

# 2014-2015 ASSET Fellows

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Nicholas Britten Major | Mathematics Vermillion, South Dakota Class of 2016

The goal of my project was to investigate and test a new method of calculating genetic distances between species, the DCJ distance, developed by researchers at the University of Western Sydney. This method is novel because it represents genomes as permutations of conserved regions of the genome, and uses that representation to apply group theory to the problem of calculating genetic distance between species. My goal was to use this distance calculation to create phylogenetic trees, and to compare the trees I created with trees created using other methods in order to assess the accuracy and utility of the DCJ distance. Because this project involved both math, specifically group theory, and biology I worked with two advisors, one in the math department, and one in the biology department.

I first devoted my efforts to building a complete understanding of the DCJ distance by going through the paper describing the distance calculation line by line, and by locating and reading other relevant papers. I then wrote a Python program to automate the calculation of the DCJ distance, and began attempting to locate suitable data on which to test the calculation. My initial plan had been to locate a group of species, preferably bacteria that had been extensively studied and construct a phylogenetic tree that could then be compared to existing trees. However I was unable to find a method of converting the raw data of the bacterial genomes into a form that could be used to calculate the DCJ distance in the time that I had. So instead I focused my efforts on creating a program that would simulate a group of species evolving from a common ancestor. The benefits of this method were that it was relatively easy to have my program represent the genomes in question as permutations of genes, eliminating the need to convert raw sequence data into the form needed for the DCJ distance calculation and that I would know the true tree, making my assessment of the accuracy of the created trees more accurate.

After the simulation was completed I ran many iterations with varying numbers of species created, and numbers of mutation events and created phylogenetic trees based on the DCJ distance. I was then able to compare the trees I had created to the true phylogenetic tree, because I knew how my simulated species were related. At this point I had to research various methods of comparing phylogenetic trees, and write another small Python program to automate the process of comparing my created trees to the true trees many times. I ran out of time before I was able to analyze the results statistically, or run as many different versions of the simulation as I would have like, but in general the trees I created were quite similar to the true tree.

My tentative plan going forward is to continue this project as a senior research project. This would entail continuing to refine my simulation to make it more accurate, running many more iterations of simulating the evolution of species and creating phylogenetic trees, and analyzing my results statistically so that I could make stronger statements about the accuracy of phylogenetic trees based on the DCJ distance. Ideally, I would also be able to make more changes to my simulation in order to create situations in which traditional methods of tree construction are inaccurate, and test whether trees based on the DCJ distance tend to be more accurate in these specific situations.

Over the course of the summer I gained experience in mathematical research, which I was hoping would help me determine what I wanted to do after Knox. However, I am still conflicted between pursuing a higher degree in mathematics and attempting to find work as an actuary. I was also able to pass two of the actuarial exams over the course of spring term and my time at Knox over the summer, and am attempting to find an actuarial internship over the Winter term. I do plan to take the GRE this term, and to begin seriously researching my options for graduate school, but I am not yet certain that I will be applying to graduate programs.

### Sophia Croll Major | History Cambridge, Massachusetts Class of 2016

My ASSET project grew out of an independent study I conducted in the fall of my junior year at Knox about the war memorials on the National Mall in Washington, D.C. Over the course of that independent study, I realized my deeper interest lay in the way memorials attempt to offer historical and emotional explanations for defining events. Trauma memorials in particular are often asked to bridge the gap between the needs of personal grief and national memory. Since I also study German language and culture at Knox, the complexities of Holocaust memorials were an obvious place to further explore the relationship between kinds of memory. Unfortunately, most of the Holocaust memorials I was interested in were in Europe, and I had to find a way to get there.

