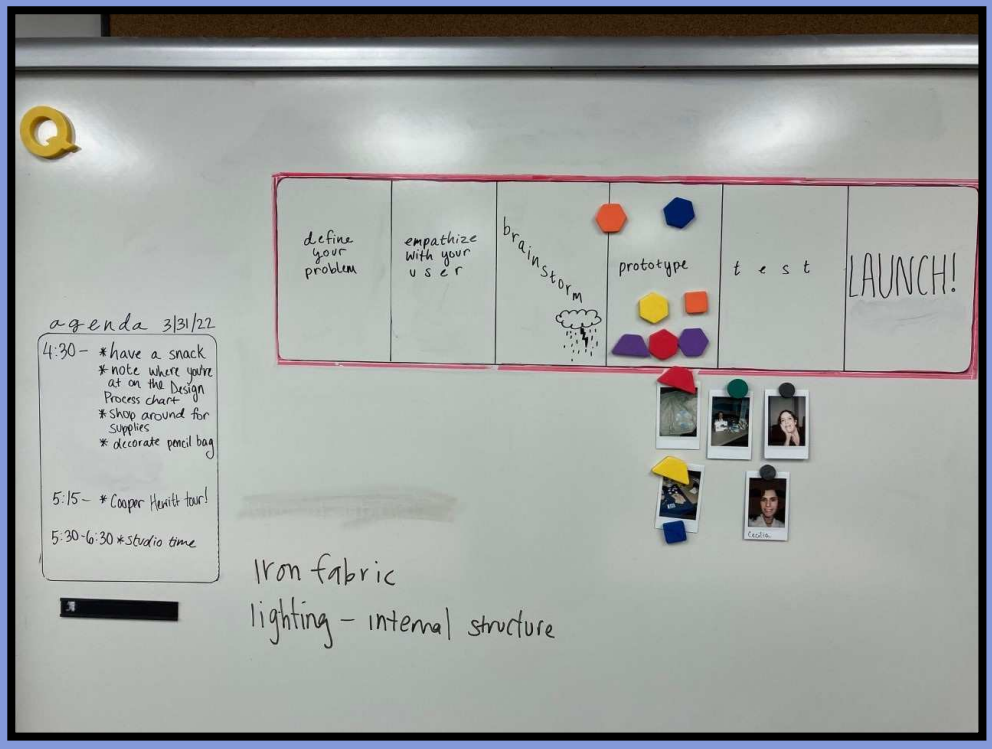

DESIGN
HIVE
2021-2022
COOPER
HEWITT
Smithsonian Design Museum

Design Hive is made possible with major support from Milton and Sally Avery Arts Foundation, The Richard and Jean Coyne Family Foundation, and The Pinkerton Foundation. Generous support is also provided by Adobe and The Hirsch Family Foundation.


define your problem
empathize with your user
brainstorm
prototype
test
LAUNCH!
agenda 3/31/22
4:30 - *have a snack
*note where you're at on the Design Process chart
*shop around for supplies
*decorate pencil bag
5:15 - *Cooper Hewitt tour!
5:30-6:30 *studio time
Iron fabric
lighting - internal structure

# A SPECIAL THANK YOU TO OUR VISITING DESIGNERS, CURATORS, AND EDUCATORS:

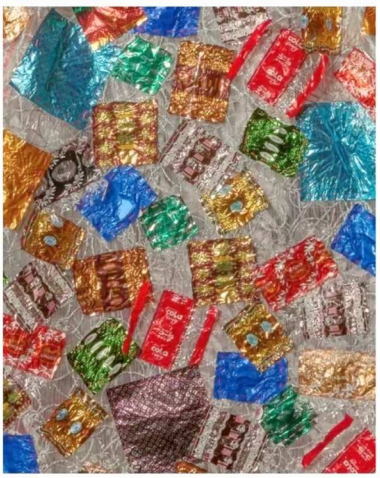
**Adriana Burkins**, Education Associate
**Aleah Leary**, Designer and former Design Hive member
**Alexandra Cunningham Cameron**, Curator of Contemporary Design
**Christina De León**, Acting Deputy Director of Curatorial
**Cindy Trope**, Curator, Product Design and Decorative Arts
**Corina Hilbert**, Designer and former Design Hive member
**Daniela Contreras**, Designer and former Design Hive member
**Emily Adams Bode Ajula**, Fashion Designer and Director of Bode
**Emily Orr**, Acting Head of Product Design and Decorative Arts
**Francis Bazil**, Designer and former Design Hive member
**Jessica Walthew**, Conservator
**Kira Eng-Wilmot**, Textile Conservator
**Melissa Gutierrez**, Senior Experience Designer, Adobe
**Micah Pegues**, Cross Platform Content Associate
**Pamela Horn**, Lead Content Strategist and Director of Cross-Platform Content
**Raja Schaar**, IDSA, Industrial Designer

