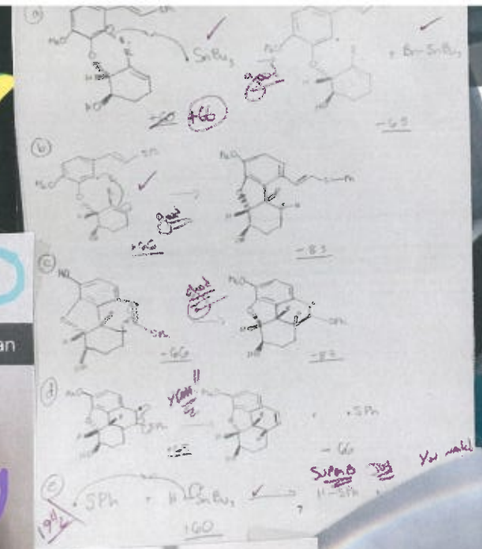
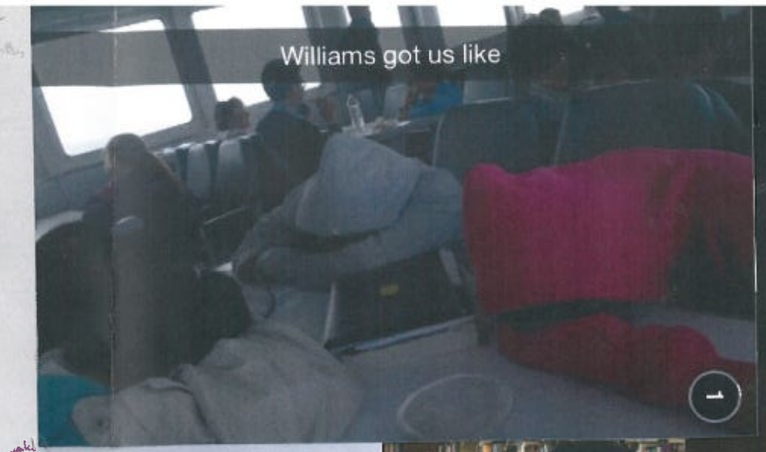
OURSTEM+ AND
BSTEM PRESENT

# SUMMER RESEARCH PANEL

WEGE AUDITORIUM/
OCTOBER 10, 2017







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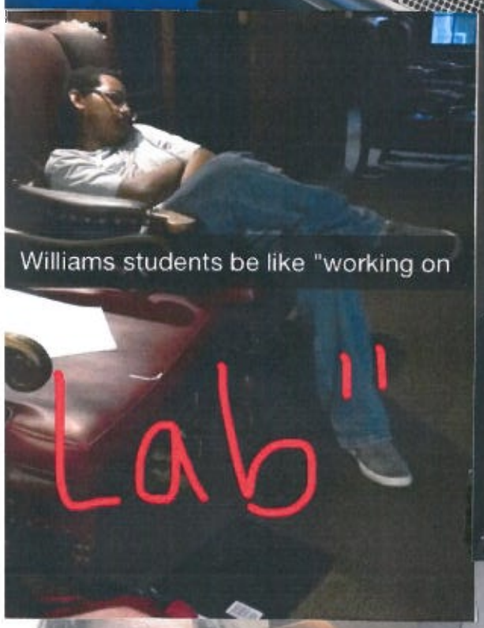
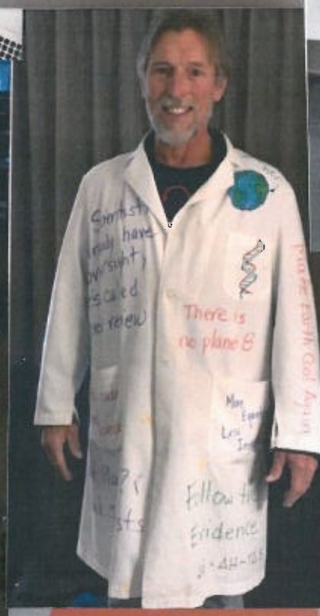
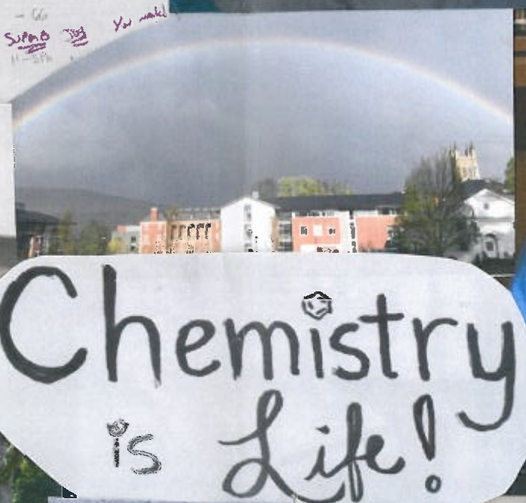
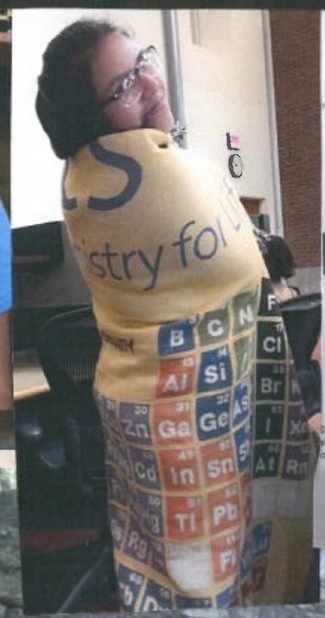
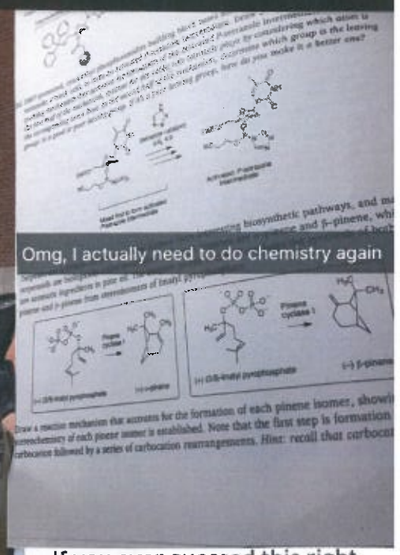


