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How CA Students Perceive Fenn

by Leo Feininger '16

In every freshman class, and among almost every group of new sophomores, come several boys from the close-at-hand private elementary and middle school, Fenn. I attended Fenn as well. Throughout my years at Concord Academy, there have been various moments in which I've sensed preconceived opinion regarding Fenn kids. Perhaps I'm here to dispel some of these notions you might have. But before I become too immersed in the issue, here are some general facts about the school.



Feininger discusses stereotypes regarding Fenn.
Photo courtesy of Twitter

Fenn has an optional 9th grade year. Fenn is an all boys school. Fenn has a dress code. And it's no secret that the vast majority of Fenn kids are white, with many, but not all, coming from fairly wealthy families. And one cannot forget the cringe-worthy catchphrase "where boys thrive."

Fenn is a fine school if you are male and want to receive a good education. It's just that many kids there don't take their opportunities and privileges seriously.

Now that I've disillusioned you, you can begin to see why people at CA might from time to time snicker softly upon hearing the name. Even I can laugh about this (and often do).

The stereotype of a Fenn kid looks something like this: untucked, striped collared shirt with plaid pants, lacrosse stick in hand, Charlotte Hornets snapback (or any other similarly 'trendy' team, worn backwards), and a pair of ridiculous custom Nikes. Another variation: Vineyard Vines model. Though certainly not everyone at Fenn fits either of those descriptions, I can wholeheartedly attest to the existence of these characters.

I think people at CA sometimes automatically associate this sort of imagery (and the corresponding personalities) with all Fenn kids, which is obviously an unfair generalization. Oftentimes, when I tell someone that I came from Fenn, they'll remark that I don't look like

a "Fenn kid," which seems to prove the existence of a stereotype.

What all this is leading up to is that I feel like people at CA are sometimes quick to make certain assumptions about Fenn kids that are most often not true (especially concerning those who come to CA). People may assume that Fenn kids are inherently rowdy or obnoxious in a way characteristic of middle school boys, that they are generally snobbish, or that they are ignorant of feminism and social justice issues.

Having attended the school for five years, I can attest that there were from time to time some "bad apples," if you will, in the school, who seem to fit the stereotype. But I'm not exaggerating when I say that the Fenn kids who come to CA generally don't fit into any of those groups.

I do realize that I've made a couple assumptions about the way CA sees Fenn, but as one who attended the school I may be a little more attuned to noticing these remarks people make from time to time. Just the other day, for example, I heard a former Fenn kid mention their alma mater, only for someone else to say: "did we really have to go there?" And I'll admit, I can see where they're coming from. Fenn is nowhere near perfect. It has its share of flaws. I have many great memories from my time at Fenn, but also some not so great ones.

All in all, what I hope that you, the reader, will take away from this, is simply to not make assumptions about a person simply based off a single circumstance of their being. There are both "good" and "bad" people from all places and all walks of life, and Fenn is no exception. Fenn is nowhere near perfect (but neither is any other institution).

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Student Reflects on Bioethics of CRISPR

by Alex Berry '17

If the acronym CRISPR sounds like a food processing device, you are not entirely wrong. It can be used to modify food at a microscopic level. However, if CRISPR does mean anything to you, you will likely recognize its growing importance in the study of DNA. The word stands for "clustered regularly interspersed short palindromic repeats". While the name is important to understand in detail, it is simply a fancy way of describing an emerging gene-splicing technology that allows scientists to enter into the genome of a living organism through any one of its cells, and through the use of enzymes, the protein-based "builders" of cells, remove and replace different pieces of genome.

Biologists have been studying and editing the genome for years. The idea that the genome can be modified to eliminate physical defects in organisms has existed for several decades. But CRISPR's "Cas9" enzyme is so much more efficient, accurate, and financially viable of a solution. CRISPR does in seconds what, up until the past few months, has taken biologists months at a time to complete.

However, with speed and efficiency comes proliferation, and with low cost comes accessibility, and with accuracy comes opportunity. As I started to learn more and more about CRISPR, the more skeptical I became.

The introduction of CRISPR into the world of biotechnology draws parallels to

the rise of nuclear technology in the weapon industry during the 20th Century. I can defend that claim, not because I think CRISPR will be responsible for mass obliteration of populations, but because it needs to be dealt with in a similarly careful manner moving forward. Like a nuclear weapon, once you unveil a technology that has the potential to literally alter the human race, there is no going back. There is no such thing as un-discovering. I think that when it comes to using CRISPR, caution should be valued above all else.

In early December of 2015, the International Summit on Human Gene Editing commenced at the National Academy of Sciences in Washington D.C. to debate on the use of CRISPR. The summit was held mainly because earlier in 2015, Chinese scientists announced that they had used CRISPR to modify human embryos. According to an article in *Nature*, scientists from the United States, the United Kingdom, and China were involved in the talks.

Designer babies and human clones are popular topics when talking about the future of bioengineering. I think that it stems from our human obsession with disaster to which I can certainly relate. It is specifically tempting to imagine a scenario similar to the plot of the film *Gattaca*, which is usually viewed in Freshman Biology classes during the unit on genetics and bioethics.

Gattaca, starring Uma Thurman, Ethan Hawke, and Jude Law, imagines a world

where parents choose how their children will be bioengineered and humans are sorted into professions based on their genetic dispositions. When *Gattaca* was produced in 1998, the human genome had not yet been mapped. Genetic engineering was a concept that had only been applied to animals and plants, not humans. The creators of the film were looking far into the future.

But now, nineteen years later, that future is starting to look less and less like a fantasy. If we have already experimented with editing the genome of humans before birth, what can stop us from creating "ideal" humans? And what does "ideal" even mean? More importantly, who gets to define "ideal"? The consequences of those questions are unnerving. According to the *Nature* article, at the summit for Human Gene Editing, Senator Bill Foster of Illinois pointed out that while CRISPR can be a tool for advancing quality of life, "it can also be used "in many ways not beneficial to society."

