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ARTIST VICTOR MOSCOSO: TYPE CONFUSION & COLOR AGGRESSION

KELSEY MITCHELL (Art '18) | ALEX TOMLINSON (Art '18)



Photo Credit: Winter Leng (ChE '18)

On Thursday March 5, Type@Cooper, in conjunction with the Type Directors Club, organized for Victor Moscoso (Art '57) to speak about his prolific production of posters, hand-lettering works, and underground comics in conversation with art director and design historian, Norman Hathaway. His lecture, entitled “Type Confusion & Color Aggression,” addressed his career as a designer, in particular his renowned psychedelic poster art, and his place in the social environment of the ‘60s. After studying at Cooper, he went onto study at Yale, where he was taught by the celebrated color expert Josef Albers. This instruction with Albers, influenced one

of his signature motifs, the usage of vibrating colors to create his stimulating and disorienting posters. After moving to San Francisco in the late 1950s, he started his poster company, Neon Rose. His posters, which reflect the psychedelic and underground atmosphere at this time “sold like hotcakes.” In order to attract viewers, he purposely and aesthetically chose to make his typography seem almost illegible. This would then both captivate and bewilder the viewer and in a way, became one of the most intriguing forms of advertising of the time. Moscoso referred to himself as a “graphic entertainer,” where he could visually manipulate and attract the viewers of his work.

As we sat listening to him speak of his work, we felt inspired and motivated as young, aspiring designers. His reluctance to conform to color norms and legibility encourages us to take risks in design and image making. Moscoso’s impact on visual culture (typography in particular) proves to be as timeless and mesmerizing as it was in the 60s. From creating posters for The Who, Fleetwood Mac, Siouxsie and the Banshees, Herbie Hancock, and more, he took inspiration from music and incorporated it into his visual aesthetic. From this lecture, we gained valuable advice from such a prolific and influential artist. We saw how a designer is able

to translate the world and social culture around him to convey both mood and visual representation through type and graphic design. We certainly hope we age as well as he did. Moscoso’s work can be found in the collections of The Museum of Modern Art, The Louvre, The Tate Modern, and others. His show, “Victor Moscoso Psychedelic Drawings, 1967-1982 (Curated by Norman Hathaway & Dan Nadel),” opens at the Andrew Edlin Gallery (134 10th Ave, New York) March 6th and runs until April 25th. The lecture can also be viewed online at, vimeo.com/coopertype, due to the generous support of Hoefer & Co. ♦

CORRECTIONS: FEBRUARY 21, 2015

The article Cryptovirology?! was incorrectly attributed to Pranav Joneja (ME '18). The authors of the article are Andy Jeong (EE '18) and Kevin Sheng (EE '18).

Joseph Colonel (EE '15), far too salty in the wake of his Hack-a-thon defeat, incorrectly stated that no Cooper students placed. Arnold Wey (EE '18), Krishna Thiyagarajan (ChE '18), and Gabriel Korgood (ME '18) won third place with their Palmitron “hack.”

NEW: SUPPORT.COOPER.EDU

ANDY JEONG (EE '18)

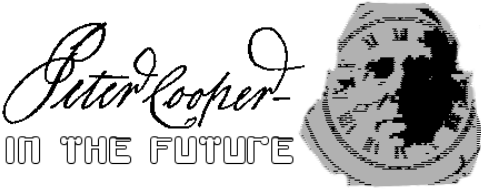
On February 12, the Office of Alumni Affairs and Development launched the website ‘Support Cooper.’ With designs similar to the main cooper.edu website—navigation bars on top and visualized announcements sliding along sideways—this site aims to share information and maintain connection with the Cooper community, especially alumni and donors. In efforts to foster engagement in the community and the school, as well as recognize its supporters, the user-friendly website allows for easy navigation to informational pages about supporting the school. This mobile-compatible site provides detailed descriptions of alumni’s philanthropic support, development initiatives, and other announcements with which students and alumni are associated.

