

THE GADFLY

Bundle Up, Moldova • 02
The True Explorer • 05
Facebook and Facades • 06
Student Committee on Instruction • 08

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Photo by Daniela Alvarez

THE STUDENT NEWSPAPER
OF ST. JOHN'S COLLEGE

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Founded in 1980, the *Gadfly* is the student newsmagazine distributed to over 600 students, faculty, and staff of the Annapolis campus.

Opinions expressed within are the sole responsibility of the author(s). The *Gadfly* reserves the right to accept, reject, and edit submissions in any way necessary to publish a professional, informative, and thought-provoking newsmagazine.

The *Gadfly* meets on the Lower Level of the BBC every Sunday at 7pm.

Articles should be submitted by Friday at 11:59 PM to sjca.gadfly@gmail.com.

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Bundle Up, Moldova

Allison Tretina A'15

The Republic of Moldova is making its first steps to reduce its dependence on Russia. As of late August, a new gas interconnector pipeline was installed between eastern Romanian city Iasi and west Moldovan district Ungheni. Victoria Bucatru, a Moldovan expert of foreign policy, told the press, "The pipeline will allow Moldova to open an alternative supply route and thus avoid any new crisis such as in 2009, when [Russia's] Gazprom cut off natural gas supplies to many European countries due to its disagreements with Ukraine."

Previous to the installation, Moldova imported all of its gas exclusively from Russia. The 43 km (27 miles) Iasi-Ungheni pipeline will supply 5 percent of Moldova's gas needs, according to the Balkan Insight reports. 5 percent is a start, but a very small one. If Russia were to cut off their gas supply this winter, Moldova would be in a gridlock.

It is a high possibility that Russia will leave Moldova in the cold. *Reuters* pointed out, "Moldova's pro-Western prime minister, Iurie Leancă, signed up to closer ties with the EU earlier this year, defying warnings from Russia and joining ex-Soviet peers Ukraine and Georgia in pulling away from Moscow." In other words, the deliberate act of installing the pipeline will make it more likely that Russia will retaliate.

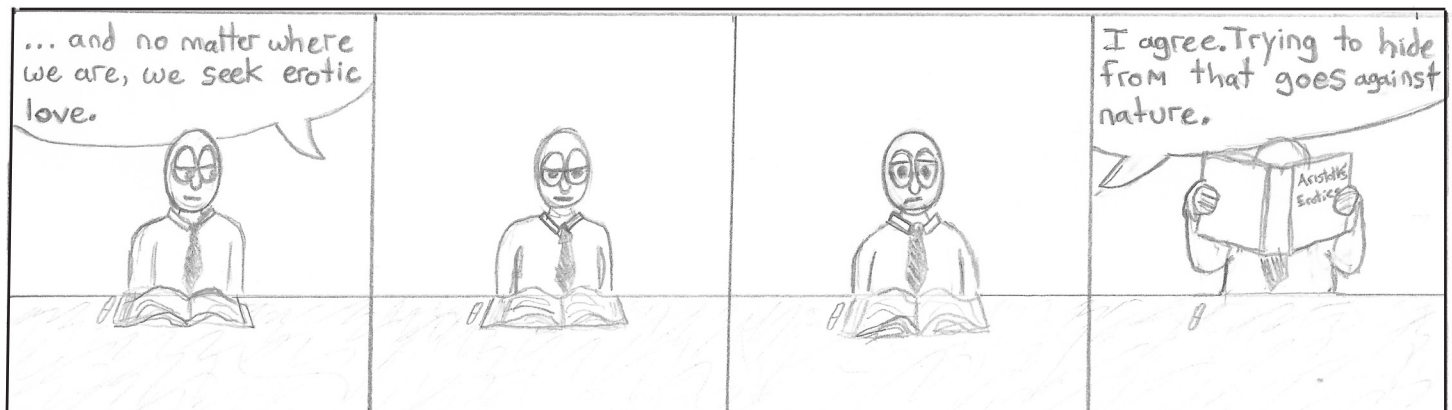
This wouldn't be the first time this could happen, either. "Russian gas flows to Ukraine have been halted three times in the past decade due to price disputes," *Reuters* explained, "and flows to the EU were disrupted in 2006 and 2009 after Ukraine took some of the gas intended for the block to meet its own winter demand."