COOPER HEWITT
DESIGN HIVE

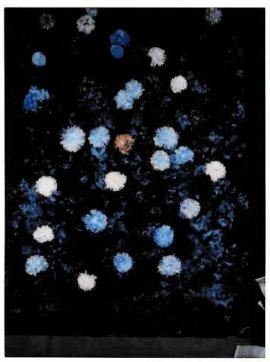
## WELCOME!

We are so excited to kick off Design Hive with you all! Welcome to our weekly newsletter, where we will feature need-to-know information, upcoming agendas, weekly assignments, the occasional joke and/or design inspiration.

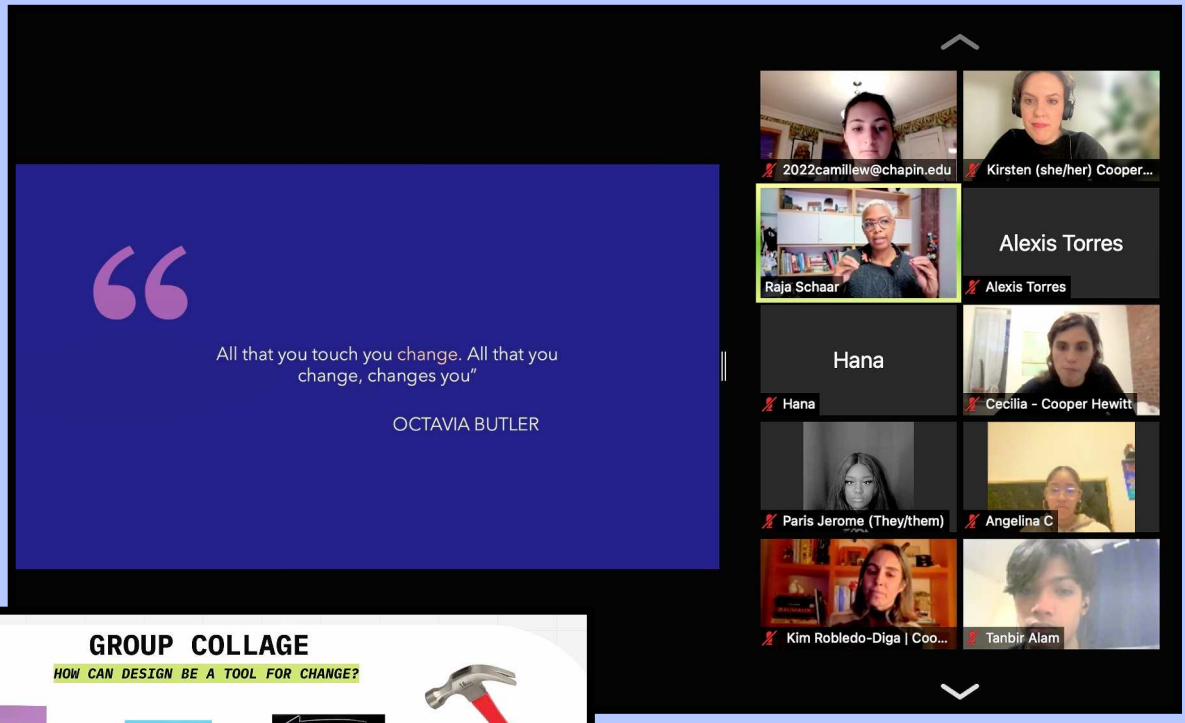
**See you this Thursday, November 18th from 4:30-6:30 for our first session of Design Hive!**