When I applied to the ASSET program, I had already been accepted into Knox's exchange program with the Europa-Universität Flensburg in northern Germany, but it was ASSET's financial support that let me focus a large part of my research on how German memorials to the First World War and the Holocaust. Memorials create their meaning through their use of space, It was the opportunity to personally visit places like the Memorial to the Murdered Jews of Europe that has made my research possible. ASSET provided me with a community of fellow students who were also piecing together what it meant to do independent research as well as the financial support to sculpt this project in the ways that most intrigued me.

My ASSET work was also a chance to use the German language skills I have developed at Knox to do real historical work. One of my fondest memories of my time in Germany is doing some research at the State Archives in Hamburg. As is often the case with archival research, I did not find anything that directly helped my project, but the experience was still exhilarating. I read newspapers from the 1930s and '40s that detailed the story of a World War I memorial in downtown Hamburg through its design and redesign by the Nazis, and the postwar debate about how to approach the space's complicated legacy. It was thrilling to read German sources in a German archive.

The advanced planning I did for ASSET prepared me to apply to the Knox College Honors Program in Spring 2015. I was accepted and am now working on transforming the 'raw data' I collected in memorial spaces in Germany, Austria, and Belgium into a paper about the different approaches to mass death in World War I and Holocaust memorials. This is the most complex piece of scholarship I have ever written and it would not have been possible without the space ASSET gave me to test ideas and the financial support of the program.

Spending so much time in memorial spaces over the summer has cemented my love of public history, which is the study of how communities use their history to create their own stories and sense of identity. In a year or two, I plan to start a graduate program in this field, but first I am taking a gap year to explore what other kinds of public history related work exist. Despite often being national constructions, memorials are based on the experiences of a community. I hope this project will help me see new facets of the relationship between community experiences and official history, which I hope will make me a more compassionate and curious historian.

### Caleb Fridell Major | English Literature Guilford, Connecticut Class of 2016

I spent the summer working on a screenplay for an original feature-length film with my partner in a co-honors project, Sofia Drummond-Moore. After having developed some small plan for the writing during Spring Term last school year, we collaborated almost entirely by email: I would send a few pages to her, she would send me back notes and revisions, along with a few new pages of her own. So we continued, piece by piece, until by summer's end we had something resembling a first draft. The writing was-and I speak only for myself here-difficult, as writing always is. Paralyzed by self-doubt, blocked from inspiration, anxious of influence-never did I see clearly a path laid out before me. Still, somehow, we finished that first draft.

When we got back to good old Knox College, we first sent the script to one of our honors chairs, Sherwood Kiraly, a screenwriting professor. While waiting for his wisdom with which we might begin extensive revisions, we organized auditions with the theater department for the three lead roles. Sitting in with Studio Theatre directors, we watched five hours of auditioning actors (what a turn-out!); from these we found a more talented cast than we had dared hope for. We met with them and read through the script in what seemed an auspicious start: we all shared an excitement to be working on the project. And now from here I must switch to the future tense. Before we begin filming, and while we continue to finalize a script, we will continue meeting regularly with the actors for rehearsals, and will continue preparing every other necessary preliminary measure for a smooth principal photography. Then, we will shoot the movie, then we will edit it, then we will show it before our honors panel. (It's best, I find, not to be too specific in one's plans; those are the ones that most surely fail.) And then, should it all turn out, we will submit the final movie to a few judiciously selected film festivals. (This, too, is about as specific a plan as I hazard for our project's life after Knox.) We've talked halfjokingly, carefully avoiding betraying real hope, about the possibility of our film being accepted into a major festival, of our being discovered, and launched into the careers we've long dreamt of. It's usually when we're listing all the sundry awards and accolades that await us that we stop, and remind ourselves: first we have to make the thing: first we have to put everything we can into it.

#### Charlie Harned Major | Political Science Webster Grove, Missouri Class of 2016

The ASSET program allowed me to have the most memorable and impactful summer of my life. When looking at my political science major and my role as Student Senate President, it should come as no surprise that my project focused on politics. I looked at the impact three political initiatives—redistricting reform, nonpartisan primaries and campaign finance reform—have on Americans across the country. I conducted phone interviews, email interviews and even travelled to California to meet with decision-makers in their redistricting and primary reform process.