Some might wonder why there is need to have a sepa-

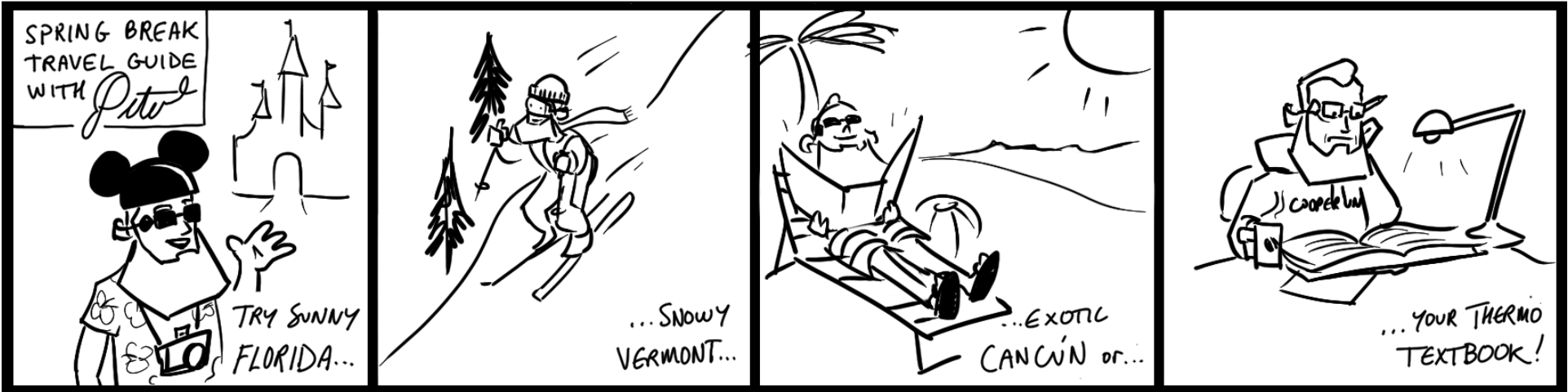
rate page dedicated to parents and alumni. While the current main website allows navigation to mostly student-related affairs, this new website contains the information that parents and alumni are expected to seek—ways to support the school and ongoing events throughout school. The alumni section describes how to get involved in and share the love of school—connecting with alumni nearby, sharing articles and exhibition updates through alumni network, attending Cooper free and public events, just to name a few. The menu bars “parents” and “alumni” on the main cooper.edu website are now linked to pages within support.cooper.edu. In this hopes of connecting all members of the Cooper community, the subpages under Alumni section are being constantly updated with up-to-date alumni information, including all engineering, art and architecture alumni. ♦



Photo Credit: support.cooper.edu



EPISODE TWENTY THREE



COOPER HUMANITIES POST-DOC: ALLISON LEIGH

CAROLINE YU (EE '15)

Last semester, Nicholas D’Avella and Allison Leigh joined the Faculty of Humanities and Social Sciences at Cooper Union. They are both postdoctoral fellows. Professor D’Avella specializes in anthropology and Professor Leigh specializes in art history. In describing the difference between HSS full-time faculty members and postdocs, Dean Germano says “a fulltime faculty member teaches three courses a term, participates in the important work done by committees, and contributes directly to the shape and objective of the curriculum. Having postdocs is a great way to supplement the quite small HSS fulltime faculty --we only have four fulltime faculty members teaching this spring..We do have an excellent adjunct faculty group, but they are very busy people, and most have teaching or other work commitments in addition to Cooper. A postdoctoral fellow comes for a year, teaches (though not as much as a full-time faculty member), and does research. The fellow is also on campus most days, and so has time to interact with Cooper faculty and with students. Time for studio visits, more office hour access, and a focus just on Cooper — these are some of the pluses.”

The Cooper Pioneer sat down with both post-docs to ask about their research and experience at Cooper so far. Interviews were edited and condensed. This issue contains our interview with Professor Leigh. The next issue will contain our interview with Professor D’Avella.

