

Sustainability in Campus Life: The Changing of Behavior

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Introduction

In the first Sustainability Strategic Plan for Emory, which was developed in 2006, the vision committee identified the goal that “participants in the Emory community will be ambassadors for the principles of sustainable living and a healthful future, both here and elsewhere.” This vision identifies that part of Emory’s intention is to cultivate and develop sustainability practices and connections through the individuals—both students and employees—at Emory. Furthermore, the hope is that these new sustainable living habits would continue through their Emory experience and beyond.

Sustainability involves the triple bottom line, which is defined with social, economic and environmental dimensions. In a world where social, economic and environmental issues are so prevalent it is essential to understand the interconnectedness of all of them. Every individual has a stake within these dimensions and thus within sustainability. Allowing a space where students, faculty, and staff can identify and learn about their role in sustainability and then take time to change their action and behavior is essential for the success of sustainability progress at Emory.

Emory’s Campus Life Division shares this goal of transforming behavior. Its mission statement is “Emory Campus Life cultivates a welcoming community that is committed to developing skills necessary for lifelong success and positive transformation in the world” (Emory Campus Life Website 2017). Its key concepts echo sustainability goals: “commitment across the university in developing wellness and useful personal and life skills; engagement in practices that consider the needs of the present generation without compromising future generations’ needs” (Campus Life 2017).

Campus Life is about Emory’s culture and community. Through the work of the Division of Campus life, Emory students have the opportunity to first get exposed to the priority of Emory’s sustainability, learn about the triple bottom line, and begin to shape and shift their individual behavior and habits regarding sustainability. This behavior encompasses many domains including waste, water, energy, academics, and extracurricular activities. This report will detail the sustainability history of Campus Life starting with the late 1990s continuing to today. The topics of this report include Early Days: Starting with Recycling, Expanding Sustainability and Programming, and Sustainability in a Broader Campus: Changing Culture and Behavior.

Methods

This Report was written in Spring of 2017, as part of the course Writing Emory’s Sustainability History (ANT 385W) taught by Dr. Peggy Barlett. It builds on four Reports completed in 2008:

- The Sparks of Sustainable Energy: Sustainable History at Emory (Mona Patel)
- Constructing a Movement, One Building at a Time: The History of Green Buildings at Emory University (Micah Hahn)
- Alternative Transportation (Andrew M. Foote)
- “Going Into a Place of Beauty”: Forest Preservation and Restoration (Whitney Easton)

Our 2017 class chose eight sectors of action for research and interviews, to contribute to the oral and written history of sustainability efforts at Emory. The seven other topics are:

- Institutionalization of Change: A History of Emory's Office of Sustainability Initiatives (Kristen Kaufman)
- Teaching the Future: Academic Infusion of Sustainability at Emory (Meggie Stewart)
- Carbon, Climate and Co-Generation: A History of Emory's Energy and Climate Commitments (Katelyn Boisvert)
- Greenspace at Emory: Finding the Balance (Orli Hendler)
- Sustainable Healthcare at Emory University (Lauren Balotin)
- Emory's History of Waste Diversion and Recycling (Amelia Howell)
- Stormwater Management and Water Conservation at Emory University (Kelly Endres)

This Report was based on written materials, available quantitative and qualitative data, and interviews. Background information was obtained from the Emory Report and the Emory Office of Sustainability website. Interviews were scheduled via email, and in the revision process, interviewees were given the chance to review the document and provide feedback. We are especially grateful to interviewees for sharing their time and insights with us, and also to Ciannat Howett and other members of the Office of Sustainability for their generous help in constructing these histories. The individuals interviewed for this Report are listed below, with the date of interview:

Kyle Griffith: Residence Life Director for Turman and Hamilton Holmes Residential Halls: Living in the 21st Century (2/9/2017)

Bridget Guernsey Riordan: Assistant Vice President of Alumni Relations and former Dean of Students (2/13/2017)

Mary Clements: Chief of staff of for the VP in Campus Services and former Campus Life staff member (2/16/2017)

Abby Bok: Living Green Graduate Fellow (2/24/2017)

Frank Gaertner: Associate Director of Advising at Office of Undergraduate Education (2/27/2017)

Scott Rausch: Senior Director of Residence Life (3/2/2017)

Levin Arnsperger: Faculty Resident at Clairmont Campus (3/3/2017)

Lisa Loveall: Director of SILT: Student, Involvement, Leadership and Transition (3/20/2017)

Emily-Cumbie Drake: Emory College Graduate Class of 2010 and Former Sustainability Program Coordinator for the Office of Sustainability Initiatives (3/24/2017)

Katelyn Boisvert: Residence Hall Association Sustainability Chair, Turmilton Hall chair (3/21/2017)

Orli Hendler: Residential Assistant for the Living Green Dorm (3/22/2017)

