains through rigorous proofs, or giving sense to fuzzy logic. We now have three more professors trapped at Cooper, or rather three more professors to be trapped with. Either way, having more tenured professors at Cooper is a major benefit to the students in the School of Engineering.  $\Diamond$ 





Photos by Wentao Zhang (ChE '19). Not pictured: Professor Stanislav Mintchev.

## FACES OF COOPER: GEAROID DOLAN

MATTHEW GRATTAN (ChE '19)

#### Where are you from?

Gearoid Dolan: I'm from the north side of Dublin, Ireland. I lived there until '87 when I graduated from art school and then I came directly to New York.

#### What brought you to New York?

I was advised by an Irish artist living in the city that my work would be well suited here. So I thought I'd drop by New York on my way to live in Berlin, and I haven't managed to leave since.

#### How did you wind up at Cooper?

I started working at Cooper in 2000. I had been teaching at Stevens Institute in Hoboken, and a good friend of mine, a Cooper alum, used to teach web design here, put me forward as a potential candidate for the director of the Computer Studio in the School of Art. We were still in the Foundation Building at that time and Cooper's IT department didn't exist. There were separate computing centers for each of the three schools. I was brought in to basically take what was the Computer Studio in its early stages and turn it into something big and useful for art students.

#### So at some point the different computer labs were integrated?

Yes, when we built the New Academic Building. The idea was both out of practicality that we're building a new building and we should put all the new technology there, and because the Middle States accreditation committee suggested that we coalesce my department with the Computer Center and form the IT department. So the Computer Studio handles the Macs, the Computer Center handles the PCs, and together we handle the Architecture Lab.

#### **Is there anything that you** tial arts go very well togethparticularly enjoy about directing the Computer Studio?

I am very passionate about creating art and facilitating the creation of art, and so the art students, which were my original mandate, are still high on the list of my purpose in life in Cooper. Now that we've expanded, architecture students have come much more into that area too, so we're helping them facilitate their work. The big picture is that I just really like helping students make their work and helping people be creative in any aspect of it.

#### I understand you have been working on an art project named screaMachine. Would you like to talk about that?

ScreaMachine is an art project I started the year I came here in '87 and I've been working on that ever since. My central passion in life is to make political art, to make reactive art, and art that is involved in community and the current state of affairs. I refer to my work as technology enhanced performance art and it's about interacting with the public. I try to take the message to the people as opposed to only existing inside of a gallery.

#### What are some of your other passions?

Another passion of mine is that I'm a martial artist. I've been studying jiu jitsu for a long time. I'm five years into my first black belt and I'm about to earn my second-soon I hope. I design the website for the martial arts studio and produce the videos for them.

The third big passion in my life is making music and night clubbing. Through the 90s I was DJ-ing and making drum and bass music. I like to dance, and so the dancing and the marer because the both keep me really fit. Originally, I was in punk bands when I was 12 or 14. As electronica came into the scene, I followed that route. I do know how to play drums and bass and other instruments, but I haven't touched an analog instrument in 20 years. I compose on the computer mainly, but all of my analog music skills come into play. I particularly like the rhythm section and I spend a lot of time figuring out intricate drum patterns with heavy bass over the top. All the rest is superfluous; I'm not a big melody

#### Do you have anything that's currently in the works as far as art or perhaps plans for the future?

I always have plans-plans

to take over the world! Not actually. My current art project, called Psoup Kitchen (as in pseudo soup kitchen), is an interactive soup kitchen. It's a comment on the politics of charitable giving and how people take the opportunity to proselytize their institution while taking advantage of poor people who need to eat. In this case there's a lot of identity in it. When you enter the soup kitchen you have to give of yourself in many ways in order to get the food. It's almost like an obstacle course of machinery. For example, you have to be photographed when you enter and then a barcoded ID is printed out and you scan the barcode to get a bagel. It's a commentary on the disenfranchisement of poor and affected people being manipulated by the caregivers. It's become even more relevant since the Snowden documents were released because the nature of identity and surveillance has changed.