The Cooper Pioneer: Can you tell me about your academic background?
Allison Leigh: Sure! I just got my PhD in May of last year, so I’m a very new doctorate. But I had been teaching for a few years before that. I was at Montclair State University. They scooped me up at Rutgers, which is where I got my PhD, to start teaching for them while I was still a grad student. I did almost two years (three semesters) teaching various courses there. When I knew I would be finishing I started applying for post-docs mostly in this area but a little further north and a few further south. I was really hoping to stay in New York so Cooper Union was perfect for me. It really was the opportunity that I was looking for.

TCP: What did you research?
AL: I specialize in a couple of things. I have very broad interests in intellectual history and art theory. I’m generally considered in my field a specialist in Russian art history in the 19th century though I dabble a little bit earlier in the 18th century and then also push to about 1945 – right up to the end of WWII in Russia. I very

rarely look at Russian art in isolation though – I do what’s called cross-cultural analysis where I compare what’s happening in painting in Russia with what’s happening in France, what’s happening in Germany, how Russian artists are looking at British artists. I have a sub-specialty in masculinity (gender studies but specifically about men). My dissertation was about a character type known as the “superfluous man” that existed in Russian literature in the 19th century. I started examining to see if he also showed up in paintings. I



Photo Credit: Winter Leng (ChE '18)

expanded that out because I felt like I was finding something similar in terms of the way men were represented in Paris in the same time period. Right now I’m working on transforming that dissertation into a book manuscript.

TCP: What courses are you teaching now?
AL: I’m teaching the HTA101/102 survey course, which is the course that all freshmen art students have to take. It’s fun to teach because that’s probably the course I taught the most prior to coming here, but it’s structured very differently here. It’s a very special class at Cooper. Usually it’s a huge historical period – about 700-800 years from the beginning of the Renaissance to contemporary art, which in many ways is an impossible way of doing it. As much as I love it in terms of the comparisons you can do at the end of the semester, at Cooper it’s an entire year. It’s two semesters, and the course only goes from about the French Revolution in 1789 to now. It’s a much more protracted period and it’s exactly what I specialize in. I love that I have all of my students from the first section in the

fall continuing with me with a few new students now in the spring. I can try to guide them that whole first year sort of as a mentor. Not only for what art history is and what the basis of this whole system that we study is but how you write about art, how you think about art, how you look at art - all the methodologies that are around it. I’m teaching a single artist seminar too, which is also a dream. I had the opportunity as a grad student to take a seminar on a single artist. This seminar is on a French Revolutionary period artist, Jacques-Louis David. It’s

the very beginning of the period I study. I feel that too often I don’t return to that original space – so teaching it is getting me to think in terms of my own work. I think students are enjoying it – I hope so! It’s such a vital, important moment in history. The French Revolution is really the turn - it’s when so much changes.

TCP: Are there any big changes from Rutgers to Cooper?
AL: That’s such a great question – Rutgers is huge and Cooper is much smaller, and it’s structured completely differently. I would say it’s been a blast – I don’t know how else to describe it other than I love the model of what Cooper is – both pedagogically and institutionally but also all of the passion that lies behind it. I believe in that. Being here more and more I see how special each of those brains are but how much there is that’s the same. Having artists, architects, and engineers in my classes makes the discussions really exciting. Whereas at a bigger institution like Rutgers –teaching to a stadium of 100 students and not being able to have these one-on-one interactions was very difficult for me. I found that I was turning myself

inside out trying to make myself available – when it’s physically impossible. I don’t like to wear myself that thin. I would rather have really intense experiences with students where I’m helping them learn not only about history, but about how it is vital to their own work. In many ways the smaller class size is huge in terms of me being able to be the professor and mentor I want to be. I feel so blessed.