My research into campaign finance reform allowed me to speak with a number of "bundlers" for Presidential campaigns (a bundler is someone who hosts a fundraising event for a campaign, collects all the money raised from the guests, and

then sends the donation to the campaign in his or her name) and learn about the macro-level fundraising process. The redistricting research led me to conversations with everyday Americans from California to North Carolina who have been affected by redistricting. The most memorable of these discussions was with a city councilman in Ashville, North Carolina. We talked all about how political life in his town completely died when the railroad company shut down. However, I learned the most from the primary reform research I conducted. There are so many exciting primary reforms going on in all corners of the country, but the most interesting is the blanket primary system in California. Ultimately my research showed me that one of the biggest virtues of the American political system is the ability of states to innovate and act as labs for political experiments. No two states are the same, and it was very enlightening to research how these three important issues are addressed all across America.

After graduation, I hope to go to law school and work in politics in some capacity. In short, I want to be a change agent and I believe my skill set is best suited to effecting change through politics.

Emily Hastings Major | Computer Science Galesburg, Illinois Class of 2016

This summer, I spent ten weeks working with Professor Jaime Spacco and another Knox student to develop an educational plugin for the game Minecraft that will help teach introductory computer science students to program in Java and similar languages. One of the main objectives of Minecraft is to build various structures out of blocks. Our project, which we have named

Knoxcraft, forces students to do this by writing code in Java (or another language of their instructor's choice-we currently support both Java and Python, and have a framework for users to extend Knoxcraft to work with potentially any programming language). This environment allows students to become comfortable with the process of programming in a fun and visual context they may already be familiar with, and may help make computer science as a field more accessible to those groups who are currently underrepresented. We have submitted the project as a Nifty Assignment to the annual SIGCSE conference (http://nifty.stanford.edu/), and we intend to test the system with students in Knox's CS141 courses this fall term. For more information or to try out the system, check out Knoxcraft's website at cs.knox.edu/knoxcraft.

Working on the project this summer was a very rewarding experience. I was able to utilize my science skills and computer implement development strategies we discussed in recent classes while creating a tool that can help teach other students to program. This is especially interesting to me because after Knox, I intend to obtain a Ph.D. with a focus on computer science education (or the related field of human computer interaction) and teach computer science at a university level, likely at a small liberal arts college like Knox. I am in the process of applying to graduate schools now; I have already taken the GRE and am happy with my scores, so I just need to settle on the schools to which I intend to apply. Currently, Indiana University is at the top of the list, as it has a reasonably high-ranked CS program and would allow me to purse a Ph.D. minor in either Medieval or Renaissance studies (my other academic interests), which both seem to have a fairly active presence on campus, even for students not involved with the programs. The other schools I am considering are University of

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Illinois at Champaign-Urbana, University of Iowa, and University of Wisconsin-Madison.

### Ai Miller Major | History Toledo, Ohio Class of 2016

In doing research for a paper in Catherine Denial's History of Birth Control in the United States, I came across a reference to a document produced in 1981 by a now-defunct government agency that advised that Medicare should not cover what was at the time known as "transsexual surgery," or what might today be called "sex reassignment surgery," "gender confirmation surgery," or any number of other names. When I tried to look up more information, I came up short. The frustration of trying to do longdistance archival research with no resources at my disposal ate at me, and led to the development of my ASSET project: looking at the history of transgender transition in the United States. I knew the scope of this would extend beyond my tenure in the ASSET program, and so I began to make plans with my advisor to construct an Honors project.