I have talked a lot about the 'dark side' of bioengineering. There are many applications of CRISPR that are promising. For instance, CRISPR will undoubtedly transform the field of disease prevention. I read that the highly precise Cas9 enzyme, with further modification of its accuracy and effectiveness, may soon have the capability to "erase" diseases. Many clinical trials are conducting genetic testing using mice as their subjects. But ethi-

cally, I think that is going to be the trickiest subject to debate.

It is frustrating when I hear that CRISPR is bursting onto the scene less a year after I lost my grandfather to late-stage lung cancer. As many, many people know, when you are at risk of losing someone that you love, you are often willing to do anything to keep them alive. Had CRISPR been available, who knows what would have happened?

To make sense of hypotheticals, I ask myself this: if this type of treatment was available to my grandfather during his decline, cost aside, would we have chosen to use it? Yes. Without a doubt. But deliberating on the ethics of a medical treatment seems trivial when you are watching someone die.

My principles tell me that genetic engineering puts our society at risk, but when I hear stories of people with life-threatening diseases who, in the future, could seriously benefit from CRISPR, my heart says otherwise.

That is just part of what makes bioethics discussions so tricky. As millennials, it is in our best interest to be educated on this issue, and to have tough discussions because it will affect how we raise our children, what happens to us when we get old, and, as melodramatic as it might seem, and in what ways we want the human race to evolve.

Students Report Catcalling

by Sofie Jones '18

In a town and community like Concord, it is easy to feel safe and unaffected by the offensive language of the outside world. Recently, however, many Concord Academy students have reported being catcalled within the confines of extended campus. The term ‘catcalling’ has a few definitions, but most often refers to the yelling of offensive comments about a person’s (usually a woman’s) physical appearance, usually in a sexualised manner, by passengers in a passing car.

Concord has seen a surge of catcalling incidents in the past few months. Dean of Students David Rost said, “We deal with it from time to time. There has been a cluster this year.” Rost later added, “Unfortunately, it is not a surprise.”

Over 40% of the 130 respondents to a voluntary survey put out by the Centipede said that they had experienced catcalling within the Town of Concord. 74% of all respondents said that they had been catcalled in general.

Many students reported being catcalled on Middle Street, a popular shortcut to the Commuter Rail station, and near the Concord Public Library in Concord Center. Rost noted that many instances have occurred at night, but also in the afternoon around the time that school ends.

Ariana Hughes '18 said that a man approached her earlier this year as she walked from CA to the train around 7:45 PM. She said that the man came up to her, seemingly drunk, and made offensive and sexual comments about her. “I wasn’t expecting a random dude to just start yelling at me,” she said. “I was really scared in the moment.” Hughes told CA administrators about the incident the next morning, but by then it was too late to find the man.

Arianna Vamvas '18 has also experienced catcalling near the CA campus. She estimates that she has been shouted at from

passing cars approximately ten times. Vamvas also recalled being yelled at from a black van.

Instances of people in a black van yelling at students have been reported before, said Rost. He added that the CA administration has been in contact with the Concord Police and that the police “take it seriously.” Rost said, however, that nothing can be done if students do not call the Administrator on Duty (AOD) right away, saying, “The quicker I know, the quicker I can do something.” He added that remembering any part of a license plate number is also very helpful.

The emotional side effects of catcalling are perhaps more prominent than safety concerns. 54% of CA students who responded to the survey did say that they felt threatened when catcalled. As Hughes recalled, “When I was younger...I had this fantasy of being really tough, but when it actually happens it’s so startling.” Rost explained that “It’s most unsettling when you feel safe in Concord and then you’re singled out because of your race or because of your gender.”

To avoid catcalling and maintain students’ safety, Rost said that “We advise kids to go out in groups of three after dark.” However, many believe that, while it may be offensive and upsetting, catcalling cannot be stopped. Vamvas said, “No matter how many moments we have, we’re never going to be able to change it...It is impossible to change an attitude”. She added, “You know it’s coming.” Hughes agreed, saying “It’s their problem, not mine...obviously it’s not right.” Catcalling and verbal harassment are issues everywhere, Hughes said. She added that “Concord is a bubble within a bubble...we think we are exempt from some things.” Rost agreed, explaining, “No community is immune from it [catcalling].”

The AOD number is (978) 402-2388. *The Centipede* strongly recommends that all students save this number in their contacts or keep it on their person.

Pickle Explains Warm Winter Weather Patterns

by Anika Talwar '17

During a typical winter, you open the blinds, expecting to see flurries of snow covering your driveway and lawn. Instead, you see lush green grass, the strong, bright rays of the sun shining high in the sky, and of course, no snow. This scene accurately describes much of the Northeast during much of this winter season. According to CNN, much of the Northeast experienced the record-high temperatures on Christmas Day. Recently, the weather has vacillated between bitterly cold blizzards and mid-fifties days that recall spring. Such weather conditions have caused people to wonder, ‘What is going on with the weather this year? What is causing it? Why have the past couple of months shown such bizarre warm weather patterns?’

John Pickle, a Math and Science teacher at Concord Academy, had a couple of answers to these questions. “We are experiencing powerful weather across the country that is not our typical winter pattern,” Pickle said. “There are a number of factors at play. The biggest is that we are in the largest recorded El Nino event. So the warmest water, normally located on the western Pacific Ocean, has moved across to the tropical eastern part of the basin. This changes the heating patterns for a large part of the globe, affecting the air masses that affect the jet stream.”