TCP: What applications do your research and work have?
AL: At the core, it’s something I ask myself constantly when I’m preparing a lecture, writing an article, or getting ready to give a conference talk. The buzzword that’s always in my mind is “relevance.” I’m not interested in producing scholarship in a vacuum about subjects that I think are only vital to specialists, who number very few in my very specialized field. I want to do work that speaks in some way to the human condition and is philosophically based. [It] is not straight-lined or hardcore history in its depths but is about how we can use history as a tool for understanding ourselves today. If I give a lecture on the French Revolution, I want it to be forcing us to think about revolutionary endeavors today and what we still care enough about that would lead us to act like they did back then. It’s the same with my research. As much I’m studying a very troubled character type among men in St. Petersburg in the 19th century I see those men still on the streets today. I feel like I meet them out and about at the library, at bars, at conferences. And I want to understand the “what went wrong” element. I think that images in particular can be this tremendous tool of going in and taking the machine apart like an engineer would. I really hope that what I do speaks in a larger sense and that my students get from my courses that applicability where it changes their practice - whether they be an engineer coming up with things that will change our future or whether they be artists struggling to find their voice and their medium. I hope that the way that I teach them to think cracks everything open, spills it all out and then allows them to put themselves back together again. And then hopefully that process is not too painful - though I think it can be. Part of what you guys are here to do is that painful finding-your-voice. Finding what you want to contribute to society in the same sense that Peter Cooper hoped that everyone who was here would leave here better, changed, different. I want my writing and my lecturing to change you and if it doesn’t I’m not doing it right...for me it’s all about those lofty goals and ambitious ideals. ♦

STUDENTS FORM COOPER’S WILL FOR CITY HIGH SCHOOLS

ANTHONY PASSALACQUA (ME '18)

Cooper’s Will (hereafter CW), founded by Brice Lee (ChE '15), is an organization dedicated to volunteering time for high school students and giving them a greater chance at success and happiness in their pursuit of higher education. Brice describes CW “as an organization that provides volunteer projects to nearby high schools.” Drawing inspiration from Brice’s time helping Korean students in New York City, CW was formed after many discussions with Dean Delagrammatikas. Dean Delagrammatikas offered CW classrooms in the NAB and encouraged the organization to help students of any and all ethnicities: an idea that CW enthusiastically took up. CW ran their “Engineering Major Exploration” pilot project in February. Communicating with the administration of some of the top schools in New York City—Brooklyn Technical High School,

Stuyvesant High School, and The Bronx High School of Science—they helped the city’s brightest get a handle on what to expect from engineering. Focusing on the branches of engineering found at Cooper Union, they told of what kinds of courses each major should expect to take, career opportunities that the students might find, and of mainstream companies that they may end up working for. By giving young students some guidance regarding engineering, CW hopes to make the decision making process of university much more transparent.

Of course, no program with high school students would be complete without fun, hands on activities. Hoping to pique students’ interest in a specific major early, activities such as bridge building using gummy bears as adhesive and linguini as building material were run during the pilot program. ♦

AFTER “THE BOX”: INVENTION FACTORY AND QUIRKY

BRENDA SO (CE '18)

On February 19, 2016, half of the participants of the 2nd annual Invention Factory successfully pitched their invention ideas and will eventually start their next stage of product development with Quirky, a company that allows inventors to bring their inventions to life and to the market. Invention Factory is a six-week program over the summer holiday. Fifteen selected applicants are paired into teams to work on an invention of their choice, which they develop over the course of six weeks. When describing the six week program Jessica Marschall said, “Every week, my partner, Deanna Kovalcin (ME '16), and I set a high goal for ourselves to reach, and more often than not, we did. We worked really well as a team.” Jessica and Deanna invented the Snip-It — a tape dispenser that attaches to any roll of tape. “That partnership, along with a never-ending supply of free food and Diet Coke, made Invention Factory a really fun place to be this past summer.”

This year, after Invention Factory, the inventions were submitted to Quirky for a special Cooper Union “eval” night. There were around 80 people present in the audience during the eval night and many more

who tuned in to the evaluation live stream. One of the viewers, Daniel Galperin (ChE '18), said, “Quirky made me want to join Invention Factory even more. Just the opportunity to have a real professional look at my stuff makes Invention Factory even more attractive.” That night, each group presented their products to the audience and a panel of professionals, and was subsequently challenged on how useful the product would be. MinJoon So (CE '17), the inventor of the Easy To Clean Humidifier (ETCH), talked about his nervous experience at Quirky: “As it got close to our turn to present our idea and answer questions, I suddenly became nervous and concerned about our invention—what if it doesn’t make it through? But as Jihu Kim (ME '17) and I were presenting, we realized the audience really liked our idea, and then excitement filled up my mind instead of anxiety.” At the end of the evening, a total of 4 inventions were accepted, Snip-It, ETCH, Dual Flush Retrofit kit and the Helmet Lock.