In order to pursue my project, I knew I would need to go to the National Archives in Washington, and as I began to do the preliminary secondary source research, I realized that it would also be valuable to me to visit the Kinsey Institute archives in Bloomington, Indiana, to examine the papers of Dr. Harry Benjamin, one of the most vocal health care providers in favor of transitionrelated healthcare for transgender people in the 1950s, 1960s, and 1970s. I spent a very fruitful week in Bloomington, digging through Dr. Benjamin's correspondence and other personal files, and two less fruitful weeks in Washington DC, getting a first hand lesson in the trials and tribulations of doing archival research and finding very little. During my stay in Washington, I also got the chance to visit the Library of Congress, and found a few more useful things there.

All of that research will become the basis for my Honors project on the history of transgender transition in the United States from 1950 to the present. Coupled with oral histories of transgender people that I will conduct while on campus this term, I hope to get a sense of the medical-legal constraints and pressures on transgender individuals to transition in a specific way, while also critiquing the obsession with surgery that those constraints have placed in the public mind. I want to offer space to transgender individuals themselves to shape what transition means to them, and begin to examine ways that those voices, which have historically been silenced, can give greater meaning to the narratives that already exist.

After Knox, I am hoping to attend graduate school, where I will pursue a PhD in History with a specific focus on LGBT history in the United States. I want to continue to write and research about transgender history specifically, but most of all I want to teach about issues of gender and sexuality in history and find ways to make history applicable and tangible to groups who have been generally ignored by traditional historical practice.

### **Brad Musselman**

Major | Chemistry Oswego, Illinois Class of 2016

The goal of this project stemmed from the idea that metallomesogens, which are liquid crystals

that incorporate metal coordination chemistry, should be investigated thoroughly as a substitute for common organic liquid crystals. On one hand, organic liquid crystals have proved throughout the 20th century to be industrially significant soft materials as key components in nearly all electronic devices such as: electro-optical displays (i.e.: LCD display), photovoltaic cells, LEDs, temperature-sensing devices etc. As a result, many advances have been made in organic-based liquid crystal research; however, in the same time frame as organic liquid crystals were known metallomesogens were also discovered though gained considerably less attention. Through the incorporation of metal-coordination chemistry, various significant physical attributes (magnetism, color, greater coordination geometries, etc.) could be added to the already impressive list of benefits that organic liquid crystals offer to consumers. The main drawback, as it seems, for using organic LCs over metallomesogens is that metallomesogens have considerable higher melting points making it more difficult to access the liquid crystalline phase. Therefore, my ASSET project sought to explore the influence of axial site coordination by various supramolecular organizing ligands (i.e.: hydrogen bonding and  $\pi$ - $\pi$  stacking) on heteroleptic copper (II) carboxylate dimeric metallomesogens in the hopes of finding ways to depress the melting points of these complexes.

The plan for this project ultimately combined two important methodologies in chemistry: synthesis and characterization. The synthetic process for this project was designed to be fairly simple, such that it would be applicable and pleasing to other researchers who could find deeper applications for our products. The challenge for the project would then come through the variability of results through the characterization process. Although the plan for this project seemed to be fairly straightforward, it turned out that my final project was almost completely different than what was originally proposed. In the early stages of research, I attempted to stick to the plan that I laid out for myself in the proposal, but as time went on I, unsuspectingly, either had extreme difficulty synthesizing novel complexes with new ligands that I wanted to use and/or I couldn't find anything new or productive using the old ligands that I've previously used.

Once realizing I wasn't getting very far with the dimeric analogues, my project focused on the influence of axial site coordination of homoleptic copper (II)carboxylate tetrameric metallomesogens. In the end, the idea of my original project was still explored except I chose to use different complexes, which our research group discovered a few years back, but had not yet explored as extensively as we would have liked. Much greater success was achieved with the tetrameric analogues in terms of synthesis. Although not much of the characterization process was achieved during the summer, preliminary results showed a strong, positive correlation between axial site coordination and melting point depression for every complex that I synthesized. Therefore, I decided to take the next step with this project as I just recently submitted my Honors proposal, which seeks to conclude and build upon the strong preliminary results I got from the copper tetramers this summer. My plans for this year is to use this project as an experiential experience to increase my chances of getting in into graduate school to pursue a Ph.D. in chemistry. I'd like to thank those who support this program for helping me to pursue this very interesting and rewarding project.