Pickle continued: “Another big factor is that the North Pole region is warming faster than the tropics, so the latitudinal temperature gradient is decreasing, which weakens the strength/speed of the polar jet stream. This jet

stream separates the cold polar air from the warmer mid-latitude air and it steers storms created between these two bodies of air. The jet stream has wiggles in it (called waves), and these waves move around the globe, which changes the locations where storms develop and intensify.”

“A weakened jet does not move these waves as fast, and the wave pattern can become stalled, especially in the mid winter and summertime,” Pickle said. “This is what happened last year. The jet stream waves stopped moving for roughly seven weeks, and New England was in the position where the winter storms developed and moved over. So, this effect is something we are experiencing due to climate change, and it is here for a long time.”

Besides these major factors, others are also impacting the weather. Pickle added: “There are many other smaller factors affecting the heat distribution around the region such as ice cover on Hudson Bay and the Great Lakes, ocean current temperatures off New England and the Gulf Stream, etc.”

So, will there be more snow days this year? How long will this weird weather pattern continue? Pickle’s isn’t sure: “We need to watch the jet stream patterns over the next month to make sure the jet stream and storm patterns move over New England and stall like last year. The current forecast is that they won’t, but long term forecasts are still improving, so it never hurts to see if the forecast changes over time.”

Admissions: Choosing the New Faces of CA

by Mary Craig '17

With the application reading season well underway, Admissions is hard at work making decisions regarding the incoming students next year. For many students at Concord Academy, this time of year may remind them of not so long ago, when they had only hoped to become a part of this community. For others, they may still be asking themselves why they were chosen to be a part of this community over hundreds of other applicants. I was able to meet with Marie Myers, Director of the Concord Academy Admissions team, to gain some insight on the admissions process.

For the past few years CA has received between 800 and 900 applications each winter. Marie stressed that in admissions, “we actually do discuss every single applicant.” This begs the question of how a staff, of only seven, can handle this large array of individuals. They are joined by faculty readers, which this year include Andrea Yanes-Taylor, Nick Hiebert, and Liz Penland. In addition they are also joined by senior readers, a group of self-selected twelfth-grade students who will volunteer their time in reading through each application.

The staff and readers then divide into four different committees. Each committee is assigned a certain demographic such as “boarder boys” or “day girls.” These committees then spend their time reading through

each applicant in a strongly discussion based environment. Everyone is considered a full committee member and key to the process. “The senior readers count the same as I do, or as John does, or as a faculty reader does,” stated Marie.

When asked what they look for in a student, Myers referred back to our mission statement saying, “we are looking for students who have a love of learning, students who will add to and appreciate and respect a diversity of backgrounds and perspectives, and students who can live up to and support and be excited by the notion of common trust.”

Although many of us are so used to being guided by these fundamental CA principles, they are hugely important to the admissions officers and not quite as easily discernible as one might imagine. It is easy for officers to quickly spot a love of learning, but it is not as simple to decide how a student will behave and operate under our system of common trust. Myers described that they must then look closely at, not only a student’s grades or SSAT scores, but how their teachers speak about them or their interests outside of the classroom.

At the end of the reading and discussion process each committee will select the students they would like to admit. Then the whole team comes together to discuss their final decision. These decisions are sent to Myers for final approval. She states that it is,

“incredibly rare that I would look at a committee decision, and chose to do something different.”

Myers describes the most rewarding aspect of her job as being able to be an active part of the community and watch students grow. Prior to admissions, Myers was a college admissions officer, then worked in CA’s college counseling office before moving across the street to work in Belknap. She currently lives on campus with her family as a house-parent and has several advisees. “I love the notion that here at CA I might meet a student who’s sitting on my sofa going through the interview process one year and then, four and a half years later, see them

receiving their diploma and actually feeling as though I know them,” she relayed with a smile. She recalls instances of attending theatre performances in which she was surprised to see a student who had, at their interview, been most excited to about the sports program. This space for change, she says, is what makes CA so special for all students who choose to attend.

Choosing who will become a part of such an intricate community as Concord Academy can be an incredibly difficult and rewarding job. The Admissions team has much hard work ahead of them, but the rest of us can look forward to the fall when we will be able to meet eighty new chameleons.



Admissions staff, faculty members, and senior student readers convene in Belknap during the months of January and February to discuss applicants.
Photo courtesy of Creative Commons

Movie Review: *Macbeth*

by Nick Walters '16

I’ve had the chance to see the 2015 film adaptation of *Macbeth*, a limited release. Besides one Cambridge cinema, the other ‘nearby’ options were New York City and Los Angeles.

I’ll start with the scene that moved me most and struck directly at a central theme of the play: the murder of Banquo. On their way to Macbeth’s feast, Banquo and his son Fleance are ambushed by hired murderers, and Banquo shouts to his son to run away (“fly, good Fleance, fly!”). In the film, while the murderers overcome Banquo and slit his throat, the young Fleance breaks into spontaneous, heartbreaking tears, and then flees. This moment of reaction stuck out as a key scene.

While other major film and TV adaptations have presented Fleance’s reaction as one of mere shock and a hurried escape, the immediate sadness and helplessness of this reaction seeks to illustrate the effect of how quickly and brutally a family can be torn apart. In scenes prior,

the movie shows that the two have a close relationship, which just makes Banquo’s death and then Fleance’s reaction all the more heart-wrenching.

Thus, I believe the film effectively presents a main theme of the play: the horrible destruction caused by ambition that is unconstrained by one’s morality, particularly on the connection of family. Other scenes of this nature stood out as well: Malcolm breaking down after seeing his father’s corpse, the cremation of the ‘fabled’ Macbeth child, Lady Macbeth feeling her guilt while witnessing Lady Macduff and her children’s execution, and Macduff’s intense reaction after being told of their slaughter.