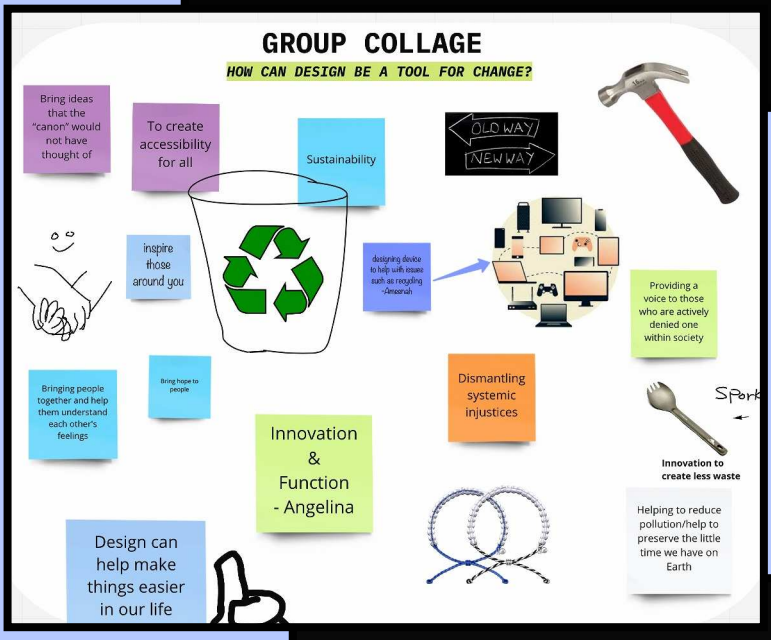


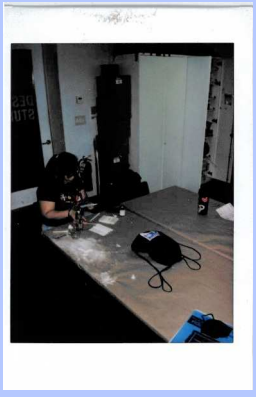
Virtual studio visit with Emily Bode

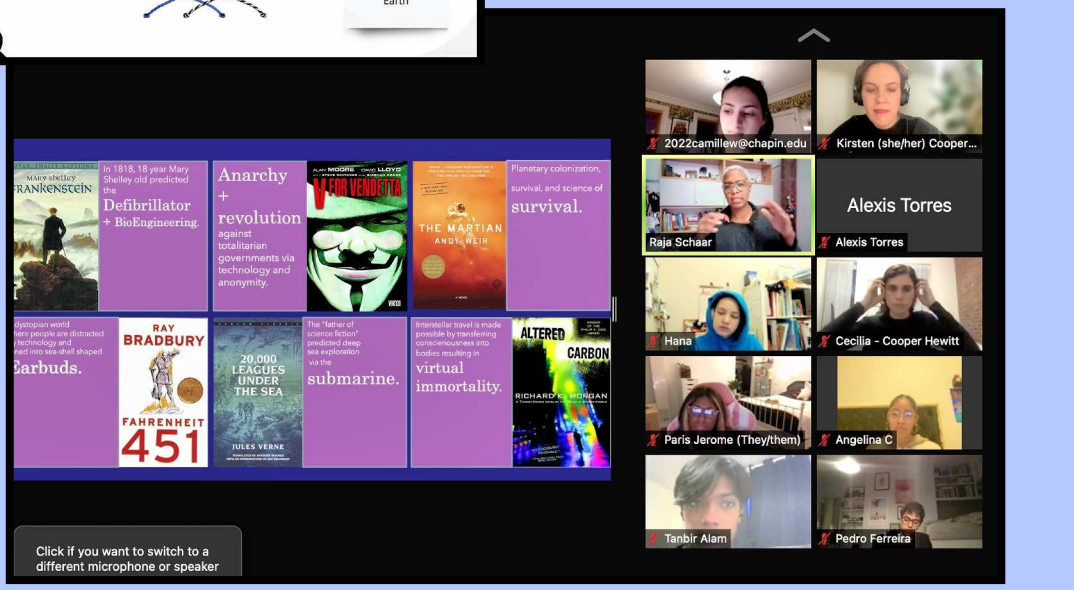


"Telling your design story" workshop with Melissa Gutierrez of Adobe



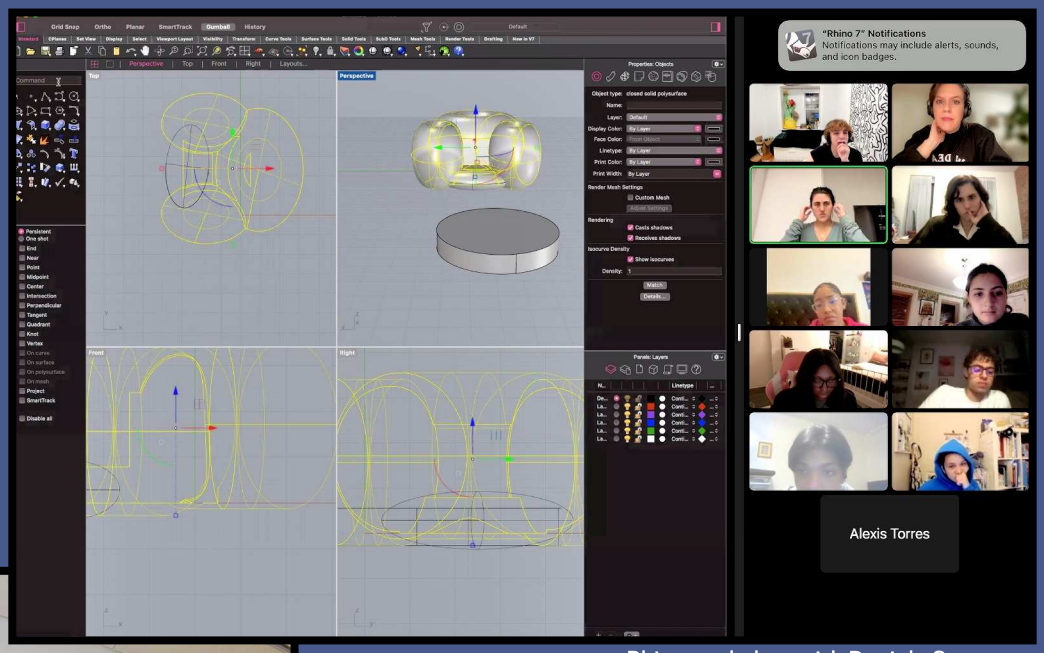





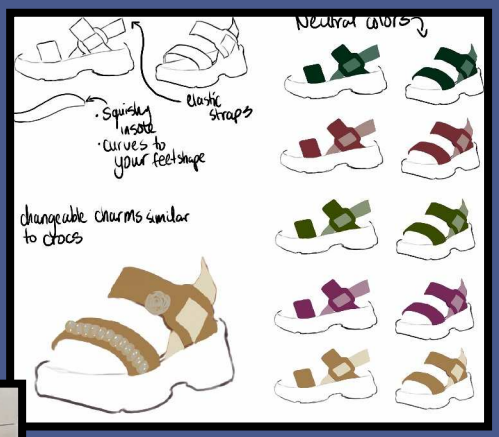

Virtual workshop with Raja Schaar


Bode studio tour

Illustrations by Alexis Torres

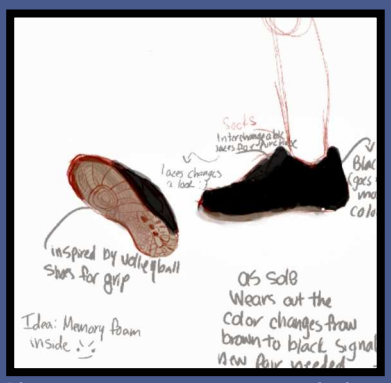



Rhino workshop with Daniela Contreras





"Telling your design story" workshop



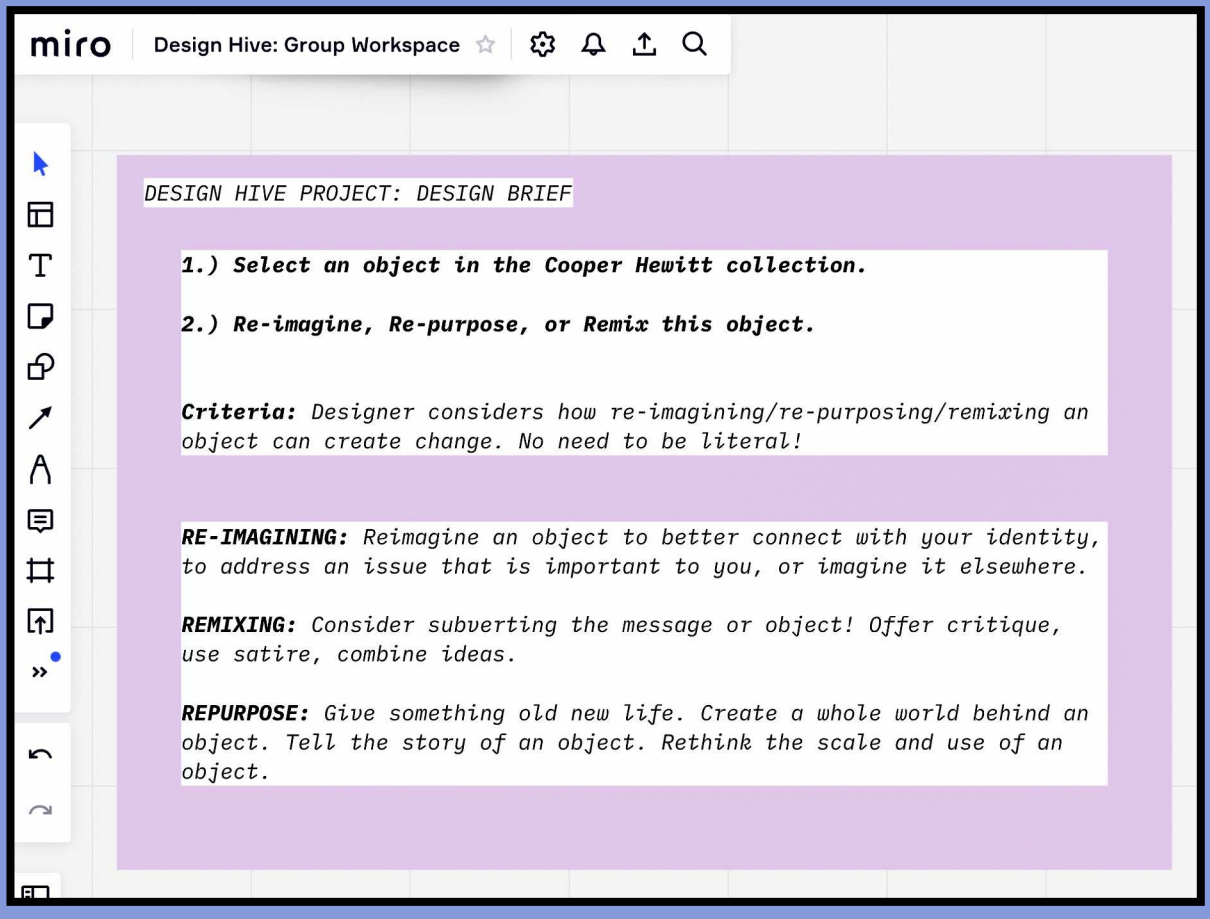

Shoe Prototypes, User Workshop