Daivik Malhotra: Senior Residential Assistant for the Living Green Dorm (3/26/2017)

Early Days: Starting with Recycling

When talking about the early days of sustainability in Emory's Campus Life division, Frank Gaertner, former area coordinator in Residence Life, clarified that the term sustainability has to be omitted. For many years the only focus of action was recycling, which excluded a full range

of sustainable endeavors like energy, water, etc. The first environmental action, until the Office of Sustainability Initiatives began in 2006, was recycling (Gaertner 2017). Gaertner, worked alongside Elaine Gossett, who worked in Campus Services, to pilot a recycling program in residence halls. Emory Recycles, Emory's recycling facility, was growing and Gossett believed in the importance of a decrease of waste and wanted to make a change. Gaertner remembers happily agreeing to work with Gossett, because her drive made him want to make this effort alongside her. He faced a major hurdle at first by convincing other people to dedicate funds towards the purchase of recycling containers. It took much persistence and coordination to get recycling running in Campus Life. This program was introduced and implemented in 1996; and in 1997 they began with the Turman Residential Center, at that time located on Haygood Road.

The takeoff of this initiative began with Campus Life purchasing recycling bins and putting them in individual rooms within the residence hall. Students were expected to empty their own bins into larger dumpster/receptacles outside each dorm. In order to educate students, when Gaertner and Gossett first started the program, they printed brochures to explain recycling processes. These brochures were an effort of advocacy throughout Campus Life. According to Gaertner, there was very little awareness of recycling and sustainability at that point in time, which was a major challenge for the program to run successfully; it just was not on people's radar screens in the early days. Emory students had yet to connect with sustainability on an emotional and intellectual level, nor was there much incentive to recycle (Gaertner 2017). Gaertner and his team got a campaign running, but there was little campus pressure to participate.

To add to these difficulties, there were also structural problems with the recycling. For instance, students started using the bins in their dorms to put alcohol in; this forced the administration to change the design of the recycling bins. Another roadblock was that the custodial staff was concerned the bins would attract bugs or rats (Gaertner 2017). All of these were valid concerns and difficulties in the early days of Campus Life recycling efforts. Nevertheless, Campus Life had begun recycling, and through outspoken individuals and persistent effort, it started to grow.

White paper and glass were recycled in the pilot program. "For the first eight years of Emory's recycling program, different categories of recyclables were collected on campus and then shipped at the University's expense, to an off-campus processing center" (Terrazas 1998). Emory University was doing recycling before it started in the residence halls, but after the first few years of recycling from the residence halls, the University opened a new recycling center on Peavine Creek Road, in 1998. This building and expanded project was spearheaded by Gossett, and it completely changed the culture of recycling at Emory. As recycling became more successful in Residence Life, it spread to more buildings. With new buildings involved, key individuals had continuously to fight to ensure recycling action was taking place. This demonstrates how even with previous strides, behavior change can still happen slowly. When the Student Activity and Academic Center (SAAC) opened on the Clairmont Campus in February of 2003, Gaertner worked alongside Mary Clements, who was in charge of housing at the SAAC, to make sure there were bins in the new building (Clements 2017). Through persistence and effort over many years, recycling in residence halls became normal and expected at Emory. Nowadays every single Residence Hall has recycling bins which can handle multiple waste streams. The newest dorms have recycling rooms dedicated to proper waste disposal. For more information on waste read Amelia Howell's report on "Emory's History of Waste Diversion and Recycling" (2017).

Next Steps: Expanding Sustainability and Programing

The term sustainability was first utilized and adopted in Emory and Campus Life when Ciannat Howett was hired as the Director of the new Office of Sustainability Initiatives (OSI) in 2006 at Emory. Howett is the current director of OSI and has been involved since its beginning. Once OSI introduced the potential of sustainability, then different types of environmental action opened up dramatically, according to Gaertner. Sustainability was one of the directions Emory was moving, and Campus Life joined that momentum. For more information on OSI, read Kristen Kaufman's report, "Institutionalization of Change: A History of Emory's Office of Sustainability Initiatives" (2017).

Residence Life

Living Green Dorm

Emory Campus Life created themed Living Learning Communities in residence halls in 2007. A Green Living program for first year students incorporated sustainable infrastructure, education, and programming to influence the behavior and culture of an Emory's student's residence hall experience. There was a lot of push from Emory to get to a designation from AASHE, which is the Association for the Advancement of Sustainability in Higher Education, and therefore a lot of resources and effort were put into Emory's sustainability goals (Rausch 2017). The Living Green Residence Hall program assisted in Emory's earning a gold rating with AASHE.