I have another ongoing piece that has to do with identity too, which is my spiral belly tattoo. Whenever I get government identity numbers like my driver's license number and my passport number, they get added to the tattoo. As I get more into the governmental system, I get more numbers. The idea of this piece is that it starts out with my birthdate at my navel, which is the point of your first identificationonce the umbilical cord is cut, you become you. Then it expands in sequence through all the numbers I've been given, and when I die the final thing that goes on there is my death certificate number and then the piece is complete. The piece is called Define Me and so it defines me as I have existed in bureaucratic systems. Identity is one of the issues that is important to me, especially identity relative to society.

#### Would you like to share a particular story from your time at Cooper?

One of the things that had the greatest emotion for me at Cooper is the recent turmoil with the tuition coming in, and the passion of the students and their reaction to that. I identified with that closely, and it made me proud to be a member of Cooper. I've always thought that this is a great place to work, that it's a very positive role in the world, and it gives to other people. Any mitigation or watering-down of the mission affects all of us emotionally and responsibly. While it was a very troubling time for me it was also a proud time for me to see the students stand up for something we'd hope to attain again someday. The sense of community is one of the greatest aspects you have at Cooper, and I find that people thrive here because of that.

#### Do you think the sense of community has changed since that time?

Time will tell in retrospect dark rooms, which all cost



when we look back on this era of turmoil and change. Whether or not that will have a long-term effect or whether it effects the nature of students themselves is really hard to say.

#### Do you have some words of advice for Cooper students?

I would say that the greatest mistake you could make is to not take advantage of all the facilities and people you have available to you. The facilities and staff at Cooper are fantastic. The students here have access to many, many more minds than most students have access to at other schools. The people here are some of the greatest assets, and if you can use everything to its full extent, you're going to really benefit from being here. For me the biggest thing when I left college was that suddenly I had no access to wood shops or metal shops or

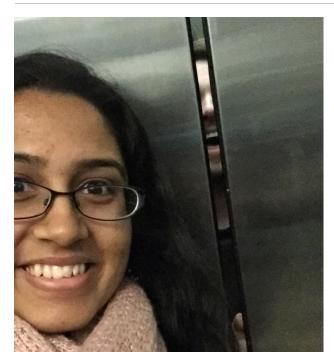
a fortune in New York. Use the resources while you can, that would be my biggest advice.

#### Would you like to add anything about your personal life?

Well, I'm a dog owner. I've got two pit bulls. My wife and I rescued them last vear around this time. They were left to die tied up to a fence in deep snow on Long Island, when a rescue organization found them and we took them in. That's a big part of our life now. My wife's in fashion design and about to begin costume design and party design. That's part of the nightclub element that I'm now involved in, throwing nightclub events that are also costume events. My degree in sculpture comes in very handy there when I'm making face molds and prosthetics. My home life is very much about fashion and creativity too. ◊

### NOT SO UPLIFTING: FAGAN TRAPPED IN FARADAY CAGE

RUCHI PATEL (ChE '18)



"Let's take a selfie". Photo by Anushree Sreedhar (ChE '18).

On January 25, senior Daniel Fagan (CE '16) took the express elevator at 41 Cooper Square in order to transport a box of goods he had bought and was going to sell for profit. He had just peed and was going down to get Chipotle. On his way down, the young businessman experienced something that would give him lifelong PTSD (post-traumatic stress disorder). On its way from the 5th floor to the ground floor, the express elevator car stopped about four feet above the ground floor.

Trapped, alone, and mostly bored, Fagan pulled apart the elevator doors with his fingers in order to maintain contact with human life. Friends even slid their fingers through the small opening to provide Fagan with human touch, and most importantly, hope.

"Don't worry, Dad. We'll get you out," said sophomore Anushree Sreedhar (ChE '18). "Here, let's take a selfie." Despite ongoing news that Fagan would be released "soon" or "in fifteen minutes," Fagan was trapped for one hour and twenty-one minutes, from 4:24 P.M. to 5:45 P.M. "I started to see chains everywhere I went," he claims. "The elevator atmosphere is not exactly optimistic."

Luckily, Fagan's phone had full battery and Wi-Fi service, a "best-case scenario," according to him. To kill time, Fagan did pushups and spoke to anyone who passed by. Unfortunately, "Nobody had any Nutrigrain bars or skinny foods they could slip through," Fagan recounted.