# OUR DESIGN CHALLENGE

**Designers see the world not as it is, but as it could be.** We explored this idea together in many ways during this year's Design Hive—visiting futurists and innovators, exploring Cooper Hewitt exhibitions and objects, and considering our place in the future of design.

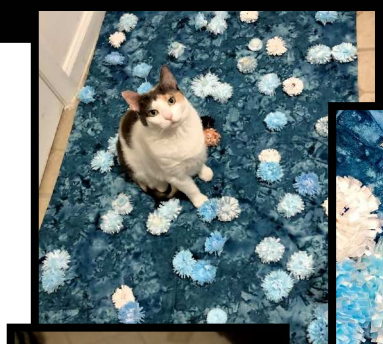
Hive designers were challenged to select an existing Cooper Hewitt collection object and **remix, reimagine, or repurpose** it. How might an object transform if seen through our eyes?

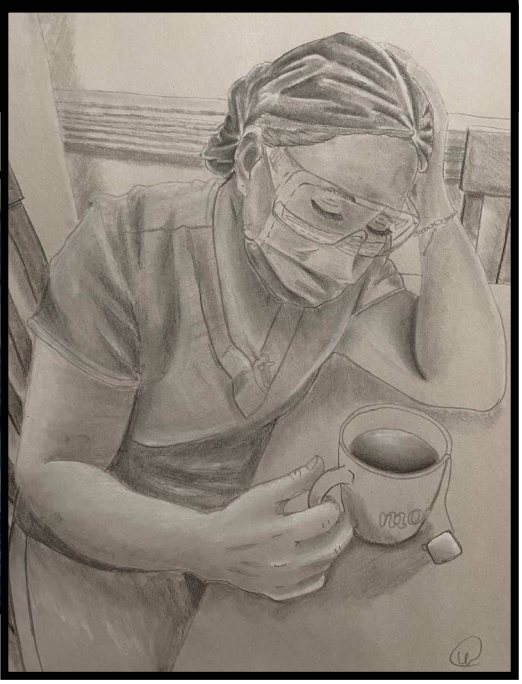
The objects that this group created reflect their care, their ideals, and their collective vision for the future.


miro
Design Hive: Group Workspace
DESIGN HIVE PROJECT: DESIGN BRIEF
1.) Select an object in the Cooper Hewitt collection.
2.) Re-imagine, Re-purpose, or Remix this object.
Criteria: Designer considers how re-imagining/re-purposing/remixing an object can create change. No need to be literal!
RE-IMAGINING: Reimagine an object to better connect with your identity, to address an issue that is important to you, or imagine it elsewhere.
REMIXING: Consider subverting the message or object! Offer critique, use satire, combine ideas.
REPURPOSE: Give something old new life. Create a whole world behind an object. Tell the story of an object. Rethink the scale and use of an object.