In 2008, the living green dorm opened at Few and Evans Hall, popularly referred to as Fevans. Kyle Griffith commented that this Living Learning Community was crucial in the sustainability movement for Campus Life and was really made possible by the change happening with the Office of Sustainability Initiatives (Griffith 2017). The living green dorm was given its theme by a committee consisting of faculty, staff and students.

Part of what made Fevans an exemplary green program was the building's sustainability infrastructure and technology. Fevans was new at the time, and Emory architects added many sustainability features to make the building a showcase. Rainwater from the roof flows down visible runnels to a cistern below a wooded hillside. The collected rainwater is then pumped by three solar panels for use in dual-flush toilets. The stormwater reclamation system provides 700,000 gallons of water per year, which represents 100% of the water required for toilet flushing (Shivkumar 2014). Fevans also recorded the energy and water use of the building and had an easily accessible screen in the lobby to keep students informed. Ciannat Howett said, "In this way, a new social norm is created. When these students become homeowners, they may consider a similar system for their homes. Over time, then, the carbon-intensive process of using huge volumes of drinking water to flush toilets may become a relic of bygone days" (Howett 2010). This building brought in new technology that incorporated sustainability into Campus Life. For more about Fevans water conservation refer to Kelly Endres' report, "Stormwater Management and Water Conservation at Emory University" (2017).



Figure 1: Exterior of Few and Evans Hall showing solar panels

The commitment to a sustainable living environment starts from the management and staff of the living green dorm. The first Residence Hall Director (RHD) brought on for Fevans was Judith Pannell, who started in 2008. Carol So and Eun Sol Lee were the RHDs after Judith Pannell was promoted to Area Director; each of them had Few and Evans halls, respectively. However, when Kyle Griffith started in 2011, he revamped the sustainability education and programming that Pannell had initiated. According to Frank Gaertner, “when Kyle started was when the sustainable education and programming took off.” Griffith claims that one of his major challenges was developing environmental education and programming, since the RHDs prior to him had yet to really embrace the living green theme. With this he worked hard to train the best staff he could and change the ideology and truly emphasize sustainable living.

Fevans remained the living green dorm from 2008, when it opened, to 2014. In 2015 Hamilton Holmes became the living green dorm. The reasoning behind the move was that Emory Campus Life needed to update sophomore facilities to accommodate a request from Greek life students. Members of fraternities and sororities who did not have space on Eagle Row wanted to live closer to Greek life, and therefore Evans became a space for Greek students. This change upset the Office of Sustainability Initiatives, since Fevans had started as Emory’s living green dorm and OSI had played a crucial role in the planning of the original construction. There was concern about the future of sustainability in Campus Life. After Howett, Rausch, and others had multiple conversations, Residence Life decided to keep a living green dorm, but it was moved it to Hamilton Holmes, a smaller first year hall with similar sustainable features. New promises were made in terms of the overlap between campus life and sustainability: a change in training of residence life staff, and a graduate fellow in the residence hall, whose focus is programming in sustainability living (Rausch 2017).

Other Residence Halls

The living green residence hall is a “hyperactive version of what happens across the board in other buildings” (Rausch 2017). Other residence halls, such as the Complex, Harris, Woodruff and Clairmont, are not as up-to-date with sustainable technology. Every residence hall has some sustainable infrastructure such as multiple waste streams and signage for sustainability action. In addition, there is an effort for education and awareness to be emphasized for all of Residence Life. However, because of the difference in class year, number of students, and building facilities, there are a lot of challenges that come about when trying to enforce Campus Life sustainable actions campus-wide. For example, in the Undergraduate Residential Center (URC) and Clairmont Residential Center (CRC) on the Clairmont campus, it is hard to find a place to put recycling bins because of the layout of buildings. There is no convenient area to put the bins where they are easily accessible at every level of the building; it is much easier for students to put their waste in the trash chute. In older halls such as Complex, Woodruff, Harris and Dobbs, recycling bins are placed in the hallway, compared to newer halls that have recycling rooms on each floor. Also because of the difference in age and design of the building, energy conservation and water conservation vary tremendously. For instance, Fevans has an impressive water system that recycles rainwater. Raoul residence hall, Emory’s most recently built hall, is connected with reclaimed water from the Emory WaterHub facility. Longstreet Means Hall and Hamilton Holmes Hall also have a greywater system. By these structural differences the impact of the residence halls can vary dramatically.

Beyond structural differences, Emory has made an effort to create university wide initiatives and curriculum for sustainability. In 2007 the E.A.G.L.E.T program, Efficient and Green Living at Emory Today, an educational initiatives program, was started by Mary Clements and Elizabeth Cox (Clements 2017). This program was centered on the living green dorm, but it was part of an initiative that spread to all residence halls. Mary and her team also did smaller projects related to sustainability. For instance, OSI created door hangers with tips on green living, which Residence Life helped install. Campus Life created an energy star guide for back to school purposes that was distributed to students (Clements 2017). In addition, as part of this program and Mary’s work, Campus Life worked hand in hand with Campus Services to improve facilities and waste management to improve sustainability work.