It seems Cooper Union students have been experiencing elevator troubles everywhere. Marymount residents have considered taking the trash chute to the lobby. It doesn't help that the Marymount residence staff likes to take elevator rides for enjoyment during lunch breaks. In the 29 3rd Ave freshmen dorms, students have resorted to formulaically stopping on floors that are convenient if students are willing to ascend or descend one storey by stairs. In the meantime, we pray that Dan Fagan recovers. ◊

# **COOPER IS FOR LOVERS**

# CAMPUS SPOTS

TOBY STEIN (CE '18)

The library: Underrated Cooper spot when you are trying to get work done with someone you like. Quiet, interesting and productive. Next time you're trying to enjoy someone's company and be productive as well, go to the library and grab a table to yourselves.

Under the banister on the grand staircase: It is a great place to hang out, talk, or eat together. It is never a quiet place, as you will run into all your friends there, but it is certainly a fun conversation hub.

**801, NAB:** Too cold outside, but you still want to admire the winter sunset? Head up to 801 and sit on the back counter. Sunset on VDay is 5:30. Make sure that you are up there with a fun friend to admire the sun going down on the best city in the world.

Print shop, Foundation building: Does your lover love plants? Does your lover love prints? Perfect, you should head on up to the Foundation building print shop, and enjoy this great place to hang out with that special someone.

Alumni Terrace: Want to brave the cold and admire a sprawling view of the east village and midtown east, head to the alumni terrace with a blanket and a picnic basket for this great, easy date idea.

The ledge outside Foundation building: Trying to get a breath of fresh air and enjoy watching the circus that is this city? Sit outside of the Foundation building on the ledge and admire the hustle and bustle of this great city.

209, NAB: An oddly shaped room tucked away under the Grand Staircase, many people don't even know it exists. There are speakers, a cosy couch, and an endless supply of tea. Oh yeah, we make the newspaper there.



Vishesh Padnani and Anushree Sreedhar on the Grand Staircase. Photo by Winter Leng (ChE '18).

## **ALUMNI COUPLES**

BRENDA SO (EE '18) | CORY NEZIN (EE '18)

The conventional wisdom is that it is pretty much hopeless for a Cooper student to expect to find their life partner during their four or five years of struggle here. However, there are a few couples out there who prove that love can exist and extend after Cooper.

# Professor Robert Smyth (BSE '90) and Theresa Smyth (ChE '92)

"When I talk about Fourier series in class, I tell the story of how I showed Theresa a method of finding the infinite sum of alternating inverse squares. She was interested in approximating a finite sum to model the net electrostatic force within a crystal. At that time we already knew each other. I first met her in fall 1988. At that time she was a freshman and I had recently transferred to Cooper the year before. We got to know each other better and we started dating. She was a chemical engineer and I was in the BSE program since I already knew that I was going to go into mathematics in the future. I enjoyed the freedom in interdisciplinary engineering by taking different kinds of classes. I took classes in mechanical, electrical and civil engineering, but I never took a class in chemical engineering, so I used to say that I made up for that by marrying her!

When I told her about this interview, she told me, 'I knew you were very serious by how early you came in the morning to meet me.' Every one who knows me knows that I am not a morning person, but during our time at Cooper, I used to wake up early and sleep at the lounge of the now-demolished engineering building so that I could see her. We got married in 1994 and I finished my PhD in 1995. We started with a modest income—I was a research assistant in a mathematics graduate program at Rutgers, and she got a job right after graduation with the City of New York. Currently, we are living in Central Jersey with our daughters HongHong and ShuShu."

#### Professor Brian Cusack (ME '00) and Lynn Cusack (ChE '04)

"I met Lynn in the first week of September, 2000. I was a senior ME teaching an introduction to swing dance in the Menschel room of the dorm, she was a freshman ChE attending the event. As we still joke: I swept her off her feet, and thankfully didn't drop her! Many AIM sessions, emails and late night chats went by as we grew to really hit it off and realize how much we had in common. Shortly before her graduation I proposed on the great lawn of The Cloisters museum. She said yes, and a year and a half later we were married and living in New Jersey. We just celebrated our 10th anniversary with a trip to Lake Tahoe where we spent a week hiking, fishing and kayaking.'