The film, in addition to its faithful core, effectively utilizes the power of ambience, the tense and eerie side of silence, naturally sublime Scottish landscapes, a score that perfectly complements the film’s action, the talents of its brilliant cast, and absolutely stellar cinematography. In striking contrast to Lady Macbeth’s final scene, a misty, early-morning sleepwalk soliloquy deliv-

ered in chilling whispers from beneath a grey-white shawl, Macbeth’s final scene sees him facing off with Macduff while ashes from the burning forest of Birnam are taken by the wind to cover Dunsinane Castle in smoke, casting the entire scape, including human figures, in a hellish orange-crimson glow (“turn, Hellhound, turn!”).

After watching the three most well-known *Macbeth* films from 1948, 1971, and now 2015, I have seen how the writers and directors have truly brought in their own style, and how different they are. Each film changes something about Shakespeare (as all adaptations of any writer have done and will do), some more than others (1948 rearranged the most, 1971 the least), but I believe each film has strengths in how it adapts.

This version in particular was the most ‘trimmed down’ I’ve seen. Naturally, though with some few exceptions, films of Shakespeare’s plays have received mixed reactions because of what gets changed: some hate them, some love them. For this 2015 *Macbeth*, I absolutely loved it, and I immediately wanted to see it again (which I actually did). Sticklers for accuracy will criticize the film for cutting too many lines; I do not. The aspects that were added and the aspects that were presented to the viewer were done so effectively that by the end of the film I felt that they more than made up for what had been left out in the adaptation.

Seeing it a second time only reassured my appreciation for this mesmerizing, unique, and very well-made adaptation of “the Scottish Play.”

Album Review

by Sam Barton '17

Among the great releases in late 2015 and early 2016, a standout was the *Anderson .Paak EP*. Blended Babies, a production duo from Chicago, is known for soulful sounds accompanying hip-hop beats. “Make It Work,” which features Donnie Trumpet, is a phenomenal track. It is also accompanied by a music video. “Make It Work,” follows “So Slow,” and both are interlaced with funk and jazz influences. “Make It Work” has beautiful, soft vocals, along with some signature jazzy beats in the background. It is the perfect song to follow “So Slow,” a song with a few drug references that may make some casual listeners uncomfortable. It makes use of some

horns in the second half, carrying the listener into musical bliss; readying him or her for the next track. “Drifter II,” the penultimate song, is almost hypnotic with its reverberating guitar and vocals. It encapsulates the struggle for greatness, something that many can relate to. The EP concludes with “Cheap Whiskey 70’s Riesling,” almost as a toast to the finished work. Overall, this is a great release, and I highly recommend it to anyone who is a fan of some soothing hip-hop vibes. If you don’t identify as the aforementioned ‘anyone,’ these tracks may be a great way to get into this particular subculture of obscure beats that are readily available.

Can You See the “Fourth Color”?

by Ashley Kim '19

Humans are born with cone cells in their eyes. When light hits an object and reflects, color cones absorb the curves and recognize the color by the length of the wave. This is how people can see and identify various colors.

Typically, people have three-color cones: red, green and blue. However, there are some special people who have a fourth color cone in their eyes. While red, green and blue color cones create a three-dimensional color space for ordinary people, the presence of a fourth color cone creates a 4 dimensional color space for those with the fourth color cone. This condition is known as tetrachromacy, and thus, all organisms with it are referred to as tetrachromats.

Tetrachromacy most often appears in certain species of fish, birds, reptiles, insects and amphibians. For those organisms, the range of color vision created by pigments is extended into the ultraviolet colors. Now, you might wonder why certain living things such as fish and insects can see less colors than humans. This is because those organisms only have two color cones. However, while they lack two of the normal color cones, they can see the fourth colors characteristic of tetrachromacy because one of their color cones is the fourth, which enables them to see such colors.

What exactly do colors revealed by the fourth cone look like? According to the

artist Concetta Antico who is well known as a tetrachromat, the fourth colors are neon colors that surround an object. For example, the wings of a flying bird would be enhanced with neon blue as the animal moves through the air.

Simply put, tetrachromats can see the world with a much greater variety of color. Artwork created by tetrachromats reflects this well, as it is extremely colorful and has a truly unique feeling when compared to the work of “normal” artists. Concetta Antico once said that she would like to transfer her perception of the world onto paper so that others can see the beautiful world she sees.



Scan here to see if you can see the “fourth color” in artwork by Concetta Antico, a tetrachromat artist.

Movie Review: *Star Wars: The Force Awakens*

by Carter Kratkiewicz '16

(4.5/5 Stars)

It’s quite possible that you’ve heard some strong opinions on how that new *Star Wars* movie turned out. I happen to have one of these strong opinions; I even got into a (verbal) fight with a young child over this film. Nevertheless, I will try to review *Star Wars: The Force Awakens* (TFA) as objectively as possible.

Director J.J. Abrams had an extremely tall order in creating and kicking off the new trilogy of *Star Wars* films—nothing short of rebooting one of the most beloved franchises of all time. Abrams chose to have as many real effects as possible in this film; these included sending actors running through the desert away from real explosions. His choice was intended to give TFA the same feeling as the original trilogy. This was definitely the right move, as it made the films actually feel like they fit into the *Star Wars* universe (unlike the prequels, Episodes I through III).

The Empire fell apart in Episode VI, but shortly afterwards a mysterious character created “The First Order.” The First Order is a copycat organization of the Empire, complete with an army of stormtroopers. However, they are not nearly as powerful as the Empire once was. The Resistance works to destroy this horrible organization. The Resistance and The First Order are on equal ground in TFA; this marks a significant change from the original trilogy, in which the Empire wielded far more power than the Rebellion. TFA centers on Rey (Daisy Ridley), a scavenger on the desert planet of Jakku. Rey crosses paths with a

droid that is desperately trying to reach the Resistance; she also meets a former stormtrooper (John Boyega) who has deserted from the First Order. Together, they make a collective attempt to reach the Resistance.