There are general basic universal practices seen throughout residence halls, such as waste bins and hydration stations. However, larger level initiatives and programing, in other halls besides the living green dorm, came from key individuals who dedicated time and effort to make sustainable change. A number of those efforts came from Office of Sustainability Incentives grants, which give funding for individuals to do a sustainability-related project or initiative. A past RA, Caroline Plott, created a green roof on at Complex residence hall through an incentive grant. The Greeks Go Green organization, led by Jonathan Kaminski, used an OSI grant to create a Greek Row garden. Other projects have included more hydration stations, more sustainability signage, shower timers, occupancy sensor switches, and much more. These projects and more like these have all applied for and utilized the incentives funds to enhance sustainability within Campus Life.



Figure 2 and 3: The Greek Row Garden



Figure 4: The Green Roof on Complex Hall

It is still important to note that even though initiatives and infrastructure may exist across halls, the amount of student engagement is not uniform. According to a current first-year student, Katelyn Boisvert, sustainability can be off putting if you do not understand it. Every student entering Emory has a different background with sustainability, and students who are not naturally engaged or do not have a lot of previous knowledge may feel excluded. One example Boisvert gives concerns international students on her floor. In the floor's recycling room, Boisvert witnessed international students struggling to sort their waste properly since the different bins are never explained to them. As a result, recycling and sustainable action may seem intimidating or exclusive if students cannot participate comfortably. It will be difficult for them to become sustainability ambassadors, as identified in the 2006 Sustainability Vision.

Residence Life Office

The Residence Life and Housing offices themselves also seek to be a model in sustainability. In the Fall of 2016, the Residence Life Office committed to becoming a "green office," as part of OSI's certification program (Rausch 2017). They have reduced paper consumption, reduced energy, and put plants in the office. In fact, they have completely converted to paperless meetings and have electronic display boards as an alternative to paper handouts. The green office certification emerged as part of Residence's Life five-year strategic plan, and it demonstrates a commitment to sustainability beyond student life. It also shows a deeper level of change on an administrative level; Emory practices what it preaches. However, with that said, the Residence Life and Housing Office has not made sustainability formally a part of its strategic plan, which may slow innovations in programming.

Building Turn Down

During long school breaks, Residence Life runs a heating and air conditioning turn down initiative. This is an OSI initiative piloted in the College and later adopted by Campus Life. The building turn down significantly decreases the heating and cooling services to the first and second year halls, which is one reason students are not allowed to stay over extended breaks. At these times, thermostats are turned down, the water system is completely turned off, and the power usage in the building greatly decreased. This initiative significantly saves energy and water. Residence Life is not able to do the turn off for upper-class housing because many

students stay during the breaks. However, Clairmont students are highly encouraged to take the same initiative within their apartments if they are not staying over the break (Rausch 2017).

Residence Life Training

Sustainability training of the Residence Life staff is essential for education and advocacy to pass down to the residents of the buildings. Prior to 2015, there was not a lot implemented in terms of sustainability training, though OSI did have an hour or two within the August RA training program. There was no universal standard or training across the University for Campus Life staff. The training that existed affected only some staff. For instance, Kyle Griffith made sure his staff had supplemental sustainability training; however this was not true for every Residence Hall director or Complex director.

When the living green dorm switched from Fevans to Hamilton Holmes in the fall of 2015, an enhanced sustainability curriculum for staff was another change. All Residence Life student staff were required to complete an online sustainability training module over the summer and had to pass a nine question quiz (Griffith 2017). The summer module for sustainability, put together by OSI, discusses why sustainability is important and why Emory cares about it. Orli Hendler, a current RA in the living green dorm, reports that the module also discusses how OSI is available to work with the Residence Life staff throughout the year. There is a section on recycling and composting and other important components to sustainable living (Hendler 2017). Sustainability education is continued during Residence Life training. All of the student staff continue to hear a one hour presentation by Taylor Spicer, Sustainability Programs Coordinator, from OSI. The presentation exposes Residence Life staff to what OSI is and what they do, it refreshes their sustainability education, and gives them knowledge on how they can educate their residents (Rausch 2017). Hendler claims that the training provided resources for staff and did not overload them with information.

Sustainability training continues into the school year as well. Every RA has to take an RA class as part of their job requirement, and during this class there is a sustainability component. Every RA instructor has a different way of incorporating the sustainability portion. For example, in Scott Rausch's classes, he took his RAs on a sustainability walk around campus. The goal and hope for these programs is that by educating the staff, they will then be able to effectively educate their residents. Scott Rausch claims the goal of sustainability in Residence Life is to "lower the ecological footprint of an individual student."