# ALEXIS TORRES

**Alexis Torres** is a first generation Hispanic-American dreamer! Growing up in Bronx's Little Italy, Alexis has always been an artist. She's won multiple art contests, and has had her works displayed in the Metropolitan Museum of Art, Brooklyn Public Library, and on the news. Her favorite achievement was winning the Erza Jack Keats' book making compitition with her book, "Here With You". Though Alexis dabbles in many different art forms, she gravitates mostly towards illustration and story telling. "To be able to bring life to the stories I see in my head, and to help people relate and not feel alone is my biggest dream. To help those with my art and stories, as other's art and stories have helped me." said Alexis in 2022. She is continuing her education at the Fashion Institute of Technology this fall semester. Her goal is to complete her BA in illustration and be able to create her own comic one day. For now, she'll study and spoil her calico cat, Stalinski.

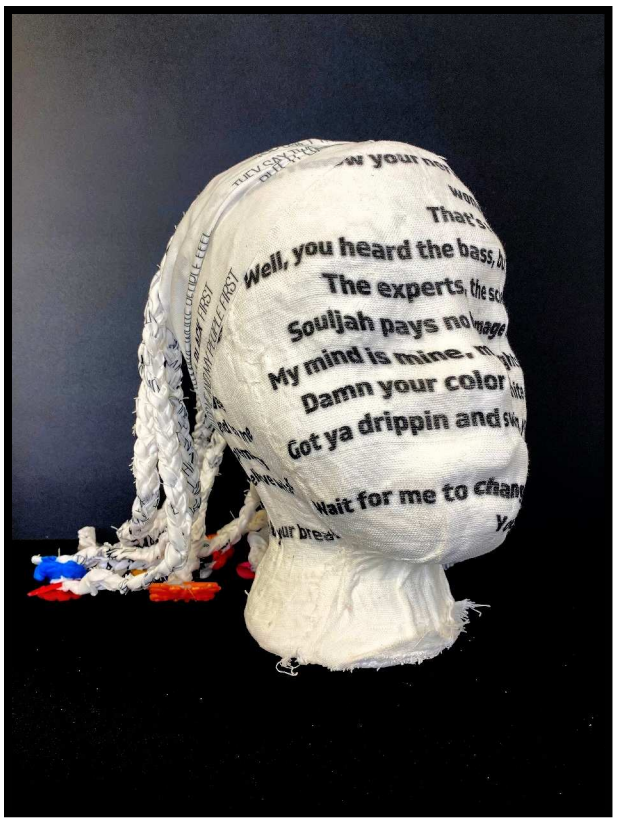




Why do objects have so much significance in our memories? Seeing certain items, like our first blanket or a teddy bear a loved one gives you creates a nostalgic and comforting feeling. Yet, not all items give us a happy feeling when we look at them. Every time I see a medical mask, I feel anxious and sad. The past few years, a medical mask has been a signifier of the COVID-19 virus and how our daily lives have changed so much. I don't want to feel sad every time I look at a mask, nor do I want to keep seeing masks thrown in the trash. Humans already create so much waste, and single-use masks have made the situation worse. How might I reduce mask waste, and also feel better when I see them? The answer wasn't clear at first. When I saw the "Botanical Expressions" exhibition at Cooper Hewitt, I noticed a beautiful tapestry adorned with scarlet red sakura flowers. From there, the only thing left to do was find out how I could transform face masks into flowers. After some trial and error, I found a way. I collected used masks from my family members and cleaned them with disinfectant spray. Then, I began cutting and gluing the masks, transforming their shape.  Little to say, this artwork helped me erase the sad connections I had to the mask before.

# AMEENAH JACKSON

**Ameenah Jackson** is a Muslim, Black artist born and raised in Brooklyn NY, who is aspiring to specialize in graphic design but dabbles in a variety of media. She is a beginner graphic designer and is working to gain experience. Jackson is currently focusing on learning different styles of graphic illustration. She is currently a senior at Brooklyn College InshaAllah (God willing) graduating with a BA in Art with a concentration in Digital Art.