Diversity and feminism are two aspects of *The Force Awakens* that stand out significantly from previous *Star Wars* films, as well as from blockbuster films in general. The film makes it abundantly clear that Rey doesn’t need a macho, male hero to hold her hand and save her from the bad guys. While it seems like this should be fairly standard, portrayals of women in film are almost never like this, especially in big-budget films such as this one. Another main character in TFA, Boyega, is a black man, which also shouldn’t be as surprising as it is. Black men are most often cast as leads in films about the civil rights movement, or in movies like “12 Years a Slave.” Films that have nothing to do with racism are sorely lacking in diversity. While TFA could have been more diverse, it is still a significant step forward for both diversity and feminism in film.

There are a few clear similarities to the original *Star Wars* movies in TFA; however, contrary to what some say, it is not a “shot-for-shot remake of Episode IV,” the first *Star Wars* film. The similarities are obvious, but TFA is its own film and is quite distinct from the original trilogy. I highly recommend that you watch the new *Star Wars* movie, whether you’ve seen the previous six films or none at all. Almost anyone would appreciate this gem.

CA Must Divest from Fossil Fuels

by Elly Veloria '16

I believe in the possibility of a better world. It's the reason I care about women's rights, the reason why I work to bring attention to the structural and systemic racial inequality that exists in American society, and the reason that I am passionate about the environment.

Our country was founded on land stolen from indigenous people, on the backs of slaves, and the subordination of women. Fossil fuels literally and figuratively fueled these systems of oppression, by allowing industries to mass produce products while exploiting the land and workers. All of these issues are equally important to me because they are linked.

White supremacy is furthered by the domination of corporations in the fossil fuel industry, corporations that are primarily owned by white men. The fossil fuel industry exploits land in areas where the most vulnerable communities are most immediately affected - particularly women, who are about 70% of the world's poorest people, which further perpetuates the patriarchy.

Capitalism, America's dominant economic ideology, allows for these abuses of power by encouraging the idea of maximum profit and infinite growth on a finite and eroding planet. What has emerged as



Students at Tulane University, including Lina Janah '14 and Claire Fitch '13, push for divestment.

Photo by 350.org. CC. Attribution-NonCommercial-ShareAlike 2.0 Generic.

American society is a white supremacist capitalist patriarchy, a term coined by bell hooks that very aptly describes the intersection of issues that remain an integral aspect of how our society functions. Yet in spite of

the overwhelming systems of oppression we are locked into, I still believe that our world can change for the better - if we work for it. As students, our generation has the opportunity to fundamentally change the

way our society functions. We need to start questioning the injustices that exist in our world, and we can begin by pushing against the economic ideology that has dominated American society to the point where we are beginning to self-destruct.

There is a very tangible option available: divestment. If Concord Academy were to divest, it would require that the administration take out all financial investments in the fossil fuel industry, which begins the process of chipping away fossil fuel's capitalism-driven chokehold on our world.

The point of divestment is not to throw the big corporations such as Shell or Exxon out of business; the stocks are sold to someone else. Instead, CA's divestment would represent that we, as a community, do not support or condone fossil fuels and our own oppression.

Divestment is a positive change for our future: we can help our country begin the transition to a more sustainable economy. It's not enough to just talk about social injustices; we need to connect action to our words.

Whether we choose to divest incrementally or at all once, divestment is a step in the right direction. What needs to happen, though, is a clear indication that students are passionate about this issue and want to see a change. After all, this is our future. Are we going to fight for it?

Paris Climate Talks Inspire Student Activism

by Sofie di Tommaso '17

Extreme flooding, dangerous droughts, fresh water shortages, and the spread of diseases and natural disasters could be common in the not-so-distant future due to humans' environmental impact on Earth. The environmental future of our planet was discussed and negotiated during the 2015 Paris Climate Change Conference, which was held late last November and continued into early December. For thirteen days, representatives of 195 countries gathered in Paris to tackle global warming and propose goals for the future.

In this relatively short period of time, the countries involved set a goal to keep global temperature increases below two degrees Celsius above pre-industrial levels, with an even more ambitious target of staying under 1.5 degrees. This temperature limit may seem random, perhaps because it is. Scientists haven't yet pinpointed the "tipping point" at which both the Greenland and the West Antarctic ice sheets will melt, but staying below a 2°C temperature rise will hopefully stall the melting process.

The countries present at the Conference will create individual plans for their respective countries. Additional plans will be submitted every five years to continue monitoring carbon emissions and temperature rises. A proposal to raise 100 billion

dollars to assist developing countries was also supported but not made legally binding during the conference.

The results of the Paris Climate Change Conference have been met with positivity. President Barack Obama praised the agreement by saying, "The Paris agreement established the enduring framework the world

needs to solve the climate crisis... It creates the mechanism, the architecture, for us to continually tackle this problem in an effective way." But even a settlement between 195 countries doesn't fix everything.

There are currently no means of enforcing the Paris Climate Agreement, and before any measures go into effect, 55 countries,

whose greenhouse gas emissions account for 55% of the global whole, must ratify the agreement.

Some scientists also argue that that goals made are too optimistic and cannot be met with available technology. Reaching the 1.5°C goal would require moving off of fossil fuels completely by 2050, and even then, pre-existing carbon may need to be removed from the air, a process that is currently impossible to implement on such a large scale.

The Paris Climate Change Conference did not change environmental affairs overnight, but it certainly brought attention to the crisis at hand. Bringing together both developed and undeveloped countries in an unprecedented deal has captured the attention of many, including members of the Concord Academy community.

