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LETTER TO THE COMMUNITY

MALCOLM DELL (ME '14)

As many of you already know, it was discovered on Monday, October 7th that the heated gardens on the roof of the foundation building were vandalized. The details concerning the extent of the vandalism have not yet been released to the public; however, we do know that more than half of the plants were torn from their beds and the remaining root systems were severely damaged. Soil was shoveled out and used to write “Garden of the Union”. The student built, thermally insulated beds were also damaged. This project represents a concerted seven-year effort by nearly 50 students both graduate and undergraduate, all of whom were working with Professor Dell. Students have worked on the heated gardens in Iceland for credit under the summer study-abroad program, which will be offered again in the summer of 2014. The student who was affected the most was William Foley, a Master’s Thesis candidate. He had been caring for these plants for a year under the advisement of Professor Dell and Professor Wei. William was trying to prove that there were other plant varieties than those previously tested which would be able to survive and produce crops in the winter. This would help to prove that the growing season can be year long. He was also investigating automated heating and irrigation systems. William Foley’s thesis and graduation have now been delayed for a year.

There are currently two other heated garden locations, one at the Agricultural University of Iceland and the other is the Keilir Institute of Technology, both of which are located in Iceland. These experimental gardens utilize waste steam to heat the soil and promote plant growth. There is an average increase of 20% in plant growth and flowers can bloom in the snow. These gardens allow for crops to yield in cold-weather conditions which were previously considered inhospitable to many plants. In Iceland there are banana trees and an oak tree being grown outside, uncovered, and this summer there were tomatoes, zucchini, pea plants, and celery. This new agricultural technology offers a more economically profitable method of growing plants in prohibitively cold weather conditions, eliminating the need for green houses for at least a majority of the plant varieties which were tested. Sustainability is also addressed by utilizing waste-steam heat. In New York City alone, if this technology were to be implemented on the roofs of 30% of Consolidated Edison’s steam customers it would save more than 3 million cubic meters of drinking water per year. The drinking water would otherwise be used to cool the steam before it is released to the environment. This work has been recognized by ASME, the Geothermal Resources Council and various other organizations and periodicals. The project was at a critical point where press coverage was increasing and commercial applications were being negotiated, all of which would have benefited our school.

Professor Dell has discussed rebuilding the gardens with members of the student body from any of the three schools and is thankful for the support he has received. Cooper alum Gene Tabach, who had also worked on the heated-garden project, setup an Indiegogo donation page to help the project get up and running again (<http://igg.me/at/CUgardens>). The administration has been aiding in resolving the issue and discovering the culprit(s). No other details are available at this time.

- Malcolm Dell (ME '14)



Photo Credit: Vincent Wai Him Hui (Arch '15)

URBAN GUERRILLA WARFARE LECTURE

ANAMIKA SINGH (ART '17)

Our perception of warfare is a result of the mass media culture we dwell in. Within the realms of many of our imaginations, warfare continues to exist in the rugged terrains of war torn countries. However, with the urbanization of the world increasing at unprecedented rates, warfare is in a continual process of evolution.

On Thursday, October 3 the Cooper Union was privileged to host David Kilcullen, a leading expert on Modern Warfare and author of *Out of the Mountains: The Coming Age of the Urban Guerilla*. Among an intimate audience in the Great Hall David Kilcullen introduced his new book and began his talk with a brief outline of *Out of the Mountains*. Kilcullen opened with an account of his experience in Afghanistan nearly four years ago when a group he was travelling with was ambushed midday in a remote location.

While Kilcullen’s group mates attributed the attack to the Taliban, Kilcullen had alternative ideas suggesting that the ambush was not necessarily conducted by the Taliban. This event saw Kilcullen begin to realize the oversimplification of complex conflicts, especially through spectator perspective. Through this experience Kilcullen realized that a new set of ideas were needed to understand the paradigm shift occurring in current warfare and future conflicts. In regards to this new age of warfare Kilcullen posited that “as Afghanistan and Iraq come to an end, [we will] see a high level of operational continuity but a very strong degree of environmental discontinuity.”

As David Kilcullen continued to speak he provided strong facts to accompany his theories and analysis. Kilcullen soon proceeded to create a verbal visualization of the

upcoming generation in which warfare and conflict will be effectively different from that of the past decade or so. While previously common military action involved hunting armed non-state groups in unoccupied and remote terrains, current and future action has shifted towards “urban fighting.” With this information Kilcullen outlined the four major trends that are beginning to shape the future environment of modern warfare and conflict: Population growth, Urbanization, Coastal Growth and Digital Connectivity. As the global population sees accelerated increase, urbanization grows. The global phenomenon of the migration of rural populations to urban areas contributes extensively to these factors. From Syria to Mumbai, Kilcullen touched upon numerous examples in order to further illustrate how these four trends are affecting warfare and conflict. However, as urbanization quickly manifests, local insight will play a larger role within conflicts as many cities are created through socio-economic variables including the

influence of non-state groups, drug cartels etc.