### Grace Neubauer Major | Biochemistry Inverness, Illinois Class of 2016

Automatically this project displayed for me the difficulty of business. Due to plans not working out as expected, my project had to take a different turn and become more focused on the business aspect of owning and working for an alternative energy business. Because of my background with making biofuels, I have an understanding of the chemical and technical side of the business. Also, working at the U.S. Department of Energy last summer gave me exposure to environmental policy. Since my main project focus has changed over time, this summer was an interesting experience.

It was difficult to get the information I needed because entrepreneurship is not something that can be learned simply. I used all my resources possible. I sent letters through the mail and emails to contact alternative energy business owners, directors, and heads of departments in order to make a connection between my project and a variety of businesses in this energy sector. I was able to get in contact with some variety because they found interest in my desire to learn about the alternative energy business. These business workers informed me on more environmental and economic policies and permits along with how business relations and work function. Mv spectrum of people included Carl Wolf, the business operations director from Lanzatech (a company converting carbon waste to energy); Zach Waickman, Biodiesel Lab Manager at Loyola University (which is creating and selling biodiesel for surrounding areas); and Dennis Ford, the Director of Engineering at Suzlon Wind Energy. One main point from each of them was the importance of large scale proof, the economic

factors like the renewable fuel standard, and the process of working with people in different areas of the same company, respectively. In addition to using direct interviews with people, I took advantage of my American Chemical Society membership. With this, I had access to webinars and the topic this summer was entrepreneurship in chemistry! I watched a few of them including the "6 codes of entrepreneurship" and a couple on the "Business Model Analysis." Using the information I gained this summer, I created a business plan.

Looking forward, my plan for the school year is to get more interviews, talk to Professor John Spittell in the Business and Management program, work more on the biofuels project in the laboratory, and keep organizing my business plan in the correct layout to make a stepwise process of how to make a startup in the alternative energy sector. After Knox, I am keeping my options open. I am applying to graduate schools in Chemistry departments with a sub-discipline in energy technology. I am also applying to jobs in the chemical industry and others. I potentially want to coach a cross country team in addition to a job in chemistry or energy technology.

Coltan Parker Major | Neuroscience Oswego, Illinois Class of 2016

This summer was the inaugural one for the ASSET program, and although none of us knew exactly where it would go or what it would accomplish, I know that it exceeded my expectations. Initially I felt as if we were some kind of comic book hero supergroup, a league of extraordinary scholars if you will, each embodying

a unique expertise. We started off timid and cordial; these were people who spend all their time on the far side of campus, strangers to me. But the ice broke quickly, and we became unanimously and deeply curious about each other, both in a professional and personal sense.

Neuroscience is my specialty, in particular behavioral neuroscience and pharmacology. I had wanted to pursue college Honors, and took this opportunity with ASSET to build an original research project from scratch and begin its pursuit, with the intention that the project be robust enough to keep me busy until graduation. In its currents state it is a series of experiments designed to investigate a hypothetical (yet justified) relationship empirically between physical exercise and certain learning mechanisms, along with the underlying neurochemistry. The learning mechanism that I am interested in is a laboratory model analogous to exposure therapy, a widely-used cognitive therapy prescribed to people suffering from Post-Traumatic Stress Disorder (PTSD) and related anxiety disorders. The results of my project will be a small step improving toward and fine-tuning our understanding of ways to help these people.