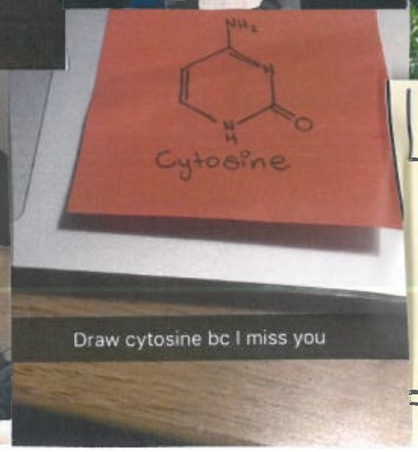



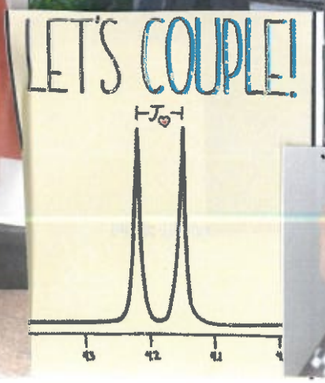




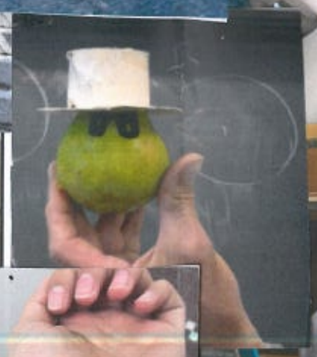


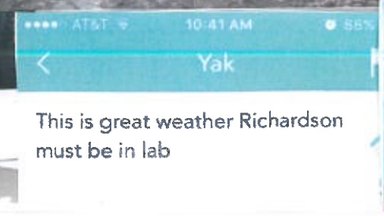


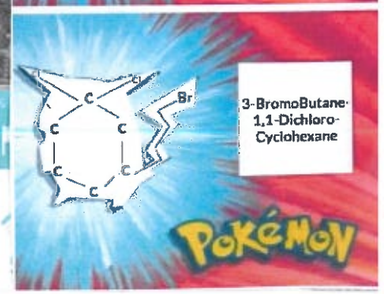



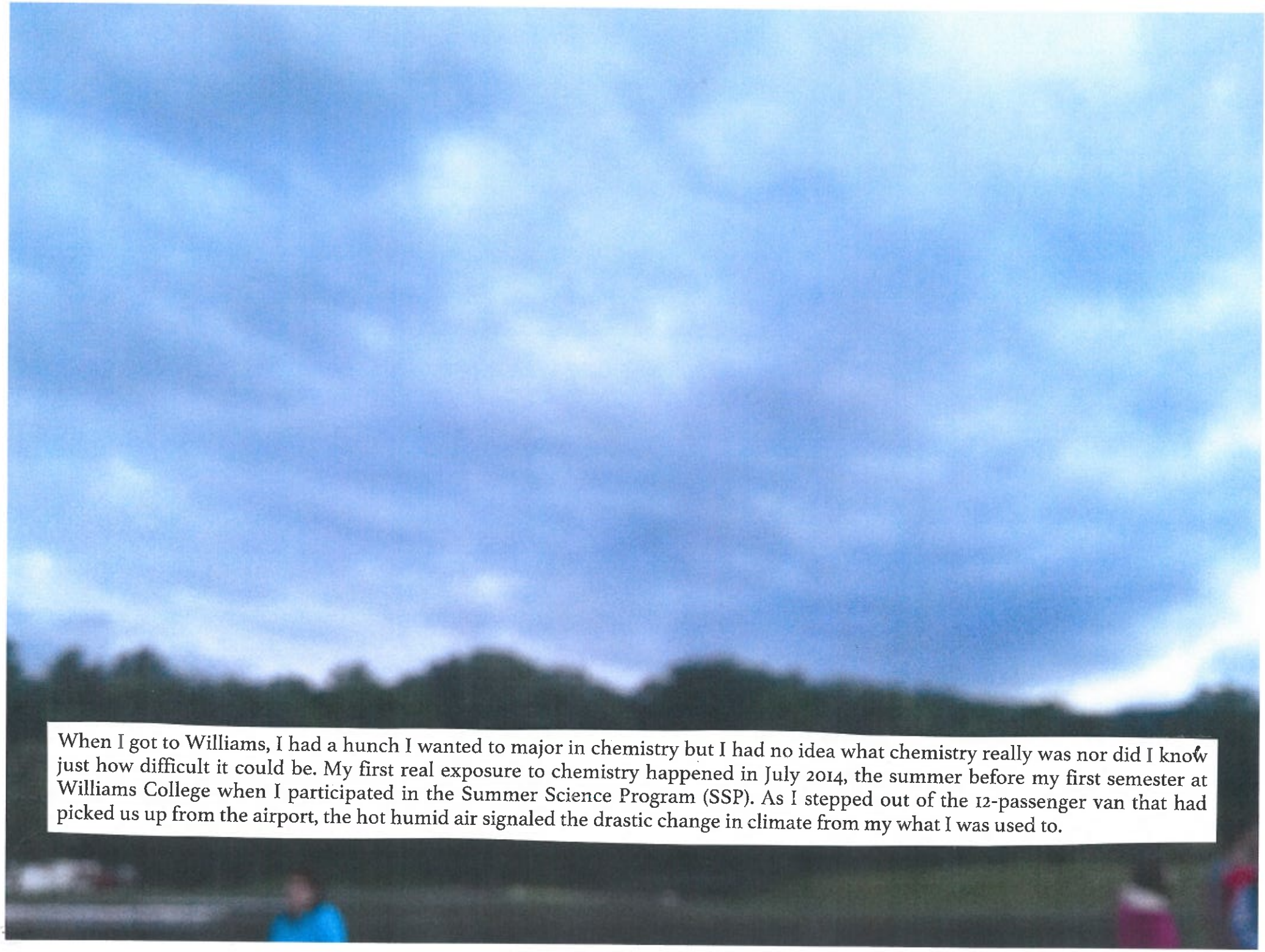




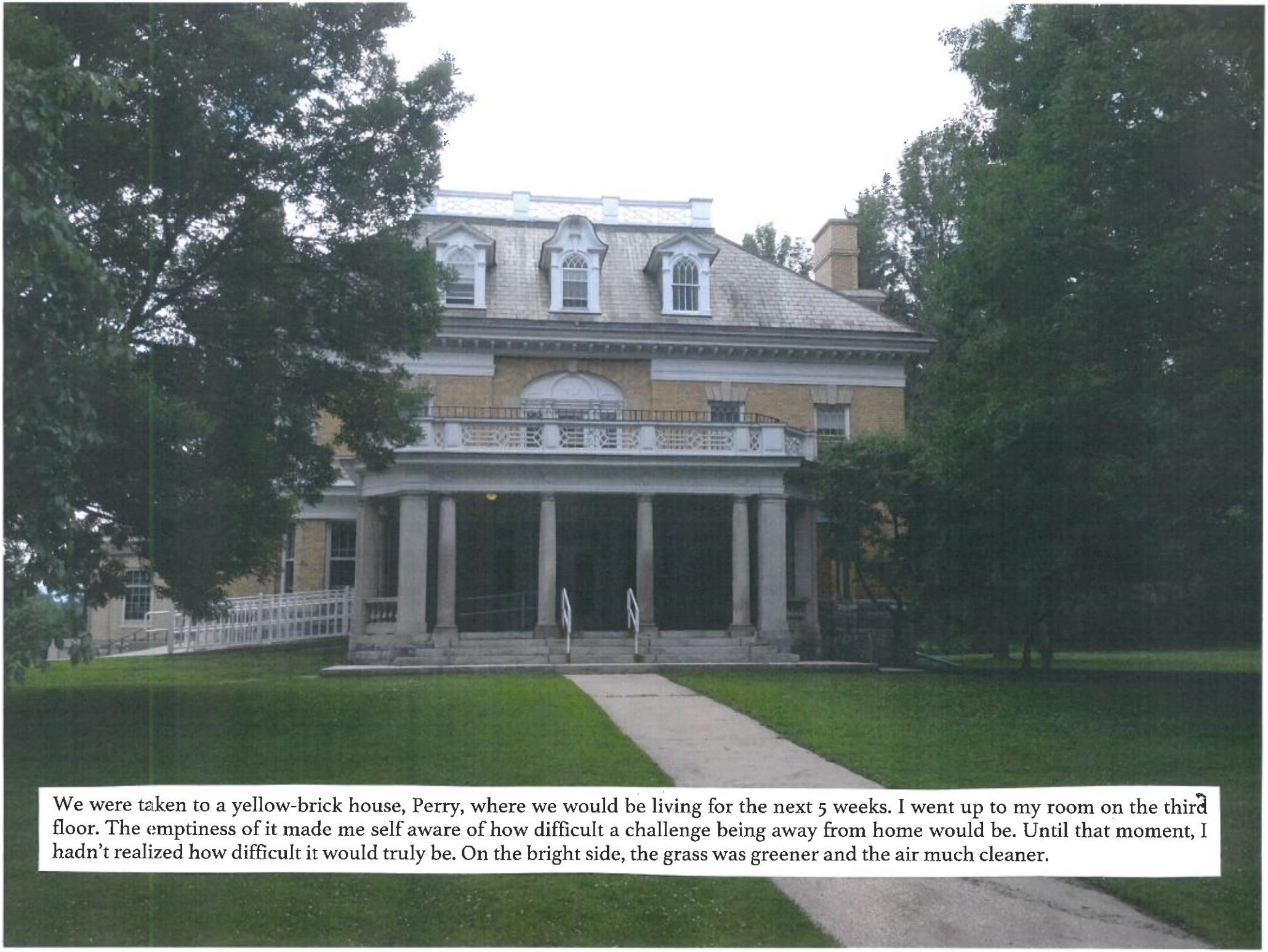




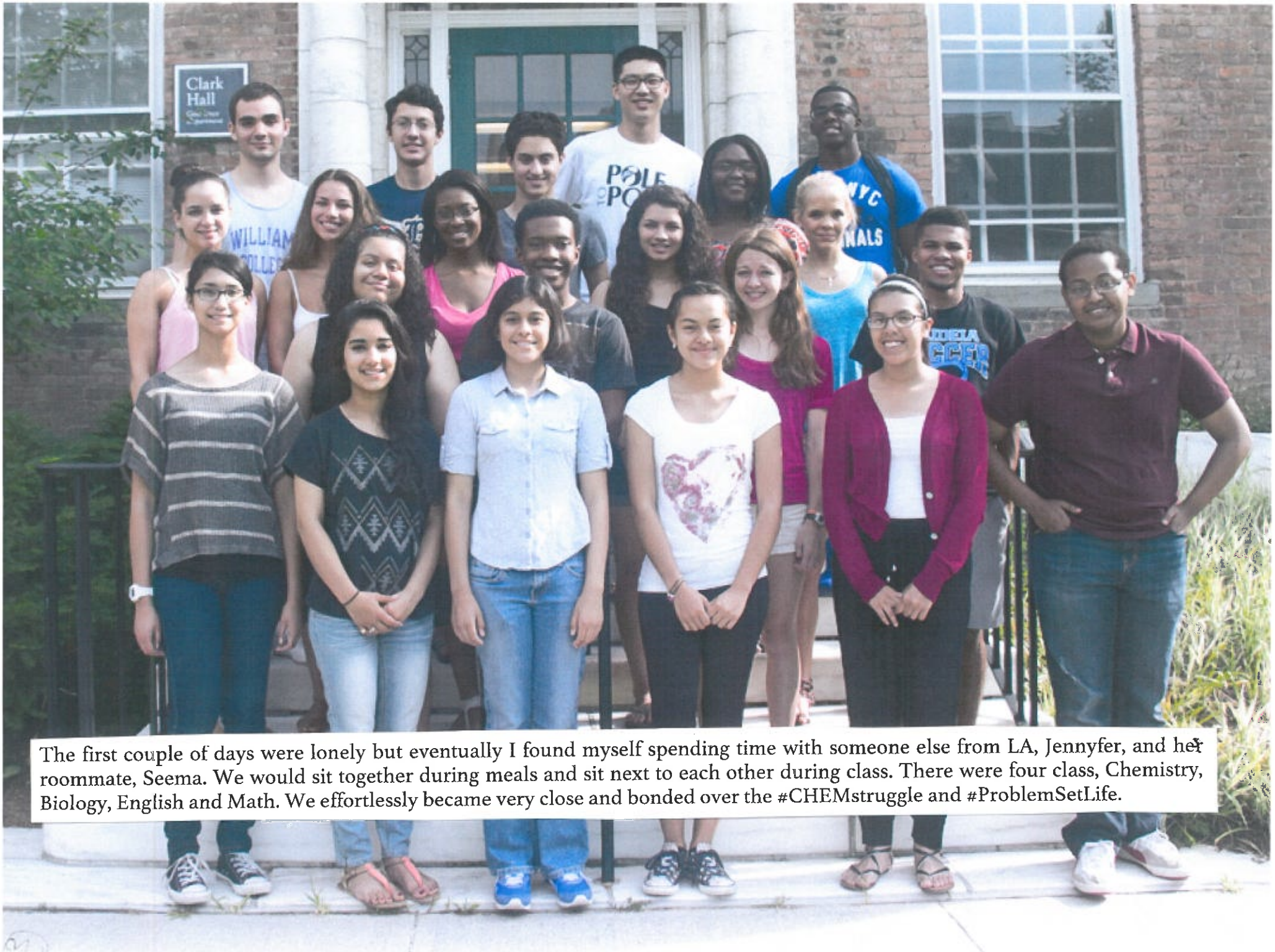




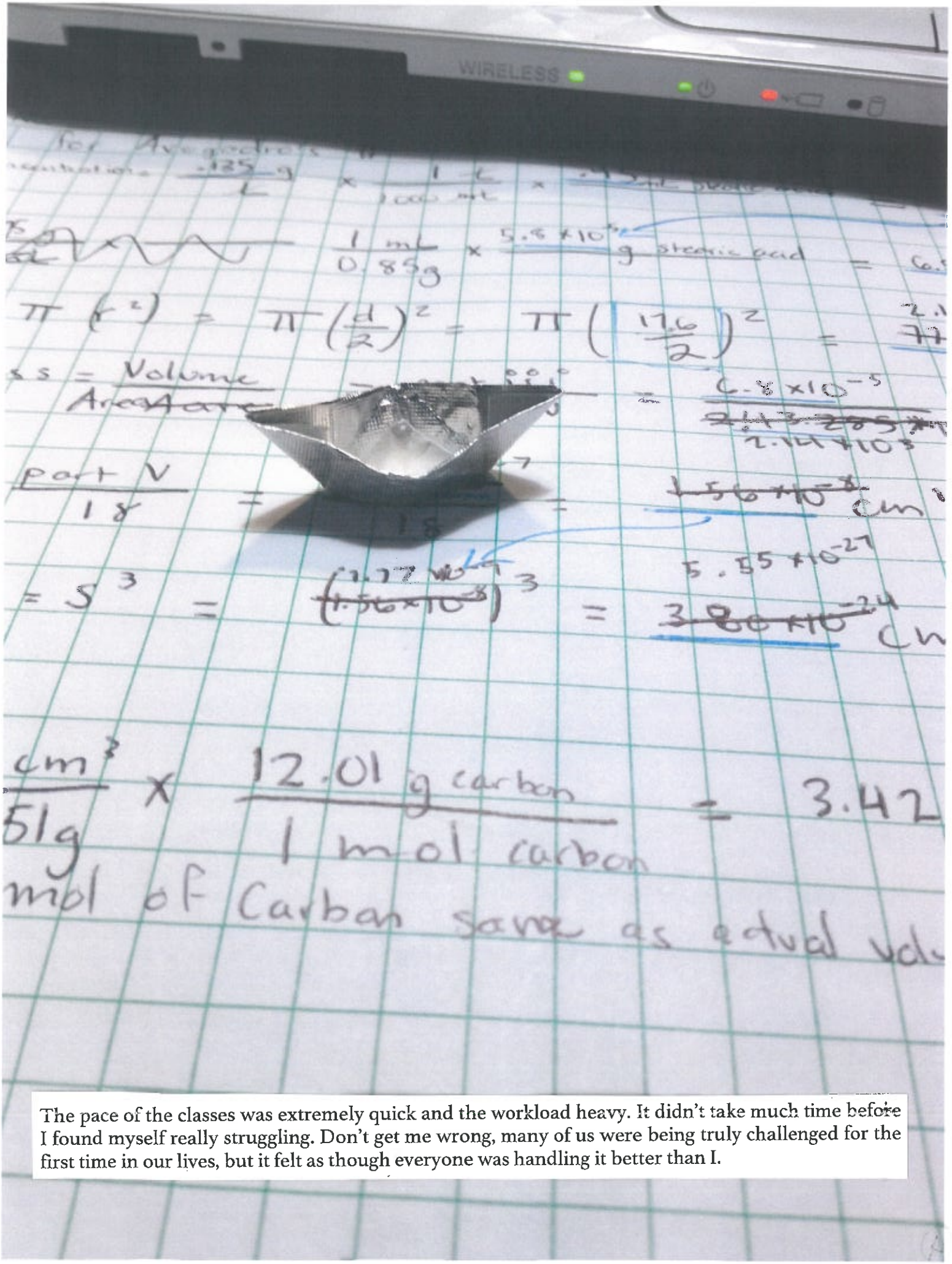
When I got to Williams, I had a hunch I wanted to major in chemistry but I had no idea what chemistry really was nor did I know just how difficult it could be. My first real exposure to chemistry happened in July 2014, the summer before my first semester at Williams College when I participated in the Summer Science Program (SSP). As I stepped out of the 12-passenger van that had picked us up from the airport, the hot humid air signaled the drastic change in climate from my what I was used to.