For more information about Invention Factory and this year’s projects, visit www.inventionfactory.org/IFInfo.html. ♦

NEW DORM FOR ALL STUDENTS: UNIVERSITY HOUSE

MONICA CHEN (CE '18) | JOSEPH COLONEL (EE '15)

The Cooper Union’s lack of sufficient dorms has been a source of difficulty and inconvenience for underclassmen. Currently, the dorm is primarily occupied by freshmen to facilitate their transition to college life in New York City. Come next year, current freshmen will be forced to move out to make room for next year’s freshmen, leaving these students to face the world of apartment hunting. Because of this evident struggle, the Cooper Union will be offering a new dorm to students.

Controversy has surrounded the construction of these dorms, which will be named University House. Slated to be finished in 2016, these

dorms are being built at the former P.S. 64/El Bohio building located next to Tompkins Square Park between Avenues B and C. P.S. 64 was rescued in the late 1970s due to the work of activist groups Adopt-A-Building and CHARAS, who later named it “El Bohio.” El Bohio served as a cultural center for the East Village, providing studio space and a performance venue for local artists. Icons such as Elizabeth Murray, Andy Warhol, Jean-Michel Basquiat, and Keith Haring all participated in benefits held at the space. Despite the distance from Cooper Union in comparison to the current dormitory, University House will make up for

it in its promised luxurious amenities. The dorm claims it will offer health and fitness centers, game rooms, quiet study lounges, art studios, music practice rooms, terrace areas, and even a café.

Currently, each floor plan dictates that the suite-styled apartments will each house 5-7 people. When the building is finally opened to students, it will house not only students of the Cooper Union but also students of Joffrey Ballet School. Though the project is still in its early stages of development, it is certainly an opportunity to look forward to for current freshmen and sophomores at Cooper Union. ♦



Photo Credit: Artist rendition of a room at University House, university-house.info

MENSCHEL EXHIBITION RETROSPECTIVE

EVAN BURGESS (Arch '15)

Every year, the Menschel Fellowship offers funding to third and fourth year students in order to allow them to pursue creative and personal projects over the summer that would not otherwise be possible. Many students use the money to travel, and often the experience from these trips ties into the larger art, architecture, or engineering practice of those students.

After the trip itself, participants are asked to produce a series of artifacts, images, videos, or other pieces of work that will go on display in an exhibition in the beginning of the spring semester. The 2014-2015 Menschel Exhibition has come to a close on Feb. 14th, representing the end of nearly a full year of work for the participants.

Maja Hjertén-Knutson (A '15), who went to Morocco with Kiwi Nguyen (A '15) to study the tile

patterns used in architecture, reminds me that the project ends up being much larger than just the time spent away from home. From the application process to the exhibition, I have been watching classmates follow through a major project from the planning/pitching phase through the execution, and on to the documentation and presentation.

While these projects often have a strong connection to the studio work of the participants, Maja points out that this is an opportunity to work within the framework of the school, but outside of the walls of the school. Often, the work that they are producing for the exhibition resembles their studio work, but it gains a certain freedom by being completely independent and outside of the view of studio professors.

The exhibition itself, organized

between all of the groups of participating students, is one of the largest collaborative exhibitions that take place at Cooper. Here, the sheer variety of work comes to light, with photographs and models from the Mississippi River, to videos documenting various figures in Ghana, to sections of the fence around Guantanamo making an appearance in the school. As always, the show this year was well advertised and well attended.