Although this is a worthwhile goal and more than enough motivation to pursue this line of research, I must admit to having a second source of motivation. I believe in marijuana-policy reform and safe medical marijuana use (you may sense that I'm intentional in leading with the PTSD point). Currently twenty-three states and the District of Columbia have legalized its medical use. However, according to the Controlled Substances Act (CSA) passed by congress in 1970, marijuana is in the most dangerous tier of controlled substances, with a high potential for abuse and no acceptable medical use whatsoever. While I disagree with this policy, I also disagree with so many states rushing to accept the plant as medically-viable. Because of the CSA it is extremely difficult to justify and receive funding for research on marijuana. As a result we simply know too little about this drug to be prescribing it to people (does that doctor know they are doing The pharmacological investigation no harm?). that I have built into my project addresses neurochemical systems that are the prime target of the active chemicals in marijuana, and using some clever pharmacological workarounds I intend to contribute to the body of knowledge that will inform future policies controlling the safe use of the drug.

While I was building this project throughout the summer I was in regular contact with my peers in ASSET, and we shared in a sort of collective motivation to build our projects into something we were proud to report on. I don't believe that I would have been able to conceive or create this had it not been for their support and feedback, and for your support of the program. Although I'm not sure what sort of research I'll wind up doing in graduate school, I hope it is as exciting and rewarding as this project has been, and (I'm sure) will continue to be. Thank you.

# Tawni Sasaki

Major | International Relations Simi Valley, California Class of 2016

This summer, I worked with my research mentor to further develop a topic for my final thesis. Unlike last year's McNair research experience, I found that ASSET challenged me to consider the multidisciplinary nature of research and its role in future innovation. Throughout the 2015 academic year (winter and spring terms), we met on a weekly basis to discuss articles from various points of view and prompted each other to see the world from a different perspective.

Branching off from my previous research topic of Sino-American relations, I decided to orient this year's project toward something I have much passion for: human rights and the role of international organizations. What began as a topdown political structural analysis for Liberia, Sierra Leone, and Guinea transformed into a deeper analysis of the World Health Organization (WHO) as a whole. My initial intention for research was to trace the external and internal factors that led to an Ebola epidemic in these three west-African countries; a feat that became increasingly complicated due to the lack of research or statistics already compiled about each of the respective countries. I decided to expand the scope of inquiry and consider the worldencompassing organization that is charged with addressing the world's health problems.

Although not yet complete, my research from this summer largely contributed to my overall academic and career goals. By being able to explore a different facet of political science, I was able to consider my own passions and interests in an encouraging and inquisitive environment. At the beginning of our ASSET term while discussing the assigned articles, I found myself considering the "what is right" perspective in a way that would benefit the greater population of the globe. In parallel, my research regarding the WHO was directed towards questioning the efficacy of the organization and its contributions to the betterment of the world.

After graduating from Knox, I hope to continue my academic endeavors in either a doctorate or law program. Although they bisect two different roads, I find each choice as a way to reach my final goal of working in a career rooted in international relations. Considering my previous experience, I'm interested in a doctorate program that is specific towards the interrelationship between international security, international organizations, and human rights; themes that play an important role in modern politics. A law degree, although less specific in nature, would allow me to explore this same field through a different lens - one that allows for the shaping of the legal system rather than the navigation of it.

My involvement in ASSET through this past year has allowed me to explore my interests in the field of international relations and apply them in a realworld scenario. This experiential learning is exceptional to Knox and undoubtedly valuable in any situation - it gives the opportunity to develop thorough research skills that other schools do not implement into their curricula. ASSET contributed a major block to the foundation of my higher education and provided me with the freedom to explore, develop, and execute my own research interests.

# Ariyana Smith

Major | Integrated International Studies New Lenox, Illinois Class of 2016

This summer, through the ASSET program, I collaborated on a research internship with the Resident Association of Greater Englewood (R.A.G.E.). The organization promotes resident civic participation while rejecting the idea that experiences in Englewood, and the people who live there, are inherently negative. Instead, they work from an asset-based approach which links

together community members to affect outcomes residents' desire.