Looking at Russia's track record, it is surprising that Moldova, and the other Eastern European countries, have not acted sooner. Emily Stromquist, a Eurasian analyst in London, told *Bloomberg*, "Until recently the relations with Russia have generally been good, so perhaps there was no feeling of urgency to build quickly." But three shortages in ten years are not "generally good." It is never good for a country to be entirely dependent on another country for its energy needs.

Had Moldova immediately invested in alternative gas supplies after their third gas shortage in 2009, Moldova may have been ready, or at least more ready, this winter for another possible gas shortage. If the tension between Moscow and Kiev does not subside, and if the OAO Gazprom fails to restart supplying natural gas to its western neighbors, then Moldova better bundle up. It is going to be a cold winter. ♦

Making Awkward Eye Contact In Seminar

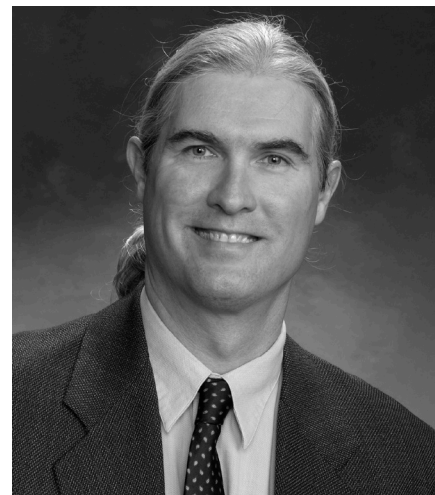
Sebastian Barajas A'17



Alumni Profile:

John Bush, A'84

As an architect, John Bush uses his years of study at St. John's at his mighty drafting table, where he creates the buildings of tomorrow.



What is your current job?

I am a staff architect for Virginia Tech. I work in the Office of University Planning, a division of Facilities in the Administrative Services part of the university. We plan for future growth in terms of land use, and we plan for new buildings including siting and programming. In addition, we review building design for aesthetic coordination with campus design guidelines and make submittals to the Board of Visitors and other state agencies like the department of Historic Resources and the Art and Architecture Review Board. I also assist with LEED submittals to the USGBC as Virginia state buildings are mandated by law to be rated LEED silver or higher.

In addition, I serve as an official for the Town of Blacksburg. I was elected for my second term in November of 2011.

Did you attend other schools after St. John's?

Yes, I attended Virginia Tech from 1988-1992 in the School of Architecture and Urban Planning and received a Masters in Architecture.

Did you know what you wanted to do while attending St. John's?

No, I did not. I worked on construction crews during the summers in Santa Fe and, when I moved back east after graduating I continued to work in the housing market as a frame and trim carpenter. After 4 years of this, I decided to pursue a graduate degree and chose Architecture as the profession and field in which to study. It turned out to be a good choice and one I was well suited for.

Did St. John's help prepare you for work in the field?

Yes, I believe it did prepare me well for a career in architecture. I was admitted to the Virginia Tech 3 1/2 year graduate program solely on the basis of my St. John's degree by the then-head of the graduate program. Having studied the "Great Books" and being grounded in western thought gave me a clear advantage in pursuing an education in the visual arts that concentrated on technological and aesthetic preparation with a background in philosophy and math. Architecture is largely a self-motivated discipline and a Johnnie background is good in that regard. You get out of it what you put into it, and the field is very large so there are many paths to take and many interests to pursue.

What didn't St. John's prepare you for?

Right out of school in 1984 it was difficult to find meaningful work and employment. I went back to the construction

trades in order to provide for myself and my new family. In some ways, SJC doesn't prepare you for so called "real-world" situations and for immediate employment that has an immediate relationship to the 4 years reading and discussing the Great Books. You think perhaps naively that people and prospective employers would care about that experience, and when largely they do not, that can be difficult to accept, especially if you need a job as I did. You have to let all that go and realize that the benefits of this kind of education are much longer lasting and far reaching than what might be self-evident as a young twenty-something. But there are people who know about the Program and do appreciate it.

Any specific disadvantages to a St. John's background?

This is hard for me to say. I think a broad and general education is best especially for young people. There is plenty of time to learn a specific skill in technology or a trade and to narrow ones choices in graduate school. I have always preferred to be a generalist and fortunately architecture is also a generalist discipline. After SJC, all the tools are there for inquiry at all levels and critical reading and thinking skills can lead in almost any direction professionally.

Can you describe a general track someone from St. John's might take to get into a career in this field?