Within the living green hall, Kyle Griffith has innovated several activities to educate his own staff. One example is that Griffith would have a meal with everyone, and then at the end of the meal, he would educate all the SAs and RAs about how to sort everything into compostable and recyclable containers. With this method, he would create community and combine important sustainability lessons. Griffith holds his staff to a standard when it comes to sustainability. If their work is not sufficient, he will make the staff redo it. By holding people accountable to their jobs as RAs in the sustainability hall, he is able to lead the most sustainably effective staff he can. He knows the staff do not make all the most sustainable decisions and actions 100% of the time, but perfection cannot get in the way of action. He treats sustainability within the living green hall as a trickle-down effect (Griffith 2017). Within the past two years, with the addition of Abby Bok's position as graduate resident, she has assisted tremendously in training the RAs and SAs. She helps the Residence Life staff plan sustainably-oriented programming and events (Bok

2017). According to Griffith, besides the living green hall, sustainability is not emphasized in other dorms on campus, past the training everyone receives. Instead other halls many have a sustainable focus within certain individuals' actions, but not the hall as a whole.

Sustainable Education in Residential Life

True behavior and culture change within student culture comes from awareness and education. To create the sustainable ambassadors that the Sustainability Vision report identified, curriculum and initiatives were created through Residence Life that utilized the infrastructure and training that had been created. One of earliest efforts for sustainability within Residence Life, were stickers to encourage people to turn off the lights (Guernsey-Riordan 2017). There was an increase in the effort of passive advertisement, in order to get people to start thinking and discussing sustainability.

The living green dorm offered a huge opportunity to develop sustainable behavior change, and Kyle Griffith has full range and availability to educate to living green community (Griffith 2017). When Griffith first started working at Emory, the major focus of the sustainability in Campus Life was talking about reducing waste and resources on a personal level. Griffith shifted away from this model of sustainability education and brought about a more systematic approach. Griffith's approach to sustainability education incorporates the three E's: environment, economy and equity. "The environment sector is what people relate to the most. There is a lot of support and push for this sector, and generally many individuals just categorize sustainable action with this category. Economy is creating strong local cash streams, local business, and livelihood. Equity is social justice around the environment including regulations, racism etc." (Griffith 2017). All three E's integrate with each other and should be considered when discussing, educating, and programming about sustainability, according to Griffith. The current Senior Residential Advisor (SRA), Daivik Malhotra of the living green dorm, reports that "Every month we post a new sustainability topic on our floor bulletin board. The goal of this is to encompass the three E's of sustainability. We make the material interactive and informative so that there is academic engagement outside of the classroom."

Griffith claims that sometimes the actions of Campus Life are being motivated by guilt, and there can be a sense of laziness within Campus Life, especially coming from students. Some individuals are not educated on a topic and they are not able to see the impact of their action. This connects back to the idea of systems thinking and the three E's. A lot of individuals cannot visibly see how their actions, within sustainability and campus life, and beyond, make an impact on the system. This drives Griffith to take action in order to get residents to think more about the impact of their choices. Another challenge Griffith faces with initiative and programming is that it is difficult to create curriculum that caters to every resident's past knowledge of sustainability, since every student comes in with their own understanding. Griffith knows that he cannot change everything in just one year, but he has seen habitual changes within his residents. What Griffith can do is to raise sustainability literacy, and he really tries to push sustainability as a value (Griffith 2017).

Addition of a Graduate Fellow in the Living Green Dorm

When Abby Bok started two years ago, programming and education in the living green residence hall continued to grow and became more enhanced. Bok holds the graduate fellow position for the living green dorm. With this position she is able to get her graduate degree, while living in Turman Hall and enhancing the living green experience. The purpose for this position is to make the themes of the residence halls come alive for students. Bok's goal is to make the residence hall a "living classroom" (Bok 2017). One initiative was to create weekly cooking nights, based on food from the community supported agriculture (CSA) share purchased for the hall. This was Griffith's original idea that Bok took on. With the CSA, Bok models the benefits of seasonal cooking. She cooks every week with students, and while cooking she leads a talk about sustainability. "By educating them about sustainable food, now students are more educated for the future and the CSA demonstrates how to make fair food affordable" (Bok 2017). Another program initiative Bok started is documentary movie nights every month. The movies are centered on the sustainable theme of the month, for example water or energy. Participation for movies can be low, but Bok feels the movies are a success even if students come for a short time. Bok has taken on other initiatives like the Sustainability Showcase, which is an organization fair for sustainability groups, as well as a Living Green Council for students residing in the living green dorm who are especially enthusiastic about sustainability and want to take on more projects.