It has been stimulating and thought provoking to see the innovative ways that residents have responded to and daily negotiate the politics of urban development, stereotyping, and decaydisplacement. I have observed a blend of strategies, from community building, public education, and political lobbying, to address the needs of a community that finds itself in the spotlight in an unprecedented manner.

Because of the support of the ASSET program, I was able to devote my summer to conducting the preliminary research I needed to establish the basis of an Honors proposal.

I anticipate that this project will culminate in a substantial Honors research paper detailing emergent themes and findings about R.A.G.E.'s contribution, influence, and ideological position towards civic engagement in Englewood. A central assumption of this research is that Englewood residents are multi-dimensional, active agents in shaping neighborhood outcomes. However, their agency and intentionality is often undervalued, underestimated, and overlooked. Through this undertaking, readers will be able to connect the socio-historic legacy of institutional racism in Chicago with the realities of residents currently grappling with its detrimental effects. By the end of this project, readers in the academy and in the public should be able to recognize the rationality and ingenuity that Englewood residents, through R.A.G.E., have used to confront and negotiate pressures converging on their community.

The ASSET program acquainted me with research standards and methods, ethical considerations, and professors with whom I would have otherwise remained unfamiliar. Independent research has stretched my intellectual discourse in creative ways, and has challenged me to take the reins on my academic trajectory. Right now, I'm considering the merits and challenges of becoming a professor. I have been fortunate to sit under the instruction of highly intelligent, discerning, and encouraging professors at Knox ones who encouraged me to pursue independent study through the ASSET program. My scholastic imagination has been so impacted by the work, and I probably would not have taken these leaps had it not been for them. Now, I wonder how I can share that same spirit of optimistic determination with students who will enter the academy after me. For now, I will express my gratitude by producing high quality research that meaningful and follows a tradition of is excellence. Thank you, thank you, thank you to everyone who continues to make the ASSET program a success!

# Kaylie Stahl

Major | Studio Art Brimfield, Illinois Class of 2016

My experience as a painter brought me to the point where I wanted to expand on my interest in actualizing painting that was born from collage. To actualize painting, I wanted to expand painting concepts and techniques outside of the rectangle, working directly on the wall so that the elements of a painting (the planes, fields of color, texture, pattern, spatial system, etc.) became a part of the room rather than an element on an object, the canvas, that has a long history of being defined by illusion. This interest in establishing toward painting in the room led me experimenting with installation work.

In addition to these formal intrigues, there are two repeating interests to my work: the monumental and the domestic. While the domestic is monumental in the idea of it, it is small and personal in practice. I explored both sides to domesticity through small collage pieces and a larger installation piece. The small pieces came into being as a thought reminiscent of clutter in a home where I happened upon an interesting composition: sock here...garbage there...rag on top of that. The careless nature of the way elements are attached to the wall or to each other reminds me of my mother's cluttered kitchen as if you snapped a picture of miscellaneous things lying on the counter. They furthered the ideas of collage in my paintings. While cloth and pattern are used in the paintings to actualize painting as a material and bind the cloth object with the painted material, these wall pieces establish themselves on the wall and in our space by rudely stating their material quality.

Because the domestic is monumental as well (for example, the overwhelming impact of a parent's role in a child's life), I chose to reference this with a monumental, orange form that firmly placed painting in the room. After that, the installation piece became about getting other systems, whether those be spatial, chromatic, or collage to interact with this big, orange character. Rather than perceiving this piece in a traditional pictorial manner, it was conceived by relating forms throughout the room and by how forms interact when they are made with different materials. Not only differing in their material quality, but also in how they sit in space. For example, an opaque, painted shape cloth reaching the point of object hood, and tape illustrating the idea of structure.

I will continue to explore these ideas about actualizing painting, the domestic, and the monumental throughout my senior year at Knox. After I graduate, I plan on spending an additional year at Knox as a post-bac in the Art Department which will prepare me for graduate school. Currently, I plan on pursuing an MFA in painting with hopes of teaching at a liberal arts or art school.