We were taken to a yellow-brick house, Perry, where we would be living for the next 5 weeks. I went up to my room on the third floor. The emptiness of it made me self aware of how difficult a challenge being away from home would be. Until that moment, I hadn't realized how difficult it would truly be. On the bright side, the grass was greener and the air much cleaner.




The first couple of days were lonely but eventually I found myself spending time with someone else from LA, Jennyfer, and her roommate, Seema. We would sit together during meals and sit next to each other during class. There were four class, Chemistry, Biology, English and Math. We effortlessly became very close and bonded over the #CHEMstruggle and #ProblemSetLife.




The pace of the classes was extremely quick and the workload heavy. It didn't take much time before I found myself really struggling. Don't get me wrong, many of us were being truly challenged for the first time in our lives, but it felt as though everyone was handling it better than I.

Weekly Office Hours Inbox x

**Villanueva, Miranda** 7/5/14

Hello Professor Lovett, I wanted to say thank you for taking the time to expl...

**Chip Lovett** <Charles.M.Lovett@williams.edu> 7/6/14

to me

Hi Miranda,

Thanks for your note…I'm glad you contacted me about this. We should certainly deal with this right away because it won't go any slower in the fall. Let's meet tomorrow after your lab. In the mean time you should start putting together a list of questions about the parts of your notes and the book that you don't understand. When you read the book before class you should write down questions or notes about stuff that is particularly confusing. In class you should try to get in the habit of asking questions…I know that can be hard…or at least when I periodically ask the class if something makes sense or if you understand…say no so I can stop and explain it differently and more slowly.

I wouldn't write off the chemistry major just yet. See you tomorrow.

cml

Charles M. Lovett
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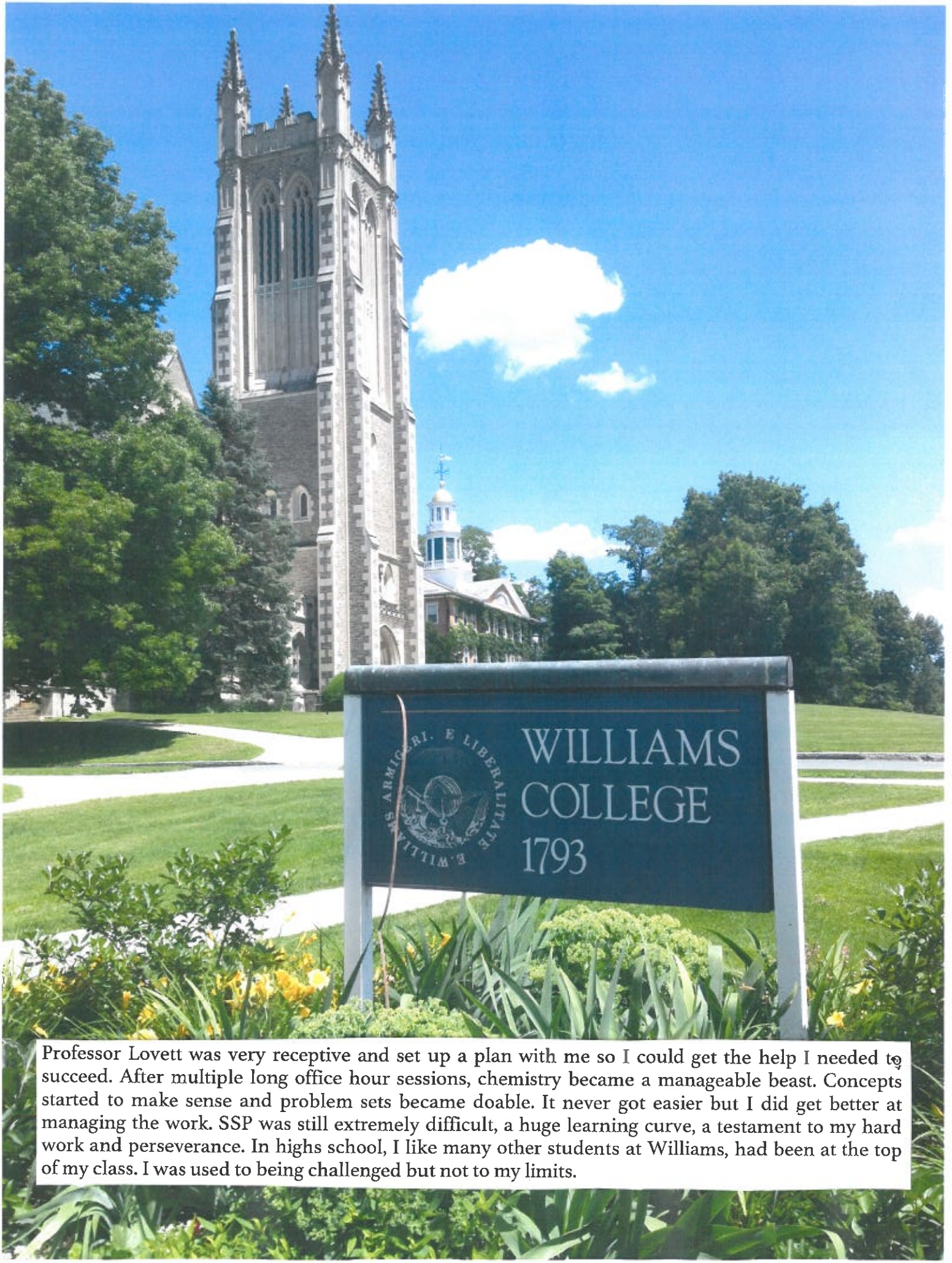
It was overwhelming. I would sit through the hour-long math class not understanding anything then, had to go to a two-hour chemistry lecture where I also did not understand. There were several times when I had to hold back the tears in the middle of lecture because I was so frustrated at myself and felt so hopeless. When we worked on our problem sets in the Perry library, everyone seemed to understand the material better than I did. Finally, I decided I needed help. I couldn't keep this up if I wanted to survive at Williams so I reached out to professor Lovett, chemistry professor and the director of SSP.




Professor Lovett was very receptive and set up a plan with me so I could get the help I needed to succeed. After multiple long office hour sessions, chemistry became a manageable beast. Concepts started to make sense and problem sets became doable. It never got easier but I did get better at managing the work. SSP was still extremely difficult, a huge learning curve, a testament to my hard work and perseverance. In highs school, I like many other students at Williams, had been at the top of my class. I was used to being challenged but not to my limits.

Williams is an intensely difficult challenge. During my freshman year, I heard from other students who had similar experiences within other STEM fields. They struggled to keep up with the material and felt isolated. Fast-forward two years to my junior year. I've heard countless more even some who decided to switch majors. Williams is a great place but it is not the best, especially not for underrepresented minorities. There isn't enough support within departments; there aren't resources in place to help them succeed and be encouraged to continue in the STEM fields. If I had not done SSP, I don't think I would have survived my first semester of chemistry let alone continue with the major. Even with SSP it hasn't been easy.