The application process for next year’s Menschel Fellowship is now beginning, giving students another chance to participate in what is both a large amount of work, and a unique opportunity to do this work independently and outside of the walls of Cooper. Students can see Prof. Sayres in the HSS office for information on the application process. The deadline is April 1, 2015 at 7 pm. ♦



Photo Credit: Winter Leng (ChE '18)

STUDENT REPRESENTATIVE TO THE BOARD OF TRUSTEES

PRANAV JONEJA (ME '18)

Almost a year and a half has passed since the position of student representative to the Board of Trustees (BoT) was first introduced. The office, held by Devora Najjar (ChE '16) since its inception in 2013, has been the only direct connection between students and the Board. It is believed that the appointment of a student to the Board is an opportunity for student agency in the governance of the school, and as such it is a distinction that the Cooper community holds in high regard.

With Devora’s term as student representative coming to an end next year, the process to select a successor must begin now. As of March 4, the process began with nominating candidates for office. The requirement for nominees are simple:

1. The candidate must be a student available to serve a two year term. In simpler terms, this means the candidate must be a first or second year student in the School of Engineering or Art, or up to a third year student in the School of Architecture.

2. The candidate must collect nominations from 100 students. Of these, at least half (50 students) must be from students outside of the nominee’s academic school.
3. Nominations must be submitted to the Chris Chamberlain, Dean of Students, by March 12. After this deadline, nominations will be collected and counted to select eligible candidates.

The student body will then vote for their candidate of choice online through the Joint Stu-

dent Council’s voting portal. After voting has closed, the three candidates with the highest number of votes will be referred to the Board of Trustees. Out of these three finalists, the Board will vet and select one representative at their own discretion. The new representative will be formally inducted for office in June 2015.

The Cooper Pioneer interviewed Devora Najjar, the current student representative to the Board, to understand her role and responsibilities. According to Devora, the

ideal student representative is a “steward of the students” - a person who upholds the interests of all students, not only from their own school. Furthermore, she stresses that this position is “not about you as individual in the slightest.” It is critical that the student representative be impartial and objective in speaking on behalf of all of his or her constituents. “Nobody keeps telling you to go have one-to-one meetings with members of the administration, faculty, trustees,” says Devora, emphasizing the need for student-led

initiative in this position.

The Board of Trustees is holding a Q&A forum for interested students on March 9 at 8pm in LL101 in the New Academic Building (NAB). All interested students are strongly encouraged to attend.

For more information about the responsibilities of the student representative as well as the election procedure, please visit: <http://cooper.edu/students/student-affairs/student-rep-bot>. ♦



FACES OF COOPER: ROBERT Q. TOPPER, CHEMISTRY

RUCHI PATEL (ChE '18)



Photo Credit: Ruchi Patel (ChE '18)

The Cooper Pioneer recently sat down with chemistry Professor Robert Q. Topper, who teaches Physical Chemistry among other subjects.

The Cooper Pioneer: Where are you from?

Robert Q. Topper: While I was growing up, my family moved several times. I was born in Colorado, but my family moved to North Carolina when I was six weeks old so my father could take a faculty position in music at East Carolina University. After my parents divorced we lived in Missouri, where my mother and stepfather met. We then moved to Florida for a number of years while my stepdad was in the Navy, and then we moved back to Colorado, where I finished high school.

TCP: Can you tell me about your educational and professional background?

RQT: I went to Florida State University for college on a National Merit scholarship, for which I'm very grateful. While I was there I worked for the Math department as a tutor and also helped teach "prep" courses in elementary mathematics. I enjoyed teaching a great deal. In college I could never make up my mind about whether I liked physics or chemistry better, so I ended

up with a double major. In 1990 I went to Yale for a Ph.D. in physical chemistry and focused on molecular dynamics, reaction rates and chaos theory. Then I was a post-doc for two years at the University of Minnesota studying quantum thermodynamics using Feynman path integrals, followed by a year at University of Rhode Island, where we studied order-disorder phase transitions. All of this work used Monte Carlo methods, which I particularly enjoy using. You use random numbers to calculate integrals and sample spaces which may have thousands of variables, building on theorems from probability theory. I then taught at Cooper Union for ten years and also served as the first Campus Safety Coordinator. In 2003, for a number of reasons I left Cooper and took a position as an administrative department chair at Monmouth University. After six years there, in 2008 I was invited to return to Cooper Union - so this is my 17th year of teaching at Cooper, and my 23rd year as a professor.