Kilcullen also mentioned the advent of Virtual space, a new kind of “space” to be kept in mind going forward. As digital connectivity grows, access to information and global communication also creates a whole new area to be considered in future conflicts.

As David Kilcullen finished his talk, members of the audience were given the opportunity to ask questions and the floor was thrown to open discussion. One audience member asked about the preparedness of American cities to cope with conflicts to which Kilcullen reassuringly responded that we live in perhaps one of the most prepared and safest cities in the world. Kilcullen responded to each question with extensive detail and offered his own opinions as well as stating clearly where he could not answer. Afterward audience members were given the opportunity to buy his new book and indulge further. ♦

THE RESPONSIBILITY TO PROTECT

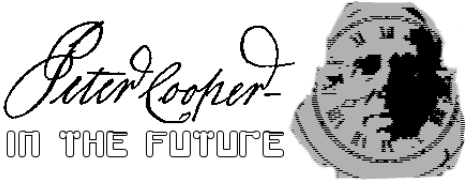
JOSEPH T. COLONEL (EE '15)

On Sunday, September 29 the Edgar M. Bronfman Center for Jewish Student Life at NYU hosted a talk in the Great Hall to coincide with the 68th General Assembly of the UN. At the General Assembly, 154 states in attendance mentioned the events that transpired in Syria this past August, with several states urging the need for accountability for the use of

chemical weapons. Accordingly, the talk in the Great Hall focused on an easily posed yet highly contentious question: Do the strong have an obligation to protect the weak?

The full title of the talk points to the specifics of the discussion: “A Conversation with

(continued on back)



JAKE POTTER (ME '16)

EPISODE EIGHT



(continued from front)

Paul Kagame and Elie Wiesel – Genocide: Do the strong have an obligation to protect the weak?” Sheldon Adelson gave opening remarks, touching upon the importance of remembering those who died in the Holocaust during World War II, the events of the Rwandan genocide, and his ongoing work with Birthright Israel. Upon concluding, Adelson introduced the moderator of the night’s discussion Rabbi Shmuley Boteach.

Rabbi Shmuley, “America’s Rabbi” according to his website (thisworld.us), began the talk by declaring that “combating genocide is the foremost humanitarian obligation of our time” regardless of one’s religious beliefs. Rabbi Shmuley then introduced Nobel Peace Laureate Elie Wiesel, who detailed his experiences as a prisoner of Auschwitz in his book Night, and Paul Kagame, the current president of Rwanda who led the military force that stopped the 1993 genocide in Rwanda.

The bombastic and animated Rabbi Shmuley served as a foil to the soft spoken Elie Wiesel and precise President Kagame, often delivering his questions (and tangents to those questions) in a manner evocative of President Obama’s 2008 campaign rhetoric. While Rabbi Shmuley made no claims of impartiality (in fact he stated outright that he would not act as an unbiased moderator), remarks made suggesting that “Rwandans are the Jews of Africa” and “How can I not hate evil?” felt like an unnecessary deviation from the topic of discussion and seemed like an attempt to elicit quotes from Wiesel and Kagame to present to the UN General Assembly.

Nevertheless, Wiesel’s subdued charm and authenticity combined with Kagame’s

measured and concise responses proved to level Rabbi Shmuley’s dynamism and often provided beautiful insights to the human condition and how to approach situations like those that occurred in Syria. For example Kagame, in response to the question of what action should be taken in Syria said, “The situation is very complex. Poison gas should not be used against anyone. But we need to deal with the world that we live in. [...] There has to be accountability, but this must be clarified and based on facts.” Responding later in the talk to a question concerning the need to bear witness to history, Wiesel suggested that the existence of Holocaust deniers stems not from malice but rather from the fact that “it is easier to believe that it didn’t happen; the event was so uniquely unique [...]”

“Poison gas should not be used against anyone. But we need to deal with the world that we live in.”

Rabbi Shmuley’s last question of the night, directed at Wiesel, asked why should we not hate evil. Wiesel responded “I don’t believe in hatred. Hatred is too easy. [...] Hatred has a dynamic. Once someone starts hating, they do not stop. [...] Once you say hatred is not the answer, then, what is the answer? And then I say, ok, let’s go and study.”

The evening concluded with closing remarks from Michael Steinhardt, founder of Birthright Israel, and a brief celebration of Wiesel’s 85th birthday. ♦

[1] <http://www.globalr2p.org/media/files/2013-ga-quotes-summary-1.pdf> (shortened: goo.gl/jNy276)

FREEDOM CONCERT

CHAE JEONG (ChE ‘16)

On October 10, over a hundred Cooper students joined in on a fight for justice through the Freedom Concert. The Freedom Concert was the last of a chain of events that identified a campaign called “Price of Life” during the first two weeks of October.