Figure 5: Two students at one of Bok's CSA cooking nights

Bok claims a success is "being able to get students in their first year and give them knowledge, vocabulary and skills to be better sustainable citizens." When students learn to use cold cycle laundry or take the stairs instead of the elevator, it saves energy and shifts habits and behavior. However, even with all of these successes stated, the living green dorm is not perfect. Katelyn Boisvert, current freshman living in the living green dorm, claims that for those that are interested in sustainability, the dorm provides a lot of opportunity to become more involved. However, for individuals who do not have a natural interest in sustainability, the fact that they live in the sustainability dorm itself is seen as a setback because it pushes a lot of sustainability

values on to them (Boisvert 2017). Living green is still striving to promote sustainability, while connecting this gap between passionate students and the other residents of the hall.

Sustainable Education in Campus Life

Beyond where students live, Campus Life stretches to student organizations and engagement on Emory's campus. Campus Life has worked to raise awareness for sustainability, and their programs have worked with community engagement. Lisa Loveall is the current Director of Student Involvement, Leadership and Transition (SILT). The office oversees Emory's Student Government Association, Graduate Student Government Association, Orientation, Volunteer Emory, the Emory Integrity Project, International Student Life, and Student Organizations (Loveall 2017). SILT embeds sustainability through its activities in ways that go beyond recycling. Through Loveall's work in Emory's Campus Life, she has approached sustainability with a social justice lens. "Sustainability is not just about going green, the work that we do is intentional and reciprocal, and the work needs to be socially just and socially minded, and the work that we do is creating pockets of change and to be change agents through the needs of the community" (Loveall 2017). This is reflected a lot the work of SILT and Volunteer Emory. In 2012, Loveall created dialogues about sustainability and social justice within Campus Life and Volunteer Emory. Social justice dialogues approached lenses of racism, gender discrimination, class divides, and policy and how they interrelate with environmental issues like food insecurity and climate change. These discussions took sustainability a step further by bringing up the social justice dimensions of many environmental related issues. Campus Life continues using a community engagement model, which has shifted the way service work is done at Emory (Loveall 2017).

Through Campus Life and SILT, there were changes in habits and behavior that became incorporated through time. Campus Life holds all of their offices and organizations to a certain sustainable standard. For programming, all events must be zero waste, and this initial effort has now become an automatic habit for all organizations under SILT. Orientation recently went under an audit from OSI to make Orientation more sustainable. This past August, they converted their paper use to TreeFrog (paper created from sugar cane waste), had all of their Orientation Leaders use reusable utensils, and required every event to be zero waste. Other organizations have worked under SILT to incorporate more sustainable and socially just actions. Loveall challenges students to ask sustainability-related questions, and in this way incorporate the role of sustainability into the mission and priorities of Emory's Campus Life.

Dobbs University Center and Campus Life Center

Emory's current student union and the heart of Campus Life is the Dobbs University Center (DUC). The DUC expansion was built during the 1986 and has been in use since that time. The building holds the Dobbs Market, Eagles landing, Emory Mail services, Kaldis' Coffee and much more. When the building was constructed, it was an addition to the Alumni Memorial University Center (AMUC) and few sustainability initiatives were considered when it was built. As sustainability's presence has increased on campus, more sustainability action has been incorporated into the DUC. Recycling options expanded. The Dobbs Market changed their purchasing to increase their sustainably produced and local food options, as well as to add

composting for food waste. The coffee shop in the DUC main area shifted from Dunkin Donuts to Kaldi's which practices Fair Trade coffee purchasing.

In 2016, Emory announced the construction of a new student union which will be called the Campus Life Center (CLC). With this announcement there has been much talk of how the CLC will reflect and practice Emory's commitment to sustainability. As part of the CLC planning and construction, a CLC focus group was formed. This is a group of students and faculty who met with major planners and staff members to discuss their sustainability concerns and wants. This group wanted to ensure that sustainability is at the forefront when constructing the new building. In keeping with Emory's commitment, the CLC will be at a minimum LEED silver, but many faculty and staff have advocated for a LEED gold goal. In addition, many sustainable features will be incorporated into the building.

Emory's University Senate Committee on the Environment, which is a group of faculty, staff and students, passed a resolution on the Campus Life Center's contribution to Emory's Sustainability Vision. The three main recommendations made by this committee are:

- a. Establishing a plan for achieving net-zero energy in the Campus Life Center (CLC) by the end of 2022, roughly four years after the completion of the building and two years after a thorough analysis of the actual energy use intensity (EUI) of the building.
- b. Striving to achieve LEED Gold certification for the CLC building.
- c. Undertaking a thorough evaluation of additional on-campus options for powering the CLC through additional renewable energy sources.

As of this writing, the focus group continues to meet to encourage sustainability innovation in this campus site.