#### Elaine Maldonado (Art '68) and Tim Maldonado (Arch '66)

"My husband Tim and I met on my first day in NYC, waiting in front of the circular elevator, and we were a couple throughout my time at Cooper. Neither of us are from NYC. I am from Pennsylvania, and he is from Argentina. He seemed pretty exotic to me. Green Camp was very important to us. New student orientation was held there....we all stayed for a few days. Also, students could plan a country trip to Green Camp for fun or work throughout the year. They had those big eagle sculptures from Penn Station up on a hill. It was the soul of Cooper, and its sale was a travesty. We had been a couple for 3 years when we married, and actually I was still an undergraduate at the time. I'm not actually sure where Tim proposed- it might have been in the Washington Mews or at Pete's Tavern in Gramercy Park. We have been married for almost 49 years, with one son (another architect), a granddaughter and another grandchild on the way. Editors's note:

(The authors of this article are also dating).

## ROMANCE RADIO

BRANDON QUINERE (CE '19)

The Pioneer polled everyone about their favorite love songs of all time. Based on your submissions, we have curated the ultimate Valentine's Day playlist for you on this fine cuffing season.

- 1. **The Cure "Lovesong"** The other famous "I will always love you" song. No shade to Whitney, but this just might be the better one.
- 2. **New Order "Temptation"** 80s new wave captured that sensation of catching feelings almost too well, didn't it?
- 3. Carly Rae Jepsen "Run Away With Me" Current savior of pop music Carly Rae Jepsen and her trusty saxophone have one thing to say: "spontaneous weekend adventure" is the new date night.
- 4. Backstreet Boys, "As Long as You Love Me" All the sentiment of Usher's "I Don't Mind" via a 90s boy band aesthetic. Take notes, slut shamers.
- 5. **CeeLo Green, "Fuck You"** By the time that bridge arrives, you'll want to pop the lid off that Ben & Jerry's and cry along with CeeLo.
- 6. **Maroon 5, "This Love"** Those toxic relationships? Adam Levine is an expert on those.
- 7. **Edward Sharpe & The Magnetic Zeros, "Home"** This tune goes out to the universal valentines: your bae, your best friend, your pet!
- 8. **Yo Gotti, "Down in the DM"** Let Yo Gotti give you the how-to on sliding right in.
- 9. **Ginuwine, "Pony"** Whether you're the Channing or the Jenna in the relationship, choose your roles wisely. It's about to get pretty steamy.
- 10. Shakira featuring Alejandro Sanz, "La Tortura" Belly dance your way into that special someone's heart; this method is foolproof.
- 11. **Marvin Gaye, "Let's Get It On"** Don't let that terrible Charlie Puth song stray you away from this OG bedroom jam.
- 12. **The Weeknd, "Wicked Games"** "Bring the cups, baby, I could bring the drank." Healthy relationships are about mutual giving and receiving.
- 13. **Beyoncé, "1+1"** Listen up, the Queen B's about to school you on love making.
- 14. **The Civil Wars, "Dust to Dust"** If you catch yourself Draking this month, change it up with this somber folk duet.
- 15. Elvis Presley, "Can't Help Falling in Love" The ultimate come down for any 14th of February.

Check out a Spotify playlist of these songs at goo.gl/dDDBZz

#### **UNSOLVED MYSTERIES**

JUSTIN RICHTER (ChE '16)

Throughout our years at Cooper, the seniors have discovered and solved many mysteries about this place and how it works. There are some mysteries however, that remain unsolved which we would now like to pass on to you all so that you may try to find their answers.

Why do the elevators need chainmail and which feudal lord do they serve?

What is Frankie's real name and why does he hide it? (our two biggest theories so far are that he's on the run from the law or a powerful sorcerer).

On the topic of Frankie's, is there truly too high of a price for Frankie's chicken sandwiches?

Why are classes never held in room 106?

If a tree falls on top of me and nobody's around to save me, will the business office still send my bill to my old address a month late (with the late fee already attached, of course)?

How much chalk does the average professor wash out of their clothes at Cooper?

Does Robdallah know? He has to know, right?

What would it be like to go out for drinks with Stock and Wolf at the same time?