During the week of December 6th, CA participated in a "Climate Awareness Week" in honor of the conference in Paris. Through events ranging from desert discussions to a vegetarian day to a solar-lit dinner, environmental activists on campus attempted to make CA students more aware of their own environmental impact. While no one student or school can stop global warming, the collective movement inspired by the Paris Climate Agreement may forestall the catastrophic consequences that often seem inevitable.



Activists rally for climate action in London. Photo by Alisdare Hickson. Licensed under Creative Commons. Attribution-ShareAlike 2.0 Generic.

Science in Transition: CA's Modular Classrooms

by Olga Kostochka '17

CA Labs is the first significant renovation of the Concord Academy science building since 1964. The project has recently moved into its next phase: modular classrooms.

Don Kingman, the Director of Operations at CA, told the Centipede about the research, logistics, and costs behind the temporary modular classrooms.

Kingman pointed out that CA has learned from other schools' renovation experiences: "St. Mark's School used [modular classrooms] for exactly the same purposes. We [visited the school, and] understood how they used the modules."

He explained that at CA there are six interconnected modules that constitute the temporary classrooms: four classroom

modules, a preparation room for chemicals, and a module with two handicap-accessible bathrooms. In Kingman's words: "It's a system and it works."

Kingman shared that the renting cost for the modules is about \$225,000, from December 2015 until May 2016.

He added: "That [price] doesn't include so many infrastructure that we had to do. We had to get power, we had to get water and sewer."

Regarding the efficiency of the temporarily structure, Kingman said: "The modules are designed to the current energy code. Even though they are electric heat and air conditioning, we feel that it's a tradeoff to heating an inefficient building, [which was the case previously.]"

The Centipede also interviewed members of the CA Science Department to learn about their experiences in this stage of the

construction of CA Labs.

Andrea Yanes-Taylor, the CA Science Department Head, commented on the department's move to the temporary classrooms: "It went relatively smoothly, I mean we have a nice new office and I think the classrooms are working out." Yanes-Taylor added that there was some stress involved from "Just not having things we [the science department] are used to having."

She added: "We [the department members] actually got to take a tour of the construction site at our last meeting, and it was really cool to be in our old spaces, but everything was gone."

Amy Kumpel, a Math and Science teacher at CA, shared her insights into the moving process as well: "I would say it was definitely a big project. Thank goodness there is so many of us in the science department, I think if it was just me it would've

been very overwhelming."

Overall, Kumpel said: "I think it's been actually not so bad. I think that it was a lot of work and it took a lot of our time, as a department, but it was definitely worth it." Students, although affected by longer walks from class to class and a different classroom space, are, on the whole, content with the modular classrooms.

Nina He '17 told the Centipede: "It's kind of harder to get to a certain classroom or [space on campus,] because you have to go outside or walk the long way to the language hall."

"There are some downsides, [but] there is also a new building [coming up] so it's awesome!" she concluded.

Nicky Longo '17 told *The Centipede*

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Can the Warriors Beat the 1995-96 Bulls?

by Jeremy Liang '16

If you even remotely follow American sports, you have probably have heard of the success of the Golden State Warriors. The Oakland team opened the season with twenty four straight wins, a National Basketball Association (NBA) record for the best start to a season ever, and currently stand at 52-5 (as of February 22nd). It's impossible to simply consider this Warriors squad in isolation, and thus, with such a hot start, many are wondering if this year's Golden State squad could go down as one of the greatest basketball teams ever to play. Now, to be sure, this question of "Greatest Team of All Time" is very much open to debate. Oft-mentioned candidates include the 1985-86 Boston Celtics, the Detroit Pistons of the late 1980's, the Showtime Lakers of 1986-87, and others. However, for many, the title of "Greatest Team Ever" goes to the 1995-96 Chicago Bulls, a Michael Jordan-led team that posted the best record of all time at 72-10. Now, with Golden State's electric start, many fans and commentators are wondering whether or not the Warriors could beat that team's record and become the greatest team of all time. It's become something of an internet joke across Facebook comments and satirical articles, but because the Warriors might actually break Bulls' record, it remains valid.

It's worth mentioning that this debate will be entirely meaningless if the Warriors do not win the championship. Sure, what they have done thus far this season is undeniably historic, but it really won't mean much if they don't hoist the Larry O'Brien trophy come June. Think of the 2007 New England Patriots, who finished the regular season with a perfect 16-0 record, but lost in the Super Bowl. While they were undisputedly one of the most dominant teams in NFL history, do we really put them on the same plane as other teams that have actually won the championship? Cases such as this, like the Pats and, say, the 2001-02 Sacramento Kings, are usually treated under the category "Greatest Team to Never Win the Title." That group, to be sure, is a far less prestigious club than "The Best Teams to Win the Title." Of course, I'm not trying to jinx the Warriors by any means—if anything, I would love to see the squad challenge the Bulls' 72-10 record—but there is still a whole lot of basketball yet to be played.

For the 95-96 Bulls, their biggest liability was at the center position. It wasn't

such an issue when Jordan, Scottie Pippen, and Dennis Rodman were unstoppable, but against talented centers, the likes of Luc Longley and Bill Wennington would nonetheless be dominated. That is why some people believe that of all the teams in NBA history, the '02 Lakers would have had the best chance of upsetting the Bulls, as Chicago would have had absolutely no way of stopping center Shaquille O'Neal in his prime. Golden State has Andrew Bogut and Festus Ezeli at the center—not exactly Shaq-caliber players. From this perspective, Golden State doesn't seem like a great candidate to overtake the Bulls in a hypothetical head-to-head matchup.