Sustainability in the Broader Emory Campus: Culture and Behavior

The presence of sustainability-minded individuals and ambassadors on campus has steadily increased, along with the change in infrastructure, programming and the presence of OSI. Emily Cumbie-Drake graduated in 2010 from Emory College of Arts and Sciences, and was also the former OSI Sustainability Program Coordinator from 2012 to 2014. When Cumbie-Drake began at Emory in the Fall of 2006, she reports that there was not a great deal of engagement with sustainability from Campus Life (Cumbie-Drake 2017). As a student, she remembers there was basic recycling infrastructure but no living green dorm yet. Cumbie-Drake claims that there was much more sustainability focus and exposure in academics compared to in Campus Life. However, the student sustainability effort expanded a lot during the time Cumbie-Drake was an undergraduate. The Emory Environmental Alliance existed, Slow Food Emory started, and many sustainability projects were taking form such as the Green Bean Coffee Cart, which Cumbie-Drake had a large role in running.

In 2012, Cumbie-Drake returned to Emory as the first person to take the position of Sustainability Programs Coordinator for OSI responsible for student outreach and education, and in this role she worked directly with students. As OSI worked to create positive transformation and educate students on skills for sustainability success, the office significantly affected Campus Life. Thereby, OSI's work with food, energy, and water affects the Emory community and Campus Life. OSI has completed projects to keep sustainability on the forefront for each individual student.

Student Sustainability Forum

During the time after OSI had gotten to be well established, a lot of sustainable work and leaders on campus emerged. There became a need to connect all of the sustainable individuals on campus, and therefore the Student Sustainability Forum was created. A loose version of the forum existed when Emily Cumbie-Drake was a student. Sustainability leaders held meetings in the Dobbs University Center (DUC) to collaborate. When Cumbie-Drake started at OSI, she revamped the meetings and created a Facebook group. This group has continued with leadership from the current person in this position, Taylor Spicer. The purpose of the Forum meetings is to engage and connect dedicated sustainability undergraduate students and graduate students. Generally, attendees of the meetings are those who have leadership roles in sustainability-related groups. They are often OSI grant recipients and passionate individuals about campus action. The meetings happen once a month throughout the academic year. The meetings have been successful in heightening awareness in Campus Life related to sustainability. This past year, one action that came out of the Forum was the creation of the CLC focus group. A number of Forum attendees composed an email to key individuals planning the new building and requested a meeting, and from the issues raised at the meeting, the CLC group was started. At the Forum meetings, individuals have the opportunity to share ideas, offer advice, and educate each other about what different parts of the university are doing in terms of sustainability. Attendees claim it is an extraordinary way to learn more about what is happening in regards to sustainability and how to get involved.

Residence Hall Association Sustainability Chairs

The Residence Hall Association (RHA) is a student organization for all undergraduate residence halls, the mission statement claims that “We, the members of RHA, strive to unify Emory University’s residential community, instill pride in our campus, and enhance the residential living experience through campus-wide activities for and by the students.” RHA consists of the executive board and then individual hall councils for each respective hall. Every hall council has a sustainability chair. These chairs work with the executive board sustainability chair as well as an intern from OSI to be sustainability representatives. The sustainability chair program was initiated by Cumbie-Drake; she worked directly with Kyle Griffith to form the program in 2013. Cumbie-Drake claims the goal of the program is to “make everyone feel like they could have a role in sustainability.” The chairs plan events for their individual halls, as well as program events together and promote advocacy for sustainable living. The program acts as a liaison between OSI and Campus Life, and when chairs recognize there is a problem or need related to sustainability, they can advocate for it.

The chairs publicize the sustainability competitions put on by OSI, and they also educate about the “Don’t Dump it, Donate It” initiative at the end of the year which collects and donates unwanted items from residence halls. The chairs can develop programs as a group. For example, this past academic year the RHA sustainability chairs ran “No Power Hour” which encouraged residents to shut down their lights and electronics and unplug everything and go outside where different sports and games were set up. Another component of the program is having the opportunity to attend the EcoReps conference at the University of South Carolina, where many residence hall sustainability representatives from different schools meet, network and learn new ideas to enhance the success of the programming at their own school.

Katelyn Boisvert, a current sustainability chair for the living green dorm, has learned a great deal about advocacy, programming, and influencing behavioral change from the RHA sustainability chairs program. At the beginning she was enthusiastic about the potential of the position, then realized that it will not necessarily happen the way she envisioned it. Through trial and error, Boisvert has come to the realization that advocating and attempting to make people care about sustainability is hard work, and sometimes people do not want to listen to what she has to say. She has shifted her sustainability focus to incorporate small educational components to Hall Council events that already exist. This way, sustainability becomes a part of a fun event that appeals to the entire hall population.