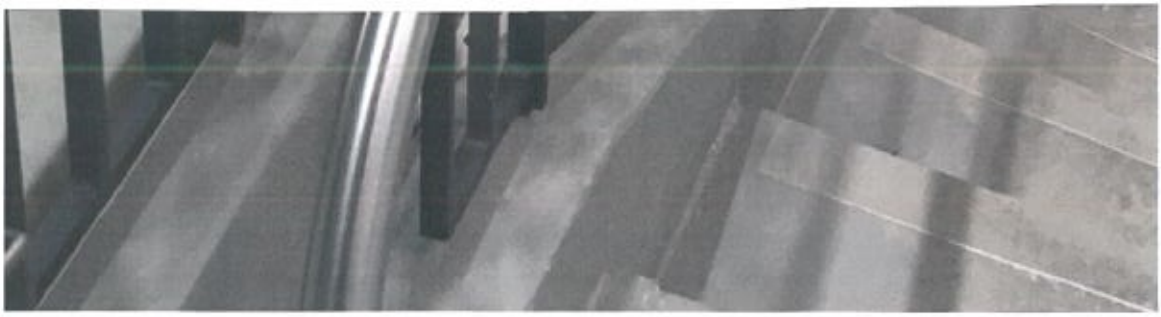
**Miranda Villanueva**
November 14 at 1:44am

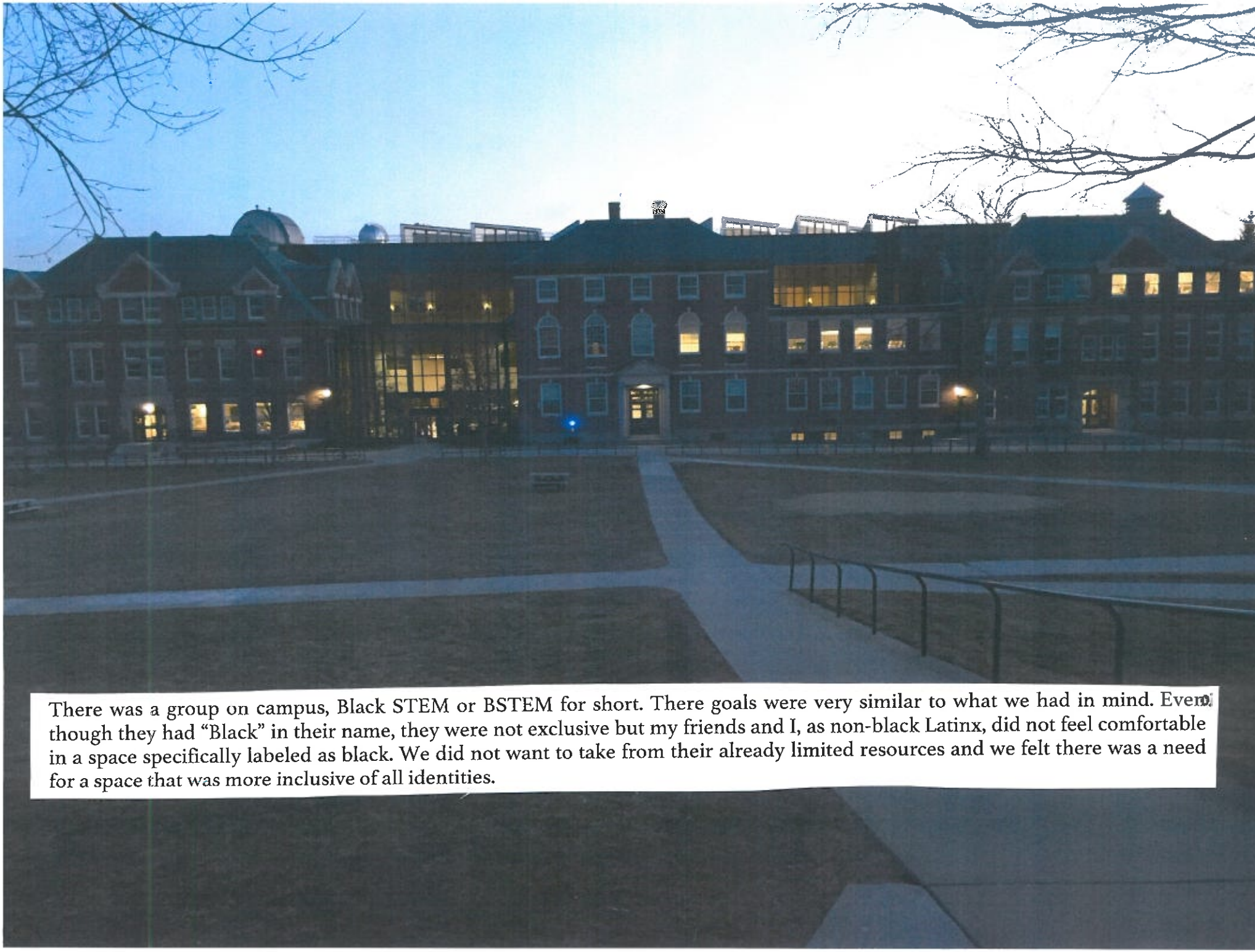
The events of this past week have brought a new perspective to things but one event in particular really got me thinking...
A woman, the mother of a prospective student, asked me if I was happy here. I was completely taken aback by the question and I'm sure that was obvious to her since it took me a while to compose myself enough to give her a "That's a good question." When I finally answered, I gave her a long winded response about how most people learn to find a balance with the overwhelming workload typical of a top liberal arts college. Admissions really should thank me for doing my best to not scare away one of their customers because it took a lot in me not to tell her the truth.
I haven't been able to get that question and my response to it out of my mind though. Why did I lie to this woman? Why did I make such an effort to justify the amount of work we're faced with at Williams?
Williams has truly conditioned me and many others to believe that an extraordinary workload is normal, that we are overreacting if we think it's too much. We are expected to never be overwhelmed or at least not show it if we are. We normalize unhealthy behaviors and laugh or judge the students who do value and care for their mental and physical well being.
So, to anyone feeling overwhelmed, stressed, sad, and/or unhappy, you are not the only one and it's completely normal to feel that way. We are only human. Williams allows us no room for life and all that comes with it.
To that mother, I'm sorry I lied to you because that may affect your son's future but thank you you because you helped me realize that I've been lying to everyone.