The typical start to becoming a licensed architect is to get a degree from an accredited 5 year undergraduate program or from a 3 1/2 year graduate program. The Virginia Tech 3 1/2 year Master's program is unique in the sense that it allows graduate students that have undergraduate degrees in other fields beside architecture join a program that results in a first professional master's degree. (Some undergraduate architecture students go on to receive a master's degree as well, but this is not the traditional track.) Most architecture graduates follow school with an internship in an architect's office learning the rigors of preparing documents for bid that result in buildings getting built. Usually three years of internship with the proper documentation allows one to begin to sit for the Architecture Registration Exam. This exam is actually a series of nine exams which have to be completed in an additional three year window. Once all the exams have been passed one becomes licensed to practice architecture in that particular state. With additional paperwork to the appropriate organizations one can receive reciprocal licenses to practice in other states. Some architecture graduates follow different paths and some of these become licensed and some do not, taking their new way of thinking and experiencing the world in

Continued On Pg. 4

many varied approaches and opportunities. An education in architecture definitely changes how one sees things.

Any general advice, especially for an upperclassman who is interested in this field but is not quite sure what to do?

Maybe the best thing to do is to start reading some architecture classics and perhaps keep a notebook and start sketching what you see around you and begin to train yourself to think with your eyes and your pen. If these activities are enjoyable to you maybe look at some firms in your area, maybe your hometown and see if you can intern a summer with them to see how an office runs and to see if the work continues to be interesting. Or perhaps begin working as I did in the construction trades. There are other non-traditional ways of entering the field, like the building trades or in the learning of the properties of different materials, like wood, metal or plastics. Some of the great modernists like Jorn Utzon and Mies Van der Rohe had prior training in boat building and masonry. Computer technology now plays a large role in the traditional architecture office and so interests in communication systems and a technological programs and GIS could also be helpful. Generally though I would say you have to appreciate material and the techne of changing matter into works of art and perhaps even beauty.

How did you market yourself with a St. John's degree?

In the beginning it was hard if not impossible to market the SJC degree. It did not immediately help me find work. Where it did come into play is when I applied to graduate school and the professor in charge of Virginia Tech's graduate program in Architecture at the time knew of St. John's College and that alone got me an interview and even though I did not have a portfolio of work to show (which is standard in art and architecture programs). I was admitted solely on the basis of my SJC Bachelor's degree. After Architecture school when I was applying again for an internship the master's degree along with the SJC degree was very beneficial. I think it helped to demonstrate the unique background I had in the visual arts but also in presentation skills and verbal critique.

How would you characterize your field as a whole? Is it accessible to newcomers or difficult to enter? Stable or fluid? Etc.

The 2008 financial crash and the resulting crash of the residential construction market and the overall economy has really placed architecture firms and graduating architects in a difficult environment. Right now the economy appears to be getting better but it is a slow process. The bigger firms in the bigger cities if they survived the last four years are seeing more work and the economic conditions pick up somewhat, but smaller communities and more rural areas are still facing a tough time. Because so much of architecture, design and construction work is tied to the overall health of the economy, it is pretty easy to tell when those times are good and when they are not so good in the architecture community. We are in a not-so-good time right now, so it's a good time to be in school, but generally it looks to my eye like things are picking up and that the next few years will be better than the last few. If you have a strong educational background (which Johnnies do), good skills in presentation, computer fluency, strong verbal skills and are self-motivated, there will always be a

opportunities for a person that works hard and has a strong work ethic. It is a tough field though, and a long path from school to licensure, and it takes determination and self-reliance to see it through to the profession.

What was your senior essay topic?

My senior essay was on Aristotle's *Nicomachean Ethics* and Twain's *Huck Finn*. It wasn't a good paper but I loved the Greeks and much preferred Aristotle's practical earthbound inquiry that supposedly leads to happiness to Plato's insistence of a good thing behind what is visible. And of course Twain is possibly America's greatest moralist and writer, and I wanted to make a fairly preposterous link between Aristotle and Twain saying something about how we should live our lives. I realized later that I was trying to say something about happiness and the pursuit that Jefferson says we were born to, but at the time I was inarticulate to do a very good job of it.

What is your favorite book on the Program?