Golden State's biggest strength, of course, is their small-ball demon squad: Steph Curry, Klay Thompson, Andre Iguodala, Harrison Barnes, and Draymond Green. This lineup has created quite a problem for all of the Warriors' opponents thus far, including the Cavaliers, who lost to the Warriors in last year's NBA Finals. While the play of Curry and Thompson undeniably makes the lineup as deadly as it is, Green and his playmaking, especially out of the pick and roll, that make him an uncomfortable mismatch for opposing centers. He has both outside range and inside touch, which keep his opponents guessing, but his greatest asset is his passing ability; most big men pass with an elegance akin to the fumble of a football, but the Michigan State alum averages a crazy 7.3 assists per game. This makes him a deadly weapon on offense—he is the fuel that makes the death squad run. While Curry and Thompson garner most of the attention due to their lights-out shooting, Green is really the x-factor in Golden State's success, and opposing teams really haven't found a way to neutralize him.

Draymond would undeniably wreak havoc on Longley and Wennington, but the '96 Bulls had their own x-factor: Dennis Rodman. On paper, the Worm and Green have a lot in common: they are both undersized for their positions, possess insane motor, and have incredible defensive ability. Rodman was a better rebounder and Green is a better passer, but as even Warriors Coach and '96 Bulls team member Steve Kerr admits, they have a lot in common. However, because Rodman was such an adept defender and of a similar build to Green (6'8 against Green's 6'7, 220 pounds vs. 230), moving the Worm to center could neutralize the Warriors' x-factor. Granted, Green would do the same to Rodman's of-



"The Splash Bros" – Guards Klay Thompson (left) and Steph Curry (right) are leading the way for an extraordinary Warriors squad.

Thompson photo by nikk_la. Licensed under CC. Attribution 2.0 Generic.
Curry photo by Keith Allison. Licensed under CC, Attribution-ShareAlike 2.0 Generic.

fense, but Rodman's offense wasn't nearly as integral to Bulls Coach Phil Jackson's triangle system as Green is to the Warriors' small ball.

In a similar fashion, with Jordan and Pippen being exceptional defenders, I do see both Curry and Thompson having a rough time. This isn't to say that the Splash Brothers would be completely contained, but they would certainly not be able to run rampant as they often do now. On the other hand, while Curry and Thompson are both good defenders, they would be futile in guarding Michael Jordan. M.J. is the greatest player of all time for a reason, and with his swagger on court and unyielding competitive fire, he would absolutely take over this matchup. I love everything about this Warriors squad, but they are peanuts compared to what the Bulls were able to do. The fact of the matter is that, while the Warriors front office and Kerr have built and coached a team that is fundamentally and tangibly very similar to the '96 Bulls, the Bulls simply did it better. Once again, a different team with a dominant center might be a much more interesting matchup against the Bulls, but frankly, I don't really see how any team could take four games out of seven from a Jordan Bulls squad. One? Sure. Two? Maybe. But four? Now we're pushing it.

Quite frankly, much of the Warriors' "Greatest Team of All Time" hype may have been premature. The media are not even sure that the Warriors are the best team this

season. The San Antonio Spurs, a perennial favorite for the championship, do not have quite as good a record as the Warriors (49-9), but advanced stats suggest that they are perhaps a more dangerous team than the Warriors. According to NBA Reference, this year, the Spurs hold the third best offense and best defense in the league, while the Warriors have the best offense and sixth best defense. However, while the Warriors offense is only marginally better (by two points) than the team in second, Oklahoma City, the Spurs are over five points better in defense than the second place team. Based on Net Rating, which shows point differential after 100 possessions, the Spurs rate better than the Warriors. FiveThirtyEight, a statistics website, further supports the claim that the Spurs are more potent than the Warriors, giving them a better simulated point differential per game, and ultimately, higher odds of winning the NBA title. However, FiveThirtyEight still predicts that the Warriors will finish with a better record than the Spurs, which gives residents of Oakland hope that the 72-10 record can be broken.

Ultimately, however, a hypothetical is a hypothetical for a reason. No matter what analysts and experts say, there is no direct way of comparing two historically great teams, and every conclusion will only be a matter of opinion. Instead, let's focus on the present. Perhaps we should watch the Warriors for what they are: a really, really good basketball team, with no strings or history attached.

The Year in College Football

by Lorenzo Lampietti '16

As Alabama hoisted the College Football National Championship Trophy this past January, the 2015 College Football season has officially come to a close, capping off what has been an interesting Bowl season for fans everywhere. Although many of the Bowl Games were total blowouts, there were a few that caught the eyes of many spectators.

Besides for the National Championship game, the most exciting Bowl game to watch was the Valero Alamo Bowl, featuring #11 TCU against #15 Oregon. After having had their starting quarterback Trevone Boykin suspended the weekend before the game, TCU seemed to have a slim chance at overcoming an energetic, often deadly Oregon team. The Ducks jumped out to a 31 to 0 lead by the half, with TCU looking help-

less behind backup quarterback Bram Kohlhausen. However, TCU came back firing in the second half, scoring 47 points on nine consecutive possessions before overtaking Oregon in triple overtime. Bram Kohlhausen threw for two touchdowns while rushing for two more, and led TCU to tying the record for the biggest comeback in College Bowl history.

Another great Bowl game of note was the Military Bowl, in which #21 Navy faced off against unranked Pittsburgh. Navy's quarterback Keenan Reynolds delivered a standout performance in his final game for Navy. Having been excellent all year for the Midshipmen, no one was quite surprised when he delivered his 270 total yards, 4 total touchdowns performance en route to a Navy win. Not known to many is the fact that Keenan Reynolds came in fifth in the Heisman voting this year, topping outstanding running backs and

household names Ezekiel Elliot and Leonard Fournette. Ending a spectacular career at Navy, Keenan Reynolds now holds the records for most rushing touchdowns (88) and most rushing yards by a quarterback (4,559) in NCAA D-I history.