At what point do the freshmen stop seeming kind of weird?

Who thought 25live would be a good idea?

Does the Architecture home test require a head shot and/or personal wardrobe description?

How does the writing center find such overqualified people and why are they wasting their time fixing my grammar?

What is the obsession with Cataldo in our CivE department?

Professor Wolf, when will we start needing accelerated reference frames? And how many physics toys instruments does Wolf actually own?

How is Abby Davis able to remain so bubbly?

If the dorms were empty and nobody was around to steal the laundry carts, would they still go missing?

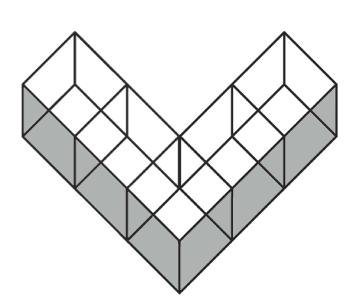
Where is the weed smell coming from?

Where did the foosball table in Frankie's go?

How many tuitions could each Dean Baker athletic field trip pay for?

How many people would need to fall down the grand staircase before something is done about it?





Dear \_\_\_\_\_,

Wolf's class is hard

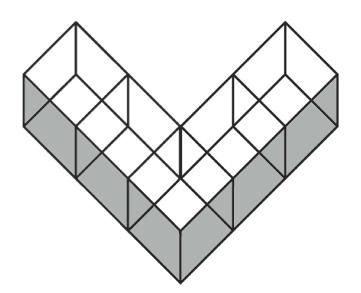
And Yecko's is too,

But it would be all better

If I could go out with you

u cute AF I have no one this Valentine's Day but I'm not sad about it because I'm single every other day of the Man I ain't got no choice year as well. - Anonymous Cause nowadays I swear this shit done changed up for the boy I'm self-made, selfish with my women, self-employed Dear Chris Brancato, I'll buy the neighbors house if they complain about the noise I meet your sensual gaze as you walk up to your apartment. The same apartment that shares a wall with apariment. The same apariment that shares a wall with mine. Especially this time of year, I want us to share more than just a wall. I want to share your time, share your love, and share eternity together. <3 -bianc "My relationship has gone on "I don't love anyone except myself." for 19 years and counting. I -Anthony Traina (ChE '16) Hove Indian people .. especially Prof. love myself." -Ahmed Daniel, Hossam, Robert, and Justin: Sometimes for fun, my friend and I walk through the My dearest Andy Tong my love streets of New York and try to break up couples that are Every time you guys sit in the same row, for you blooms like a forest of lilacs Debroy and Prof. Kumaresan. the enthalpy of the room increases. holding hands. It's a good test. You know what the best thing to do on -Anonymous Valentine's day if you are single? Schedule - Anushree Sreedhar (ChE'18) your wisdom teeth appointment for that day. Anonymous Dear you, You are basically high, you feel good, and -Anonymous get to hit on a single dentist with perfect You are the single most beautiful person on this entire world. It doesn't matter if there's someone by your side or a hole in your heart has yet to teeth. - anonymous be filled -- you are beautiful. I love you for being here. I don't care who you Antonia, it is impossible to count the ways you are, nor how you're doing in school. I only care about the fact that you're improve life for me. You light up a room, you're alive, and that you're here, sharing this experience with me. the life of the party, and you don't only aim for the stars, you become them. The future for most is a Please don't ever leave me. Please don't leave us. It would hurt us all if mystery, but your future will go down in history. I you did. Because you are part of the tapestry of the history of this school. love you to the moon and back. - Anonymous You will make your own impact on it, however small or large it may be. And you will find that special someone, some day. Maybe not within these walls. But you'll find them, whoever they may be. Bernie is very handsome and reliable. He keeps this school running and all the And if you've found them, then be sure to hold onto them as tightly as you professors respect him! Shoutout to Bernie! can, because this time is precious. Enjoy every moment you have as if its the last you two will ever have together. · Anonymous You are going to be okay. Whatever's happening right now, you'll be okay. I get to live with the loves of my life everyday you be my sky, I'll be your stars - Phillip Gallagher Dearest Marcin aka Babycakes, because of you girls! xoxo Macullius Ever since the first day we met, I've been in secret (not really secret) admiration - a girl of 5c of your braw-I mean brains and personality. You may seem quiet, but I know that I never stopped drawing. Even when she left you are a beast in be-I mean when you are eating mac and cheese. Seriously me and took the G-Pens in the divorce. These though, that one night you just kept eating and eating. I watched you in awe even are what i could manage to make once she left. -Anonymous then. I hope that's not weird to say and please don't think I'm a creep because I have the hugest crush on you. Anything you do, from eating to running a half I have no game. Anu sheds so much hair that I collect it, so I marathon (like wtfudge that's insanely attractive), I am impressed by. And even though I tend to make fun of you a lot, that's just how I express that I like you. I'm -alfred dudley iii can make her a wig for her elder years. just that type of gu-I mean girl. But seriously though, you're one of a kind, and your drive, work ethic, kindness, and boot-I mean physical fitness level motivate me to want to become better in everything I do, just like you. WHY'D YOU SWIPE RIGHT FOR? When life gets you down, don't ask Ruchi YOU'RE NOT ANSWERING MY TINDER I really can't English when I'm thinking about you, and I know I'm not worthy, but please be my Valentine. - Anushree Sreedhar (ChE '18) I feel like life is a duet I'm forced to play Dear Chris Brancato, what to say to you? alone... Someone love me pls. - anonymous Am I really missing out by being single? Being in a relationship is like You have my eyes. You have world, you cried and it broke my heart taking a 4 credit course. - anonym.