It is hard for me to pick a favorite book. I have always loved literature, history, philosophy and the Ancient Greeks, but my math background in Kentucky public schools was not very good and the math program is what really impressed me. I really enjoyed Euclid's *Elements*, and I will never forget the feeling I had learning geometry with Tutor Martin and how much fun it was to draw and think mathematically. I also was able to take a preceptorial in my junior year with Mr. Petersen on Thucydides' *History* and that was immensely satisfying and enlightening, but my favorite book is probably the *Odyssey* and I try to re-read it as often as I can.

Do you find that you lead a philosophical life?

Yes, I am naturally wired that way, and I still compare and think about the books we read and relate them to events in our current political times and to present situations both in my own experiences and in my professional work.



illustration by Lyra Muerer

The True Explorer

Jerry Januszewski Counselor

It may seem trite to say life is a journey, but few metaphors are more apt for describing the human experience. Personal insight and awareness often have the same gradual, unfolding nature that mirrors the action of putting one foot in front of the other. Moment to moment we are keenly conscious about the desire to be somewhere else, to know what we don't know, or to acquire something still outside of our grasp. Far from being trite, life as a journey resonates with meaning and is useful for facing life's difficulties. Humans respond to the call for a better life by moving from point A to point B, physically, mentally, or spiritually.

The impulse to physically wander is inherited from our ancient vegetarian ancestors, and the need to settle down in a base, cave, den, or tribal territory is characteristic of carnivores. So says the legendary explorer Bruce Chatwin in his intriguing collection of essays, *The Anatomy of Restlessness*. The omnivorous design of our teeth and the versatile structure of the human body hint at the acceptability of both lifestyles: roaming the land in search of sustenance or staying put in one place to construct agreeable ways to cook and eat. Even for many today, nothing says home like a great kitchen and dinner table.

So we have competing desires: the urge to travel, to move, to be curious, as well as the longing to nest and rest. The moment we answer the call to explore we've also sown seeds for yearning for home. There's beauty in that tension. To wander without a literal or figurative sense of home is to be lost, to be pushed without the stabilizing pull. The explorer may physically go in one direction, but psychologically he desires a round trip; to come back to his familiar self, but with something new added. There is a heroic departure from the norm and a return, hopefully with new gifts to offer, leading to a new and better normal.

Historically, Chatwin reports, the nomad doesn't wander aimlessly, but follows known paths of migration; the geographic familiarity perhaps compensating for the absence of a fixed address. You might say the nomad is uncivilized, if we accept Chatwin's definition of civilized as "living in cities." The true nomad or explorer has something of a disruptive influence on civil society. His path goes outside the boundaries, but his motives are constructive. His movement seeks provision or insight or economic gain, not escape.

Chatwin cites Herodotus, himself an exile and a traveler with boundless curiosity. In *The History Book IV* we find a fascinating description of the advantages of nomadic life. Facing military aggression by the Persian King Darius, the nomadic Scythians went on the move. But what appeared as retreat to Darius was nothing of the sort. The Scythians merely acted in accord with their accustomed lifestyle. In frustration, Darius sent a message to the Scythian King: "Why do you always run away?" The Scythian King replied, "I have never fled for fear of any man, nor do I now flee from you. If you really want a fight, find the graves of our fathers and then you'll see whether we'll fight. As for your boast that you are my master, go and cry." Soon enough Darius was the one retreating.

Nomadic traditions are highly spiritual; having given rise to the great world religions. Abraham, Moses, Jesus, Buddha,

Mohammed—all nomads. Chatwin, an agnostic, writes, "No great transcendental faith has ever been born of an Age of Reason. Civilization is its own religion." Chatwin proposes, however, that the estrangement of physical movement from spiritual growth in civilization contributes to a stagnation we seek to recapture in focused migrations. The Muslim Hajj and other pilgrimages endeavor to balance the loss of human movement inherent to civilization.

Chatwin came of age in the 1960s. In many ways he embodied the daring and progressive lifestyle that typified those times. But he was primarily a freethinking intellectual who didn't hesitate to call out the posers among his contemporaries. Chatwin disdained the recreational drug use associated with that freethinking age, regarding it not as counter-cultural but as counterfeit and still bound by middle-class material values. This didn't endear him to "the cool kids" of his time. He saw his own generation as profoundly ignorant of the worth of travel and exploration as purposeful activities, ways to test one's imagination and develop skills, not as excuses for idleness and indulgence. But since humans must journey, it didn't surprise him that people were susceptible to seeking inferior journeys of the chemical kind.