However, no individual performance comes even close to topping Christian McCaffrey's incredible 368 all-purpose yardage game for #5 Stanford against #6 Iowa in the Rose Bowl. He put the team on his back and won the game in seemingly single-handed fashion.. McCaffrey caught a short pass and took it 75 yards to the goal on the first play from scrimmage. That was just the start. He tacked on another 172 yards on the ground despite not scoring any rushing touchdowns. But that's not all; he even returned a punt 63 yards for a score at the start of the second quarter. This outstanding performance from McCaffrey led Stanford to a dominating

win over Iowa. And if not to add on to those two touchdowns, McCaffrey also broke the record for most all-purpose yards in a Rose Bowl Game. Perhaps he was still a little bit salty over his second-place finish in the Heisman voting? But nevertheless, this sets him up for a dominant junior year next season.

2016 was also the second year of the FBS' new College Football Playoffs, a four team playoff that eventually decides the National Champion. This year's playoff teams were #1 Clemson, #2 Alabama, #3 Michigan State, and #4 Oklahoma. While matchups between Clemson and Oklahoma as well as Alabama and Michigan State seemed like enticing football games on paper, the two games ended up being massive

The Centipede

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The mission of *The Centipede* is to inform, spark curiosity, and generate discussion within the community and beyond. The majority of the content relates to school issues, events, and news, but occasionally writers voice their opinions on politics, sports, and other contentious topics.

Modular Classrooms

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that the modular classrooms seem to be an efficient alternative to the old science building. "I think the new modular classrooms are almost equivalent to what we had before," he said, "And I think the classroom environment is much more focused on the enthusiasm of the teachers and students, rather than the locations."

Although the modular classrooms have been well-received, their lifespan at Concord Academy will be a brief one. CA Labs is scheduled to be completed by the Fall of 2016, at which point the science department classrooms and office will have to relocate again. This time, however, they will be moving into a brand-new facility.



Students currently attend science classes in the modular classrooms (pictured above), which are located on the tennis courts. Photo by Julia Shea.

Fabiana Discusses her Experience at CA

by Eugene Lee '19

Every day, we come in and out of school, often unaware of the people who help us on a daily basis. These unsung heroes work so hard everyday, yet they don't get the recognition that they deserve. The kitchen staff has always been a part of the Concord Academy community, but we only know them as "The Lunch Lady" or "The Guy holding the pasta". In reality, even if they are a part of the community, we don't know them well. However, one member of the kitchen staff, Fabiana Meireles agreed to share her thoughts and opinions to the CA community. Fabiana comes from Brazil and has been working at Concord Academy for about 15 years. Besides, working in the Stu-Fac (the Student-Faculty Center), she is also a mother and a wife.

EL: What have been the positives in working here at Concord Academy?

FM: Oh, I have a lot of positives. The first one is that my friends are in the kitchen and I love working with everybody. I also like seeing other employees [in Concord Academy] too and the students.

EL: What have been the negatives?

FM: So far, I don't have any negatives. Believe me, I don't have any.

EL: What did you do before you started to work here?

FM: In Brazil, I worked in a store where we sold clothes.

EL: Last year, we had a surprising 6 snow days. What was it like to stay overnight?

FM: It was nice. I felt really good because I stayed for help for the students. You know, because if I didn't stay, they wouldn't have had food.

EL: How did your family react?

FM: You know, I missed my daughter very much who was at the time, at home with my husband. But that was okay; it was only for a couple of days so it was alright.

EL: What do you like to do in your spare time?

FM: Oh, I love to go out with my daughter and my husband to the movie theatres. She (daughter) and I love it. We watch many and any kinds of movies. We have special treats for her.

EL: What are your hopes and dreams?

FM: Well, my dream now is to go to college so I can finish going to school. But right now, I go to another school to learn English. You need very good English to go to college.

College Football

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routs by the higher seed. Clemson overpowered Oklahoma by a score of 37-17, and Alabama shut out the Spartans in an absolutely dominating win by a score of 38-0. This leads us to the National Championship Game, which was played on January 11th between the top two seeds. It turned out to be an excellent contest, pitting the Heisman winner, Derrick Henry, Alabama's running back, against the third place finisher and Clemson's star quarterback Deshaun Watson.

Let's begin at the fourth quarter with the game tied at 24-24. Alabama pulled a surprise onside kick that they recovered, giving themselves excellent field position. Two plays later quarterback Jake Coker of Alabama threw a 51-yard touchdown to O.J. Howard to go up by 7. On the ensuing possession, Clemson took the ball deep into Alabama's red zone, before being forced to settle for just 3 points. Then, on the next kickoff, Kenyan Drake of Alabama returned the ball 95 yards for a score to put the Crimson Tide up by 11. Following two drives resulting in touchdowns for each team, Alabama was up 45-33 with just over a minute remain-

ing. With the odds stacked against them, Watson drove down the field with time running out to score and bring Clemson within 5. However, they would not get another chance, their onside kick went out of bounds, and after Coker took a knee, Alabama were National Champions once again. The final score was Alabama 45, Clemson 40. Watson put on an incredible performance, throwing for 405 yards and 4 touchdowns while tacking on another 73 on the ground. Coker threw for 335 yards and 2 scores while Henry ran for 158 yards and added on another 3 touchdowns.

Does this fifth national championship, and fourth while at Alabama, cement Nick Saban as the best coach in College Football history? Many would say yes. His reign at Alabama has been too dominant for too long. Their continual dominance in college football, year after year, has antagonized the team for many fans, and like many great dynasties, the Crimson Tide are approached with genuine disdain. However, as a native Bostonian, I finally understand how sad it must be for other people to watch Bill Belichick and the Patriots remain the most dominant team in the NFL year after year.

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