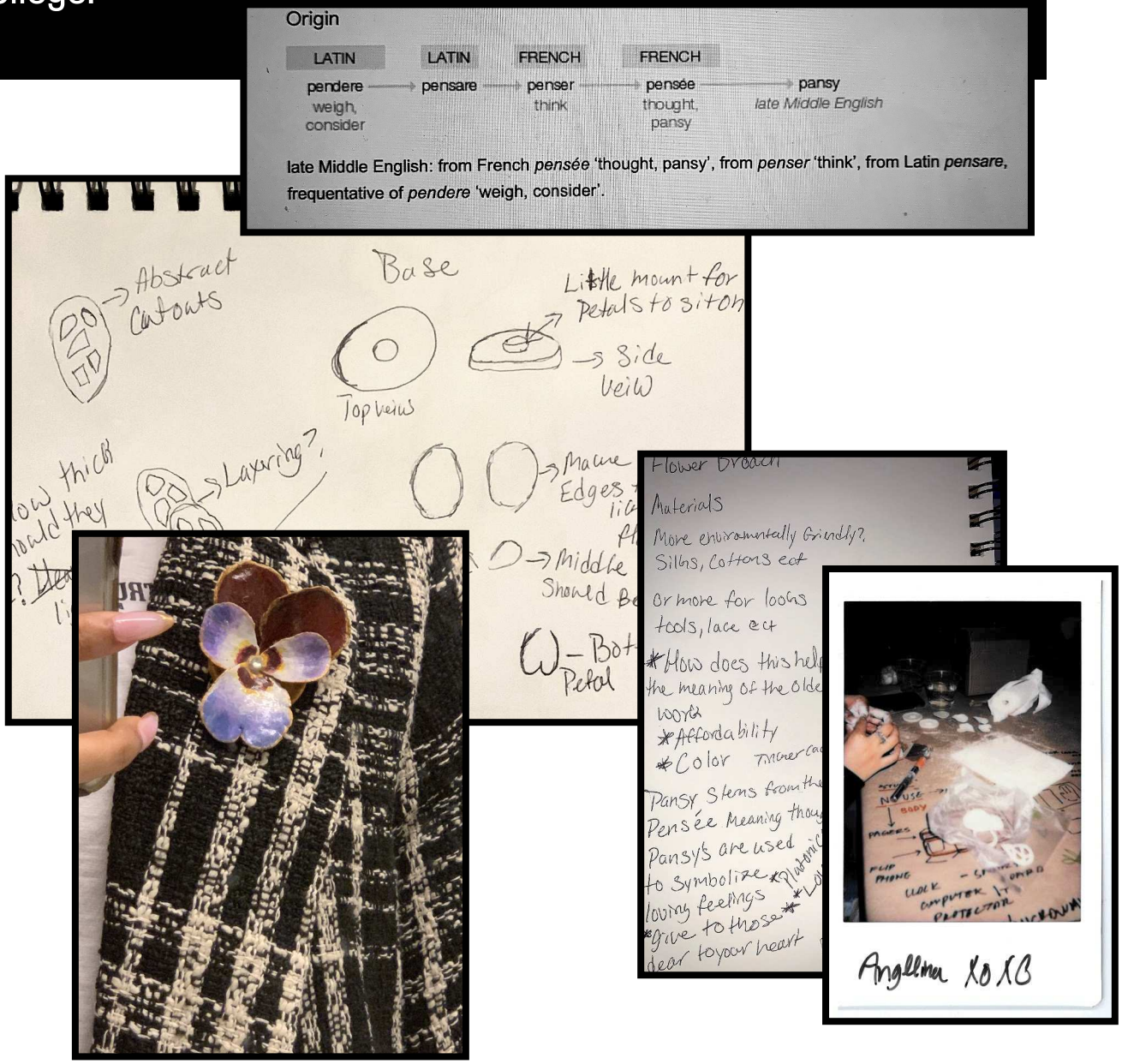



“We are more than just an expression” came about from a magazine cover of Sister Souljah. Black Women are portrayed as the “Angry Black Women” too often in the media. In this piece, I wanted to communicate that not only are we regular people, but we also have our innocence. We are human. Of course we get angry, that is not all we are. We have PhDs and Master degrees. We are hard workers that work 40-60 hrs a week to provide for our families. We are dancers and prances. We are feminine. We are Black Women.

The piece is made from a foam wig head which was first covered with clay to add shape to the face then covered in plaster then with a fabric with the lyrics of 2 of Sister Souljah’s songs. The box braids are also pieces of the fabric braided down. The bobos (hair clips) were an added touch to give the effect of innocence, since bobos are typically worn by children.