Chatwin disrupted his society and spurred his own growth by moving his body. He believed walking was best because, taking his cue

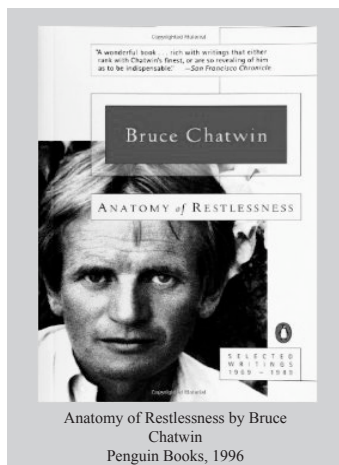
from nature, the best things in life are accomplished slowly and deliberately. Writing in 1970 he said, "All our activities are linked to the idea of journeys.... our brains have an information system giving us our orders for the road, and that here lie the mainsprings of our restlessness. At an early stage man found that he could spill out all this information in one go, by tampering with the chemistry of the brain. He could fly off on an illusory journey or an imaginary ascent.... but true wanderers rarely fell prey to this illusion. Drugs are for people who have forgotten how to walk."

The horizon of the inner journey is where Chatwin ultimately set his sights. His concept of adventure had little to do with adrenaline-pumping risks or gawking at the exotic, though he did take risks and he did witness the exotic. His concept of adventure involved responding to restlessness without surrender to rootlessness. There was boldness and maybe even impulsivity to his adventures. He stepped outside of his known territory but not outside of his consciousness.

His first and perhaps best-known book, *In Patagonia*, came about because of a conversation with an elderly friend. The friend said, "I'm too old to go to Patagonia now. Please go for me!" Chatwin answered the call and left immediately, famously sending this succinct message of resignation to his employer: "Have gone to Patagonia."

If life is a journey then to sojourn well we must be in it for the long term and be willing to go beyond known territory. There will be long stretches where nothing seems to be happening. The true explorer is patient and makes peace with the step-by-step nature of the process. I admire the abandon with which Bruce Chatwin accepted those facts.

Do you desire to be a lifelong learner? Think of learning as a long walk. Better yet, take a long walk and explore. You get to know things better when they go by slow. ♦



Facebook and Facades

Ripley Stroud

A'17

While letting my mind rot and be inundated with carefully chosen details of other people's lives, I happened upon my "About Me" section of Facebook. In a fit of self-obsessed examination, I scrolled through potential edits (how best can I portray myself?) before noticing a new field—an option to select your own personal pronoun.

I certainly appreciate and understand the advantages this offers. It must be helpful to provide a clear-cut request for the terms that you feel are most accurate for you. It is amazing that society has reached a far enough point to accept the queer community, so far that the largest social network in the world begins to offer assistance.

That is all well and good, but it got me thinking about the section in general. It is one that I have always struggled with, to be sure. How can one—in a text box with a word limit—possibly explain themselves to the public accurately and efficiently, let alone ethically? I typically refrain from snarky comments, and leave it at that, as I think there is something reprehensible about demanding that people see you a certain way.

Unfortunately, it seems that with the advent of the Internet in our social interactions comes the ability and desire to make said demand. It's standard and appropriate to list your gender, your name, your preferred personal pronoun. These are basic elements of how you interact with your social circles, so it seems to follow that it should be a part of social media. It starts to become a problem, though, when you are asked

to tell people how they ought to think of you. I would love to believe that that attractive young man was as deep as his selected Morrissey lyric would suggest, but the assumption would be based on practically nothing.

Social media's request for you to label things beyond the basic attributes of your being and its ability to present you however you may like demonstrates the Western world's erotic fascination with consumerism and marketing. Plenty of citizens find issue with corporations being treated as people, but it seems to me that people feeling the need to treat

themselves like corporations is what's truly sickening.

I am not a Luddite by any means; I adore technology's place in my life and could not really imagine my world without it. I disagree with the claim

I would love to believe that that attractive young man was as deep as his selected Morrissey lyric would suggest, but the assumption would be based on practically nothing.

that the modern age does not offer any advantages, but I could not honestly say that there are not numerous, serious effects that it has on how we interact with one another today.

Perhaps this is why there's been a recent flurry of deactivations from Facebook. I have yet to delete mine. I have too many excuses: I want to keep in contact with old friends; to look at pictures of Morrissey Boy; to take pride in my sporadic status updates; and gain false affirmation in the number of lethargically-given thumbs-ups.