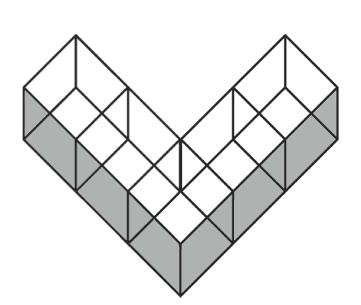
When you came into the world, you style Yours truly You have my eyes. You have your mother's name I just want Geovanni Sanchez to know that I love him. He's the best man I know, and words taking a 4 credit course. - anonymous cannot describe my feelings for him. You rock man, and you mean so much to me. Domestic life was never quite my style You are a sexy beast and I want to be with you. No, I want to be When you smile, you knock me out, I fall apart -Camilo Gaitan (EE '18) you. Your gaze pierces my soul and I want to bear your children. All 81 of them. Nine nonuplets. We can elope and I can caress Dear Andy, Camillo, Gio, Mateen, Tom, Anthony: your cheeks (the ones on your face too). Hmu l8er bb xoxo And I thought I was so smart You guys are family, 3R is our second home, and we love COMPILED BY -Anonymous you so much! ANUSHREE SREEDHAR (ChE '18) AND -Anonymous MARY DWYER (ChE'19)



Dear \_\_\_\_\_,

Is your name WiFi?
Because I'm really feeling a connection

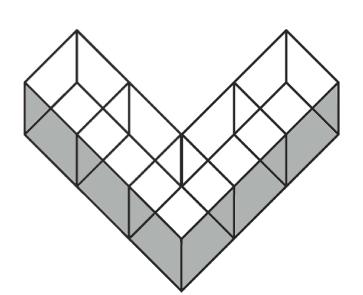




Dear \_\_\_\_\_,

If I took you out to dinner, it wouldn't be 2 Bros, and it wouldn't be Ray's. You're worth Artichoke.





Dear \_\_\_\_\_,

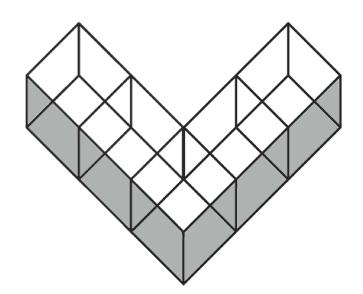
What do you and a ceiling fan have in common?

I'm gonna ask you both out on a date.