Like Comment Share

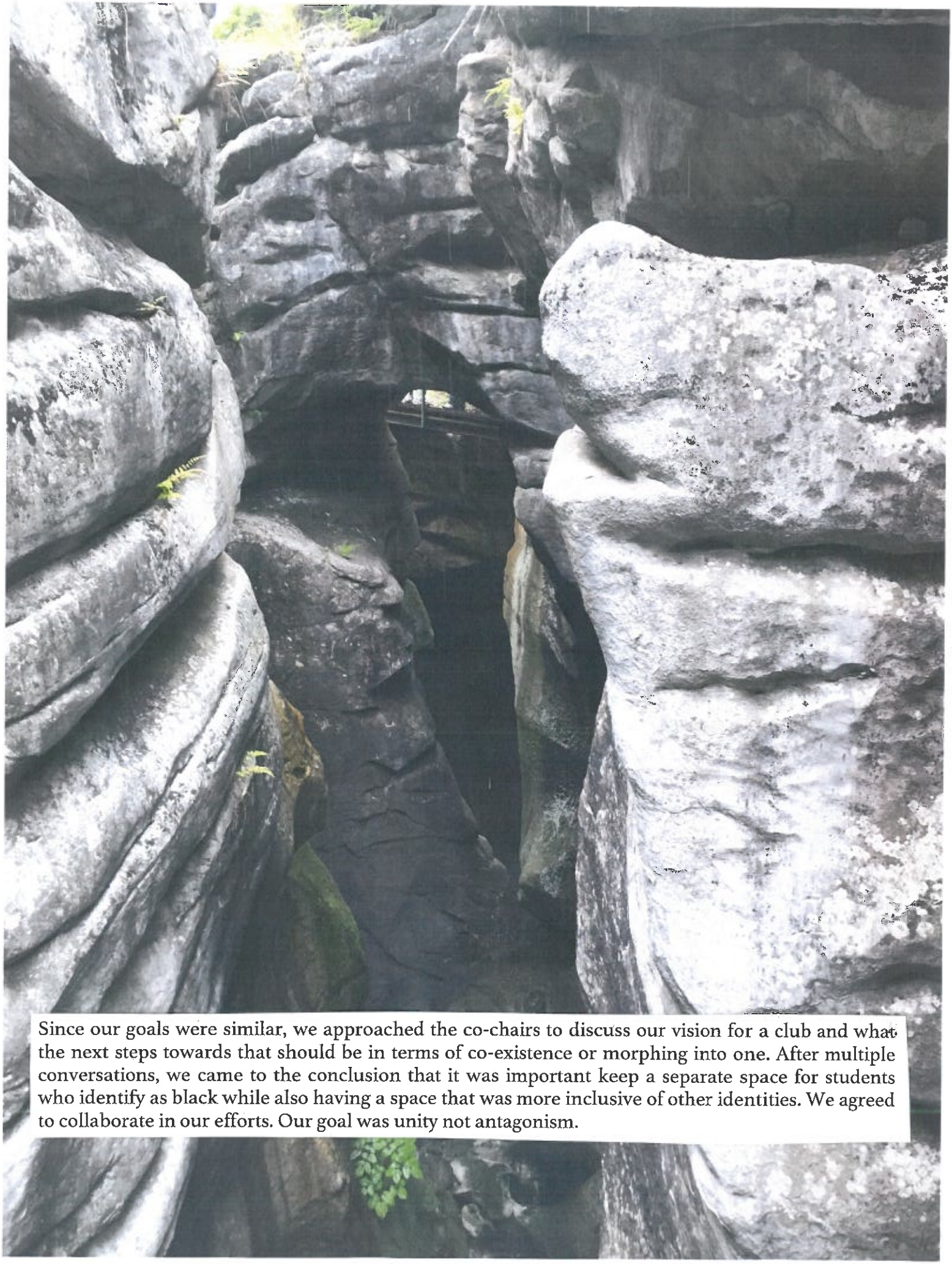
Students at Williams are used to exceeding therefore they are willing to go to extreme lengths to always make it seem like they are not only succeeding, but doing so effortlessly. Everything always has to be okay. The work always has to be manageable. You can't ever be struggling and if you are, you can't tell others because it's a *you* problem. But at the same time everyone knows this place isn't easy and that you are not the only one struggling. Then it becomes a battle of who has it worse, who slept less, who is going to more extremes to succeed. The unhealthy gets normalized. Mental and physical health gets neglected. Everything goes unspoken. It's paradoxical and puzzling.


That is why we set out to create OURSTEM+, Organization for Under-Represented students in STEM+. We felt the plus was crucial at a place like Williams because psychology and economics are quantitative subjects but are often not included in efforts to increase diversity since they don't "fit' within Science Technology Engineering and Mathematics. We wanted to highlight the need for assistance to students in the STEM+ fields and work towards providing some of that assistance. We also wanted to make the club a SACNAS (Society for the Advancement of Chicanos and Native Americans in STEM) chapter to tap into a national organization with their own resources and tools.