But those of sounder mind and greater reason than I are taking some sort of stand, and that gives me hope for my generation's reception of the double-edged sword that is social media. ♦



Where's Waldo?

Alina Myers

A'17

The doorbell rings and Waldo swirls the last of the Dalwhinnie in the bottom of his scotch glass around before tossing it back and setting it down on the rich mahogany table, which was heavily stained from his inability to locate a coaster. He straightens out his shirt, and grabs his hat, screwing on his friendliest smile like a rusty bolt. Fans rarely stopped by these days. His books simply could not compete with iPods and Xboxes, and he hadn't had any press since the media gulag two years ago that publicly vivisectioned his relationship with Carmen.

He didn't want to answer the door. People came to call less frequently with each passing year. It was quite well-known that Waldo wasn't too keen on being found these days. He wanted to be left alone. He had no desire to sign autographs or take pictures. He was perfectly content with his life of solitude.

And yet, he found himself in the foyer, just a few short feet away from the front door. He starts when the bell rings again. Abruptly, Waldo heads back to his recliner, shaking his head, determined to ignore the chime of the doorbell as it echoes through the forlorn apartment. Eager to return to Judge Judy, he bangs his shin into one of the odd assortment of wooden chairs clustered around his dining table. Waldo swears under his breath, rubbing his leg. He stands back up abruptly, his eyes riveted to the maroon cardigan draped over the chair. Closing his eyes, he fights to exorcise the scent of vanilla with just a hint of raspberry permeating his senses. It was her sweater. The only sign remaining in the dark apartment that indicated she was ever there at all. He really should throw it out. He will. Later.

The doorbell rings again, pulling him out of this reverie. He glances back at the door and pushes his glasses further up the bridge of his nose, squinting in the gloom. They're persistent, he'll give them that. ♦

The Pineapple on College Ave

Thoughts inspired by the the USNA Halloween concert

Sebastian Barajas A'17

I had to revise my view of the Naval Academy after its Halloween concert on Saturday night. In a single two-hour period, I heard an organ rendition of the *Sponge Bob* theme song, watched a creative retelling of the final light saber duel in *Return of the Jedi* (Darth Vader gets frustrated and storms off, leaving Luke to run around waving his light saber in celebration), cringed through an assortment of politically questionable cultural cameos (think Mexicans in sombreros dancing the Mexican Hat Dance), and finally listened with solemn respect to a reminder about the realities of war and the power of God, ending in a heart-shivering rendition of *Battle Hymn of the Republic*.

The Naval Academy's message was that we are only able to celebrate *Sponge Bob*—and all such beloved TV and film characters—because of the sacrifices made by the men and women of the armed forces. At first, it may seem frivolous to suggest that our troops are fighting and dying to protect *Sponge Bob*, but bear in mind that only a safe and healthy country could foster such a carefree character. *Sponge Bob* in North Korea, for example, would wither and die, or be perverted into a squishy talking propaganda billboard for children.

I single out *Sponge Bob* because, despite repeated reminders to myself about the importance of a St. John's education, I still sometimes think of this college as a happy sponge living in a pineapple, while rough graduates of the school of violence-visiting keep watch. Yet the concert was so wonderfully strange, it made me rethink this impression. I began to wish there were some way to turn the entire Naval Academy into a Seminar reading, so that we could discuss it. I wanted to ask, "How can they already know that they want a military life? Surely, such a decision should require years—if not a lifetime—of thought and study before the matter became clear?"

To this, a Middie might fairly reply, "Sure, okay. You can sit there and *think* about it. And while you're sitting there *thinking*, my buddies and I are gonna be out there actually *sacrificing* ourselves, *contributing* to the good."

But this view of "sacrificing" and "contributing" is very narrow. For one thing, while the military sacrifice (casualties) is easy to demonstrate, its contributions (especially in recent years) are not so easy to quantify. Each year, it is more difficult for civilians to become excited about its accomplishments in some remote country in which we have only a secondary interest. Of course, I am not suggesting that the military is no longer doing us any good, but rather that the benefit derived from its actions is no longer obvi-

ous. Tracing the casualties of a specific operation back to the greater good of our country often requires many layers of explanation.

St. John's, on the other hand, is doubly cursed. We demonstrate neither an immediately apparent sacrifice nor an immediately apparent benefit to society. This is why the decision to be a Johnnie is so difficult to justify to others. We do not even seem to strain ourselves, let alone risk death and disfigurement. But how could it not be a sacrifice to read through the entire 150-plus-book Program in four years, paying steep tuition, putting up with scoffing and belittlement from the Calliclean masses, and knowing that we will graduate without any particular vocational training?