TCP: When did you first learn about Cooper Union?

RQT: Believe it or not, I first learned about it from an advertisement in the New York Times. In 1993 I was in Rhode Island in the airport waiting for my wife to

pick me up, and I thumbed through the classified ads while I was waiting and saw an ad for a physical chemistry faculty position at Cooper Union.

TCP: What brought you to Cooper Union? When did you start working at Cooper?

RQT: When I read the ad, I thought "They're looking for *me*!" It said something like "Wanted: Assistant Professor of Chemistry; must be able to teach courses in thermodynamics, quantum mechanics and molecular spectroscopy, and direct undergraduate research." A perfect fit! I was looking for a position where I could integrate my interests in teaching and research. Fortunately for me, I have always had wonderful support from my wife, Gayle; she told me to make sure that I overnighted my resume so it would be on their desk the next morning. When I was offered the job, I couldn't believe my luck - the job market was particularly bad for theoretical scientists just then, and I had just landed my dream job.

TCP: What is your role in Cooper? What is your department's role in Cooper?

RQT: My own role involves teaching courses in physical, inorganic and general chemistry and directing un-

dergraduate and graduate students in research. I teach several sections of Physical Principles of Chemistry to the first-years, and I love meeting and working with engineers from all of the different majors. The chemical engineers take a number of chemistry courses beyond the freshman year, and I teach a required course in quantum mechanics and molecular spectroscopy. I also teach advanced elective courses in inorganic and physical chemistry. I generally have about four research students working with me on projects at any given time, all of which are computational or theoretical - our group motto might be, "We never touch a test tube." Most of our research is in the study of nanoparticle growth and formation mechanisms, and we also study structural flexibility in damaged DNA and neurotransmitters - a lot of it involves many-dimensional optimization problems. Sometimes we have to write our own code. I've had students from every engineering discipline work with me on research. I also chair and direct our school's Institutional Review Board, which works to ensure that any human subject research is done in a legal and ethical fashion, as mandated by Federal statutes.

The Chemistry department dates back to the beginning of Cooper Union and we have a long and very proud history. We provide service courses in general chemistry to all of the Engineering degree programs, which we are very happy about. We also have a very strong partnership with the Chemical Engineering department, because we are also responsible for providing the additional chemistry courses that their degree requires. Our faculty are allowed to independently direct master's students in chemical engineering. In the near future we hope to begin offering a degree in chemistry to a small, select number of students who will need to measure up to the same rigorous core of mathematics, physics and chemistry required by our Engineering majors.

TCP: How much do you like your job at Cooper?

RQT: I love it so much that I gave up a five minute commute just so I could come back. It takes me over two hours to come to campus each day, but it's worth it to work with Cooper students and my terrific faculty and staff colleagues. This is a unique, special place and every day is an adventure.

TCP: What advice would you give to Cooper students?

RQT: It's a great privilege to be at Cooper Union, so make the most of it. Make friends, join clubs, participate in student government, hack something, get involved. Try to take opportunities to improve your public speaking skills. Take risks and try new things; this is an ideal environment to learn and grow. Talk to the faculty - we like it, and we don't bite.

TCP: What are some of your hobbies?

RQT: I spend a lot of time with my family and they are my favorite hobby. We love playing board games and video games together. Also our family is very musical; I enjoy singing and playing the guitar. When I have time I help out with projects through our synagogue that benefit our local food shelf and others that benefit seniors in residential centers. I read a lot; lots of very serious books but also lots of comics, graphic novels, that kind of thing. I've also spent time reading, writing and even lecturing about Peter Cooper's life and achievements in engineering, science, education, public works and philanthropy; if you're interested, you can read more at <http://engfac.cooper.edu/topper> under "Projects." ♦