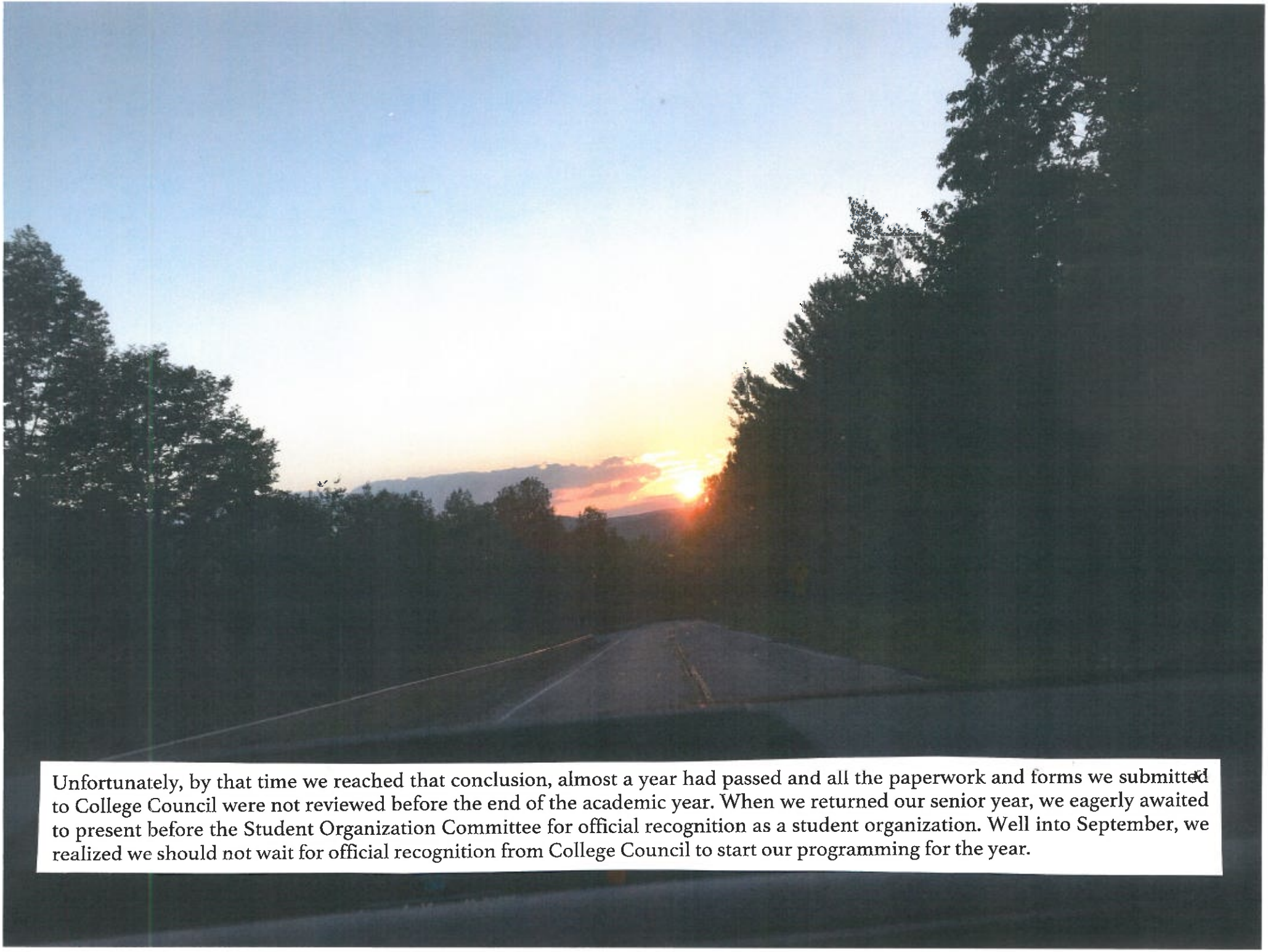




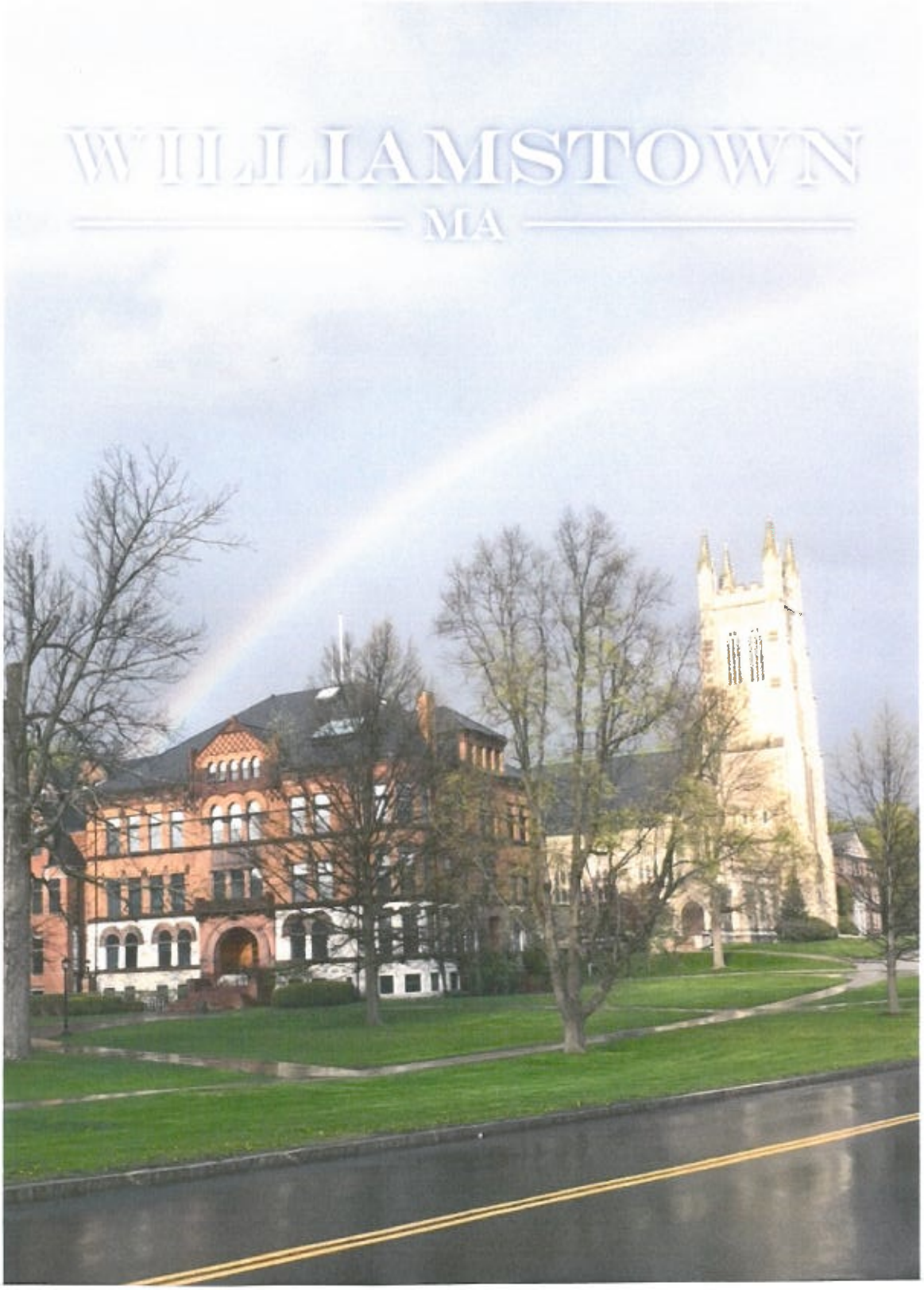
There was a group on campus, Black STEM or BSTEM for short. There goals were very similar to what we had in mind. Even though they had "Black" in their name, they were not exclusive but my friends and I, as non-black Latinx, did not feel comfortable in a space specifically labeled as black. We did not want to take from their already limited resources and we felt there was a need for a space that was more inclusive of all identities.



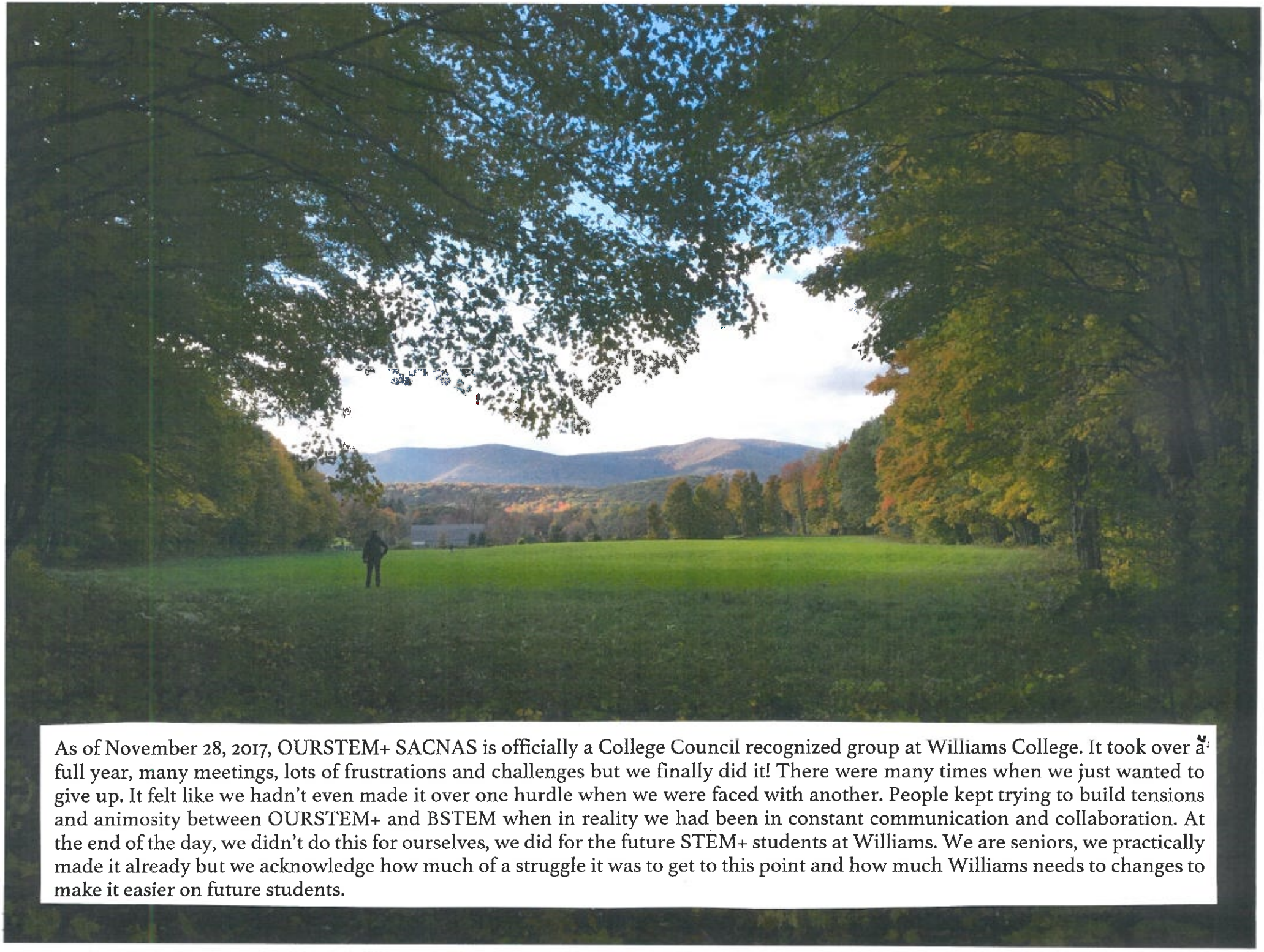
Since our goals were similar, we approached the co-chairs to discuss our vision for a club and what the next steps towards that should be in terms of co-existence or morphing into one. After multiple conversations, we came to the conclusion that it was important keep a separate space for students who identify as black while also having a space that was more inclusive of other identities. We agreed to collaborate in our efforts. Our goal was unity not antagonism.



Unfortunately, by that time we reached that conclusion, almost a year had passed and all the paperwork and forms we submitted to College Council were not reviewed before the end of the academic year. When we returned our senior year, we eagerly awaited to present before the Student Organization Committee for official recognition as a student organization. Well into September, we realized we should not wait for official recognition from College Council to start our programming for the year.