Except for the ceiling fan.

u cute AF I have no one this Valentine's Day but I'm not sad about it because I'm single every other day of the Man I ain't got no choice year as well. - Anonymous Cause nowadays I swear this shit done changed up for the boy I'm self-made, selfish with my women, self-employed Dear Chris Brancato, I'll buy the neighbors house if they complain about the noise I meet your sensual gaze as you walk up to your apartment. The same apartment that shares a wall with apariment. The same apariment that shares a wall with mine. Especially this time of year, I want us to share more than just a wall. I want to share your time, share your love, and share eternity together. <3 -bianc "My relationship has gone on "I don't love anyone except myself." for 19 years and counting. I -Anthony Traina (ChE '16) Hove Indian people .. especially Prof. love myself." -Ahmed Daniel, Hossam, Robert, and Justin: Sometimes for fun, my friend and I walk through the My dearest Andy Tong my love streets of New York and try to break up couples that are Every time you guys sit in the same row, for you blooms like a forest of lilacs Debroy and Prof. Kumaresan. the enthalpy of the room increases. holding hands. It's a good test. You know what the best thing to do on -Anonymous Valentine's day if you are single? Schedule - Anushree Sreedhar (ChE'18) your wisdom teeth appointment for that day. Anonymous Dear you, You are basically high, you feel good, and -Anonymous get to hit on a single dentist with perfect You are the single most beautiful person on this entire world. It doesn't matter if there's someone by your side or a hole in your heart has yet to teeth. - anonymous be filled -- you are beautiful. I love you for being here. I don't care who you Antonia, it is impossible to count the ways you are, nor how you're doing in school. I only care about the fact that you're improve life for me. You light up a room, you're alive, and that you're here, sharing this experience with me. the life of the party, and you don't only aim for the stars, you become them. The future for most is a Please don't ever leave me. Please don't leave us. It would hurt us all if mystery, but your future will go down in history. I you did. Because you are part of the tapestry of the history of this school. love you to the moon and back. - Anonymous You will make your own impact on it, however small or large it may be. And you will find that special someone, some day. Maybe not within these walls. But you'll find them, whoever they may be. Bernie is very handsome and reliable. He keeps this school running and all the And if you've found them, then be sure to hold onto them as tightly as you professors respect him! Shoutout to Bernie! can, because this time is precious. Enjoy every moment you have as if its the last you two will ever have together. · Anonymous You are going to be okay. Whatever's happening right now, you'll be okay. I get to live with the loves of my life everyday you be my sky, I'll be your stars - Phillip Gallagher Dearest Marcin aka Babycakes, because of you girls! xoxo Macullius Ever since the first day we met, I've been in secret (not really secret) admiration - a girl of 5c of your braw-I mean brains and personality. You may seem quiet, but I know that I never stopped drawing. Even when she left you are a beast in be-I mean when you are eating mac and cheese. Seriously me and took the G-Pens in the divorce. These though, that one night you just kept eating and eating. I watched you in awe even are what i could manage to make once she left. -Anonymous then. I hope that's not weird to say and please don't think I'm a creep because I have the hugest crush on you. Anything you do, from eating to running a half I have no game. Anu sheds so much hair that I collect it, so I marathon (like wtfudge that's insanely attractive), I am impressed by. And even though I tend to make fun of you a lot, that's just how I express that I like you. I'm -alfred dudley iii can make her a wig for her elder years. just that type of gu-I mean girl. But seriously though, you're one of a kind, and your drive, work ethic, kindness, and boot-I mean physical fitness level motivate me to want to become better in everything I do, just like you. WHY'D YOU SWIPE RIGHT FOR? When life gets you down, don't ask Ruchi YOU'RE NOT ANSWERING MY TINDER I really can't English when I'm thinking about you, and I know I'm not worthy, but please be my Valentine. - Anushree Sreedhar (ChE '18) I feel like life is a duet I'm forced to play Dear Chris Brancato, what to say to you? alone... Someone love me pls. - anonymous Am I really missing out by being single? Being in a relationship is like You have my eyes. You have world, you cried and it broke my heart taking a 4 credit course. - anonym.