Sustainability Competitions

Over the years, The Office of Sustainability Initiatives has organized sustainability-themed competitions to encourage students to alter their behavior and habits with attention to energy, water and waste. The energy competition runs for the month of October. Emory's building occupants compete to reduce energy use on campus in residence halls and academic buildings (Emory Report 2011). There is a \$1000 prize toward a sustainability related hall project. Every year the campus saves a lot in kilowatts per hour. "Our energy competition encourages energy conscious behaviors that many choose to continue after the month ends" said Ciannat Howett (Emory Report 2016). Past winners of the energy competition have purchased energy efficient appliances, motion sensor lights, and energy-free community building features. By 2015, Emory reduced campus energy use by 27.2 percent per square foot from a 2005 baseline, surpassing the goal of 25 percent per square foot reduction (Emory Report 2016). While much of these savings came from building energy efficiencies, residence hall behavior shifts contribute to energy reduction.

The recycling competition takes place during the month of November with a mission similar to the energy competition. The building winner receives \$3000 to spend on dedicated recycling equipment for their building. "These yearly competitions are helpful in reducing energy and landfill waste throughout the competition months," says Ciannat Howett "but beyond that, they raise consciousness and instill more sustainable habits amongst the Emory community" (Emory Report 2015). Especially during drought years, there were also water conservation competitions that encourage shorter showers, consolidated laundry loads, and other initiatives. Each of these competitions is part of Campus Life's educational efforts.

Graduate Sustainability Group Ecosystem

In 2015 the Graduate Sustainability Group (GSG) launched an interactive Emory sustainability ecosystem map. It took three semesters to create a representation of over 700 staff, faculty, and students. This map was funded by the Office of Sustainability Initiatives incentives fund. The map's purpose is to expose and connect different initiatives, groups, individuals, and projects (Emory Report 2016). The map shows individuals within the different parts of Emory's sustainability community how they are connected. It also provides websites and contact information to make it easy for other individuals to learn more or get involved. The GSG ecosystem highlighted successes and ongoing relationships all throughout the university. <http://www.emorygsg.org/emoryecosystem>

Change in Culture and Behavior

Scott Rausch, senior director of Residence Life says “Sustainability in Campus Life is large and is getting larger. Campus Life incorporates everything into their sustainability focus: energy consumption, waste management, access to sustainable food products, and facilities. The range is from small things, like paper, to large things, like buildings. Campus Life is part of every Emory student’s experience and with that sets the tone of Emory’s sustainability culture,” (Rausch 2017).

There has been some data collection in the change of behavior and awareness of sustainability at Emory. In the 2016 Sustainability Literacy Survey conducted by OSI, approximately 1,100 graduate and undergraduate students answered questions about their personal sustainability outlook. One question asked “Overall, how much has your sustainability-related behavior increased since you started Emory?” On a scale of one to five, 41% reported “a moderate amount” (a three on the scale), while 15% reported a four score and 10% reported a five. Other questions asked more specifically about shower use time and engagement in sustainability related events. Through these data, it is evident that actions in their daily living have changed for some students, and it is safe to conclude that Campus Life initiatives are a key part of that change (Office of Sustainability Initiatives Literacy Survey 2016).

Apart from this self-reported data from the literacy survey, it is difficult to document change in culture and behavior. The success of Campus Life sustainability actions may come with altering habits for the rest of an individual’s life time or for a short period. Based on this history, however, the efforts of programming, initiatives and buildings have increased over time, and there have been many sustainable champions at various levels. It is doubtful that Campus Life initiatives completely altered all Emory students into the best sustainable citizens possible. However, it is likely that for most students, Campus Life’s efforts do play a role, whether it be completely redesigning one’s lifestyle and taking advantage of every sustainable opportunity present or by just altering one or two habits that will continue past the time at Emory.

In 2016, a second Sustainability Strategic Vision Report was created and identified new goals Emory’s sustainability efforts. One of the action commitments stated by the Vision Committee is to integrate sustainability more deeply into the life of the campus.

Proposed initiatives include:

- Infuse sustainability expectations and goals into residential education, including the first year experience, Greek life, and Emory Dining educational activities.
- Support student leadership at graduate and undergraduate levels to develop metrics of sustainability literacy for each program, residence hall, and Greek house.
- Develop a sustainability literacy survey for all students and administer annually.
- Expand sustainability-related community service opportunities through Volunteer Emory and other groups, especially for graduate and professional students.
- Link programs with Office of Health Promotion to strengthen awareness of individual health with global community and planetary health and well-being.
- Ensure sustainability commitments are met and communicated in summer conference and camp programs and events

These identified goals build upon the original vision of creating sustainable ambassadors. Through the persistence, advocacy, and education that has already been seen in Campus Life, the division will continue to work towards this new vision. Based on the past 10 years and the progress seen, the next ten years will undoubtedly be a time of terrific strides for sustainability at Emory.

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