Furthermore, it isn't as though a St. John's-like education has contributed nothing concrete to the world; for although the Naval Academy is a fine institution, I doubt very much whether it fosters the kind of inquiry that could invent democracy or discover the laws of relativity.

Both St. John's and the Naval Academy seem to be homes for jobs that most people take for granted. We assume that there will always be soldiers performing deeds overseas, and that there will always be a few nutty people who muck about with arcane knowledge. Neither task is particularly appealing to the everyman, but both are necessary to create a world in which *Sponge Bob* can thrive. ♦



UPCOMING EVENTS

Tuesday 11/04

Kunai Netball
4:00 PM

Fencing

4:00 PM

Wednesday 11/05

St. John's Chorus, Great Hall
7:00 PM

Friday 11/07

Fencing
6:00 PM

Lecture: "Refugee Children of
the Greek Civil War," by
Mr. Loring Danforth,
FSK Auditorium
8:00 PM

Sunday 11/09

Soccer
H vs. G, 1:00 PM
D vs. S, 2:45 PM

Gadfly Meeting,
Lower level of the BBC
7 PM

If you would like to see your
event on the weekly schedule,
please email [sjca.gadfly@
gmail.com](mailto:sjca.gadfly@gmail.com).



THE STUDENT COMMITTEE ON INSTRUCTION: Examining Demonstrations

Henry Hirsch A'15

On Thursday, October 23rd, the SCI held a forum at 11:45 in the Private Dining Hall to discuss the role of mathematical demonstrations at the College. Why do we demonstrate propositions? What is the proper role of the student demonstrating? What are the responsibilities of the students in the class who are not demonstrating?

Many of the students who were present at the forum agreed that the purpose of demonstrating propositions is unclear. Theoretically, all the students have read the proposition before coming to class and have worked through the mathematical demonstration for themselves. What then do they gain by having one of their peers demonstrate the same proposition to them in class?

Some students argued that demonstrating propositions in class is for the benefit of the demonstrator rather than the observers. They felt that demonstrating a proposition was an exercise in teaching and communication. There is certainly a rhetorical aspect of demonstrations. Being able to demonstrate the proposition to others is integral to understanding it. One student believed that we think differently about propositions that we are reading when we know that we must later demonstrate them to others.

Students had different opinions regarding the roles of the demonstrator and the observers. Some felt that the demonstrator should have total mastery of the proposition and that the observers should be completely silent except when they were unable to follow a particular step in the proposition. Others believed that the demonstrator was not required to have complete competence with the proposition, and that it was helpful for the observers to participate in a collaborative manner. One student pointed out that the nature of these theoretical roles are often determined by the particular preferences of the class' tutor. Nearly all of the students present thought that having the tutor assign propositions to particular individuals in advance

encouraged passivity in the students not demonstrating.

Those present at the forum reached a general consensus that it was not necessary for the demonstrator to be able to demonstrate every logical step in the proposition perfectly. However, at the very least, the demonstrator should be able to break the proposition down into five or six major conceptual steps.

Understanding these steps and communicating them to the class fosters grounded, yet philosophic discussion without getting bogged down in every technical

detail. Because of this, the students thought it permissible to bring notes to the board as long as they are referenced infrequently. All of those present at the forum also agreed that the observers have an academic duty to

ask questions whenever a step in a proposition is unclear to them.

The students had several ideas about how to make demonstrating a positive experience. They agreed that when demonstrating, it is good to assign different letters to the figures than letters used in the original text. This inhibits rote memorization of the proposition. They also stressed the importance of key relations, as well as the "given" and the "to prove" on the board to serve as reference points throughout the demonstration. However, they agreed that having too many details present on the blackboard could be stifling.

One student also suggested having a guide on how to approach Euclid available for freshmen in the library that could be assigned by tutors as optional reading. Another student suggested that freshmen be assigned basic Euclid propositions from givens without using the *Elements*. For example, they could attempt to prove some of the basic propositions in the *Bones* from the givens contained in it. This would serve to develop mathematical intuition and would make demonstrations more dynamic activities. These types of demonstrations could even be assigned in the place of papers. ♦

“Many of the students who were present at the forum agreed that the purpose of demonstrating propositions is unclear.”