When you came into the world, you style Yours truly You have my eyes. You have your mother's name I just want Geovanni Sanchez to know that I love him. He's the best man I know, and words taking a 4 credit course. - anonymous cannot describe my feelings for him. You rock man, and you mean so much to me. Domestic life was never quite my style You are a sexy beast and I want to be with you. No, I want to be When you smile, you knock me out, I fall apart -Camilo Gaitan (EE '18) you. Your gaze pierces my soul and I want to bear your children. All 81 of them. Nine nonuplets. We can elope and I can caress Dear Andy, Camillo, Gio, Mateen, Tom, Anthony: your cheeks (the ones on your face too). Hmu l8er bb xoxo And I thought I was so smart You guys are family, 3R is our second home, and we love COMPILED BY -Anonymous you so much! ANUSHREE SREEDHAR (ChE '18) AND -Anonymous MARY DWYER (ChE'19)



Dear \_\_\_\_\_,

Did you read Dr. Seuss as a kid?

Because green eggs and DAMN!

# DEAN BAKER'S 40<sup>TH</sup> ANNUAL SKI TRIP

DANIEL GALPERIN (ChE '18)

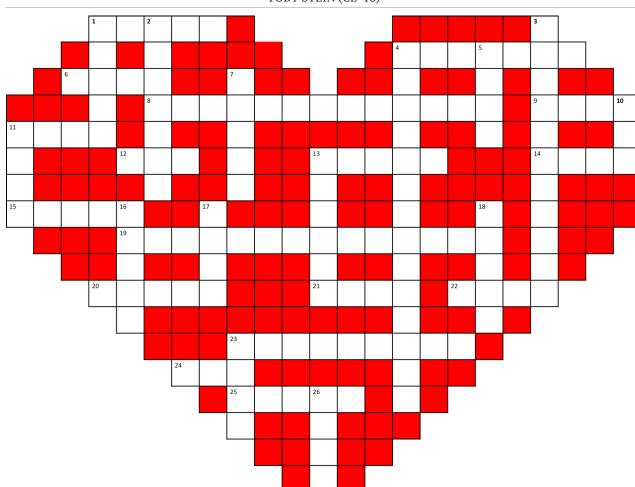
For Cooper Union's 40th annual ski trip, Mont Sutton honored Dean Baker with a lifetime pass to the resort. Baker says that this year, only 56 students went on the trip, compared the usual 100 or so that partake. Many students chose to work, do research or focus on their studies during the winter vacation and thus could not go on the trip. While that may be the case, Baker says, 'the first four people that agreed to go on the trip were the captains [of teams] and when I asked them their GPAs for the semester, they were three 4.0's and a 3.9." He continued, "being a Cooper student can be hard, but doing that while maintaining a commitment to a sports team is much harder." Baker went on to describe several important aspects of the trip. The chalet housing on the trip hosts between 4-10 people, and creates many bonding experiences for students of different years. Many first and second year students take advantage of this opportunity to connect to their fellow upperclassmen student-athletes. Dean Baker also says the trip is a good barometer for how students will behave when taken out of the city on matches and tournaments.



 $\gg$ 

## CROSSWORD PUZZLE

TOBY STEIN (CE '18)



#### ACROSS

- 1: Arrow shooter 4: Captivated, in love
- 6: Embraces
- 8: Unbeknownst lover
- 9: \_\_\_\_love, the best love 11: Come together, inter lock
- 12: To court, to try to win over
  13: Men's classy attire
- 14: I love you to the \_\_\_ and back
- 15: Forget \_\_\_\_ \_\_\_ 19: One sided love
- 20: Our galaxy
- 21: Classic weather for movie love scene
- 22: Third base, euphemism
- 23: Today's day!
- 24: Large body of water
- 25: Sugary

- **DOWN**
- 1: Middle school love2: Fire and fury emotion
- 3: Affectionate. 'Wicked' song: \_\_\_\_ Man
- 4: Namesake of today
- 5: I'm \_\_\_\_ between two lovers
- 7: Inside a quiver
- 10: Eternity 11: Injure, hurt
- 13: Romantic hopeful, male
- 16: Dutch flower
- 17: \_\_\_\_ valentine?
- 18: To desire, to pine
- 23: Flower holder
- 26: Cupid's Greek counterpart





"Winter storm Jonas is not affiliated with the brothers of the same name. An employee of The Weather Channel just thought it would be a good moniker." Photo above by Wentao Zhang (ChE '19), below by Vincent Him Hui (Arch '16).

The Pioneer made five Valentine's Day cards to help you tell that special someone how you feel. Cut along the line to make it yours!