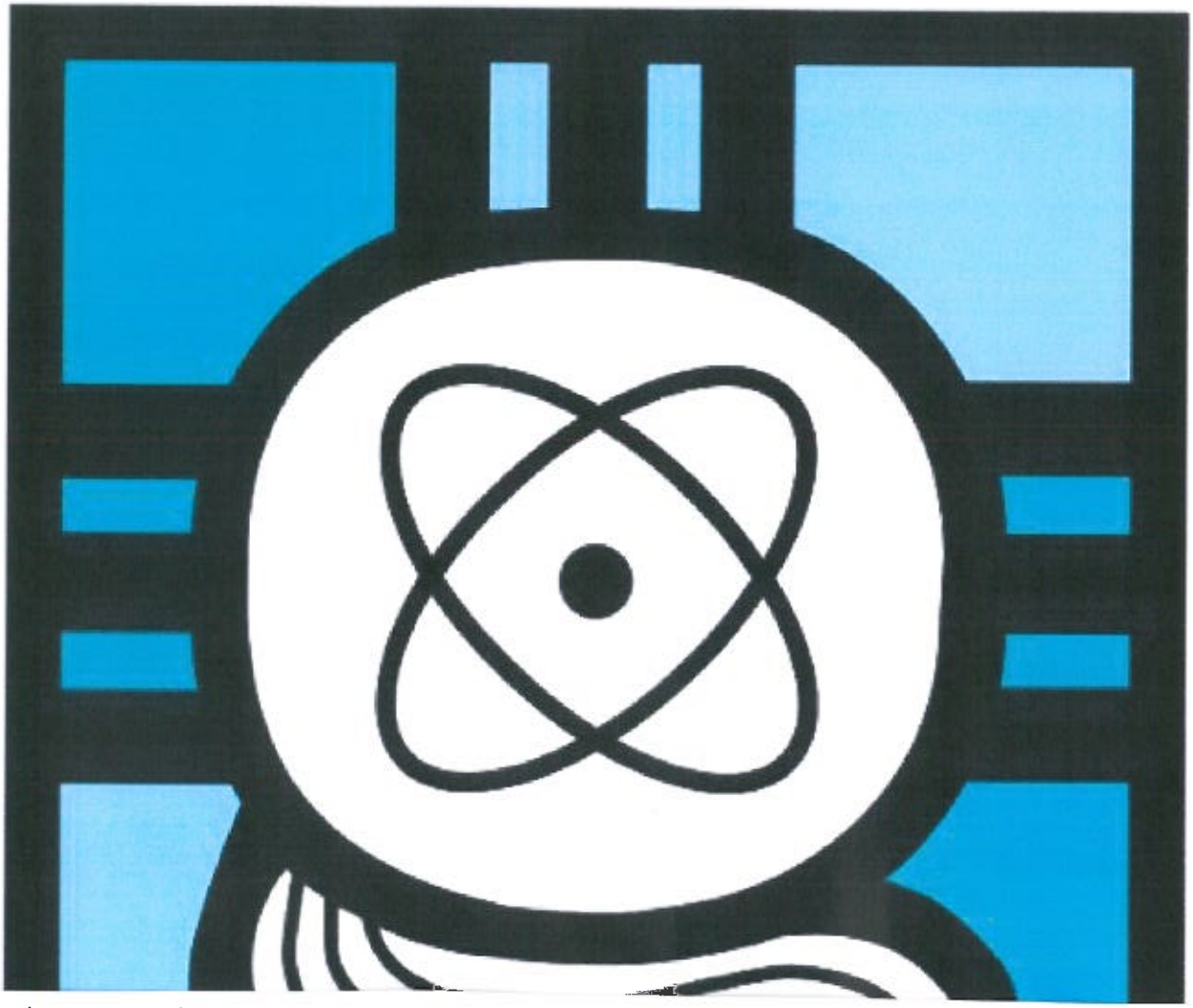



With the help of Professor Chris Goh in Chemistry, Professor Pamela Harris in Math and Laura Muller, the director of quantitative skills and peer support, OURSTEM+ fundraised to send 11 students to the SACNAS national conference in Salt Lake City, Utah, a total of roughly $11,000. One of the students was also presenting researched she had done the summer. It was a great opportunity and all of the students thoroughly enjoyed it. Since then, we have also collaborated on a summer research internship panel with BSTEM. The event was successful; several upper class students shared the internships they had done during summers.



As of November 28, 2017, OURSTEM+ SACNAS is officially a College Council recognized group at Williams College. It took over a full year, many meetings, lots of frustrations and challenges but we finally did it! There were many times when we just wanted to give up. It felt like we hadn't even made it over one hurdle when we were faced with another. People kept trying to build tensions and animosity between OURSTEM+ and BSTEM when in reality we had been in constant communication and collaboration. At the end of the day, we didn't do this for ourselves, we did for the future STEM+ students at Williams. We are seniors, we practically made it already but we acknowledge how much of a struggle it was to get to this point and how much Williams needs to changes to make it easier on future students.

# SACNAS



We don't want students to drop a major because they feel isolated or because they feel unsupported or unwelcomed. If someone is passionate about a subject and they work hard, they should be able to major in it and have the support and resources to make that happen. Our hope is that OURSTEM+ will be the first step towards that. It will be an inclusive, supportive community of students who are underrepresented in the STEM+. This is just the beginning; we are now working towards establishing a SACNAS chapter and preparing programming for next semester.

# OURSTEM+

Miranda Villanueva

**Artistic statement**

As a Latina at an elite liberal arts institution, Miranda Villanueva's comic booklets and collages emphasize the challenges faced by underrepresented groups and how these challenges are overcome. Her pieces often reflect a sense of being an outsider while investigating the choices, or lack there of, faced in unwelcoming spaces. Miranda often relates her work to her studies in chemistry or science more broadly to underscore the lack of women of color in the STEM fields. Additionally, the narrative of a child of immigrants is woven into many of her pieces. I've learned to be my own voice and pave the way to make space where underrepresented minorities have previously not had a space. "Overcoming the Williams Challenge" is a photo essay that explores the challenges faced by one student as she aspires towards a B.A. in an elite liberal arts institution. It focuses on the isolation felt by minority students in the STEM fields and their call for institutional improvements.

**Notes on Craft Talk**

It started with an idea to pass on the knowledge I've I acquired turning my time here; an education process. But then, I realized sometimes we get so caught up in educating others, helping others that we forget about ourselves. These past couple of week have really been a journey of self-care for me and I wanted this to be a continuation of theat. I still wanted to pass on the knowledge but I wanted to keep my well-being in mind. Since recounting some of the experiences I've faced recently would be draining, I shifted the focus to the positive outcomes of the work I've done here: letting it be known that there is a new club and letting its goals be known.

*Content*

We should all have the right to choose our major and though in theory we do, in practice, many departments on this campus are isolating and unwelcoming to certain populations on campus. Some students are not offered the support necessary to succeed within a certain field. My project focuses on why I came to be involved in creating a supportive network for underrepresented minorities in the STEM+ fields so that everyone can have equal access to all majors on campus.

*Form*

I wanted to ground this in the personal, my experience at Williams. To accomplish this I chose to create a photo essay using pictures I have taken throughout my time here. Each image is specifically tied to its caption whether literally or implicitly. Additionally, I created a college that encompasses my Williams experience as a chemistry major. The color palate of images was also considered when thinking of the mood of each caption. Images for the collage are sourced from phone pictures, snapchat, memes, yik yak posts, and tests. The focus on social media-derived images emphasizes the importance of these tools to college students in making their experiences relatable and laughable.

*Challenges*

Choosing a form was a challenge. I had difficulty deciding how I want to ground the narrative in the personal. Comic style allows for dialogue and voices many opinions but it also bring the challenge of creating drawings not caricatures. I decided I wanted the narrative to flow like an essay but it would be in the first person to signal it was my voice, my experience. Another challenge was settling on what parts of the narrative I wanted to focus on. Originally I wanted to focus on the challenges we faced in creating OURSTEM+ but it was emotionally exhausting so I decided to emphasize the accomplishments. Focus on the positives and the work we hope to accomplish. I also felt as though a photo essay was too plain so I created an accompanying collage from the images I've collected during my undergraduate career that are connected to chemistry or Williams. I learned that sometimes the story you want to share is not always one you can share and that you can't take on everything; don't be too ambitious. I also came to the realization that everything is related to democracy in some way. Whether we have the right to choose, for the people, declaring a major, or whether decisions are made for us, the resources made available to us, democracy or the lack of is always related.