Price of Life is a faith-inspired but not faith-required campaign that happened within several campuses throughout New York City in hopes of raising awareness and fundraising to fight human trafficking. From chain tattoos to scandalous posters that read “Sex Slaves for Sale” to t-shirts that were stamped “Abolitionist”, members of the student body worked to spread the word about modern-day slavery in the very city that they lived in.

“members of the student body worked to spread the word about modern-day slavery in the very city that they lived in”

The Cooper community was encouraged to come to events such as the screening of a film about sex and money, a talk about how pornography effects the human brain, a culture night where a trafficked victim shared her story, and, of course, a concert to celebrate hope and the coming of freedom.

The Freedom Concert consisted of acts from nearly all of the performing groups within Cooper –Ballroom Dance Club, Coopernova, Coopertones, CU Breakdance, Chinese Yo-Yo, Poco a Poco, and CU Gospel Choir –and several individual acts from

students and staff –instrumental and vocal duets as well as a piano performance by Professor Daniel Lepek. In addition, Janie Chu, a musician who composes music to abolish modern-day slavery, played several pieces and Greg Jao, the director of InterVarsity Christian Fellowship in the New York and New Jersey, spoke about the Price of Life campaign.

In addition to the acts, other groups of students involved in SWE, Zeta Psi, ESC, Culinary Club, Confetti, and Origami Club contributed to the concert as well. From performing to ushering to making crafts to sell, the whole Cooper community contributed to this citywide campaign.

“Price of Life is a faith-inspired but not faith-required”

As the two-week campaign drew to a close, Price of Life held a citywide event called the Freedom Festival, where churches, campuses, and other organizations came together for a final push to fight human-trafficking.

All money raised during the campaign will be donated to the Humanitas Fund, where the money will be distributed to World Vision, Nomi Network, and Restore NYC, which are all organizations that work to fight human-trafficking. The Cooper community is encouraged to continue to work towards freedom by looking into buying fair-trade items and food, and by being aware of its surroundings.

NB: I was involved as the Publicity Chair/Social-Media Owner and head of the fundraising team.

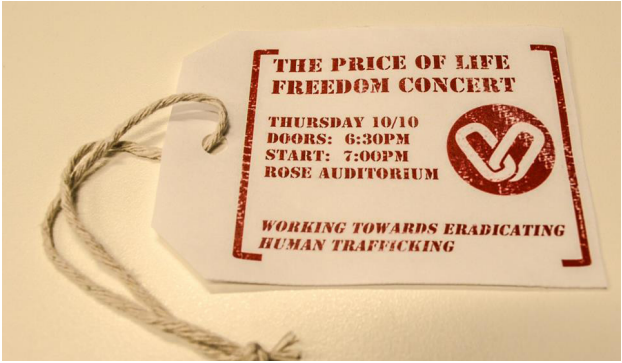


Photo Credit: Jimmy Espinoza

SPORTS UPDATE

YARA ELBOROLOS (CE ‘14)

As the weather starts to get colder, the athletes become more dedicated to school and their teams. The women’s volleyball team has its last game coming up in the next week while the women’s and men’s basketball teams will have their first games in a couple of weeks. Both the soccer and women’s tennis teams are playing hard this season. The men’s volleyball and tennis teams start their season up in the spring, but you can still find them at the women’s practices helping out their fellow classmates. You will find the scores from the previous soccer and women’s tennis games listed below. ♦

Soccer

Cooper Union	King’s College
4	2

Women’s Tennis

Cooper Union	College of New Rochelle
9	0

CRYPTOQUOTE

MARCUS MICHELEN (BSE ‘14)

A Cryptoquote is an encoded quote. It is encoded such that each and every occurrence of a letter is substituted with a different letter of the alphabet. Using clues such as frequency of occurrence and placement, the original quote can be found.

For instance, the word xbdikcxbz could be deciphered to reveal the word LONGFELLOW.

“XQGQAV EX NORMEBN EX ZTR OQARMX

SRXRMNZEQX TNH MRNA ZTREM OVZTQKQSV

QM KRSRXAH.” -LRXXRZT NXSRM

Last issue’s solution:
“When I was young I thought that money was the most important thing in life; now that I am old I know that it is.”
- Oscar Wilde

KENKEN

MARCUS MICHELEN (BSE ‘14)

KenKen is a Japanese paper puzzle by Tetsuya Miyamoto much like Sudoku, only it involves both math and logic. It roughly translates to “cleverness-cleverness.”

Instructions: Like Sudoku, each row and column must contain the numbers from 1 to 5. The number in the upper-left corner of the bolded shape made up of squares is the number you need to get by using the operation next to the number. For example, the “20x” rectangle in the bottom left corner can be filled in with a 5,4 or a 4,5.

The unique solution to the last issue’s puzzle is reproduced below. This puzzle contains only one solution, which will be released in the next issue.

3	1	2	5	4
1	4	5	3	2
2	3	4	1	5
4	5	3	2	1
5	2	1	4	3

15x	120x			
	7+	8x		3-
		45x		
2-				12x
	4-			