# ANGELINA CLARK

**Angelina Clark** is an African American Latina creative. Born & raised in Brooklyn NY, she is a visual artist as well as a future fashion designer. Well rounded in the visual & fine arts, she uses her varied skills to express her ideas. Currently, she attends a performing arts high school, and will major in fashion design in college.



“**Mindful Flower**” was inspired by a Tiffany brooch, and my attraction to its beauty and detail. In doing research, the question of why this specific flower was chosen came to mind. Pansies symbolize loving feelings & are ideal to give to loved ones. Also the word pansy comes from the French word “pensée”, which is the past tense of “to think”. These two meanings to me meant that a pansy should be given to a loved one or that the person who wears one is thoughtful. I felt these concepts were important to highlight, and I also wanted to connect these themes to address sustainability & affordability. The Tiffany Brooch pansy is made out of precious metals and stones. The mining industry impacts earth negatively, so the “Mindful Flower” Brooch is made out of clay. The outside is painted with gold colored acrylic paint & has specks of imitation gold leaf to symbolize the gold, the middle of the flower has a rhinestone to pay homage to Tiffany's design. Lastly, affordability is addressed in this piece. Not everyone can afford the materials used in the Tiffany brooch, so the use of affordable & accessible materials shows anyone can make a similar version like I have, or simply own something that's more accessible to them. Its wearer would be mindful, as it shows they care about these concepts while still trying to be fashionable. Ultimately, I wanted to give the piece a new meaning.

**Camille White** is a Brooklyn-based designer and artist with a passion for architecture, product, fashion and interior design. She is an incoming freshman studying chemistry and architecture at UCLA. White's artwork has appeared at the Metropolitan Museum of Art, and was selected to be a national Gold Medal recipient for the 2022 Scholastic Art and Writing Awards. She has pursued a variety of individual projects in chemistry, architecture, and materials science, seeking to break down disciplinary boundaries. During Design Hive, she has sought to merge her academic passions in an effort to combat climate change.

CAMILLE WHITE

# Transposing Vessels By Camille White

Jackrabbits typically live in climatic regions at which temperature fluctuations between night and day are quite common, such as deserts and prairies. The Black-Tailed jackrabbit is notorious for its extremely large ears, which have very large surface areas and are critical to the jackrabbit's survival through body temperature regulation. When external environmental temperatures are less than the jackrabbit's body temperature, blood vessels widen in a process called vasodilation. Vasodilation allows for increased circulation of warmer blood from the jackrabbit's core body to its ears. Heat transferal then occurs in blood vessels lining the surface of a jackrabbit's ears, as warm blood circulates the ears and excess heat is released into the surrounding environment through convection processes. This system also allows for water conservation in extremely dry climates (as opposed to other cooling mechanisms, such as sweating, which release large amounts of water). Heat enters and exits the body during extreme climatic temperatures through vascular countercurrent heat exchange, wherein heat is transferred from warmer to colder environments through nearby and opposing blood vessels (e.g. veins vs. arteries) for body temperature regulation.

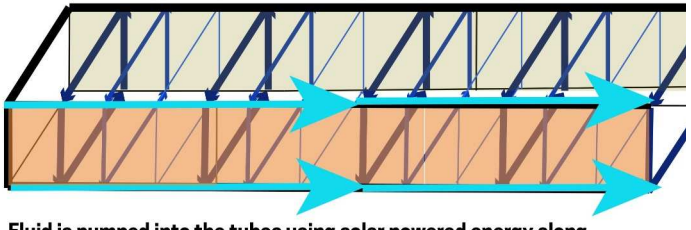
In a building, heat can enter and exit an interior space through walls and roofing. The temperature regulatory wall system, "Transposing Vessels," mimics these temperature regulating technologies evident in jackrabbits with respect to protecting building occupants from extreme temperature fluctuations caused by global warming in certain climatic conditions. The following prototype is composed of two main design systems: tubular vessels that allow for heat exchange in the interior of a constructed wall through water movement and shifting surface layers that replicate vasodilation processes in jackrabbits (mechanical vasodilation).

## Basic Mechanisms of this Wall System

Heat would hit the surface of the wall and enter tubular vessels filled with fluid moving in a continuous flow. As exterior temperatures shift and fluctuate, heat would be exchanged with the environment due to convection (on both sides of the wall--exterior and interior of a building) when fluid would come into contact with the surface of the walls, allowing for constant temperature regulation. Each blue rectangle in the drawing to the right represents a tubular vessel. Please note that these vessels have varying thicknesses, which is essential for "mechanical vasodilation."

Heat Energy Enters and Exits the System

Basic Drawing of the Wall System without Shifting Layers:



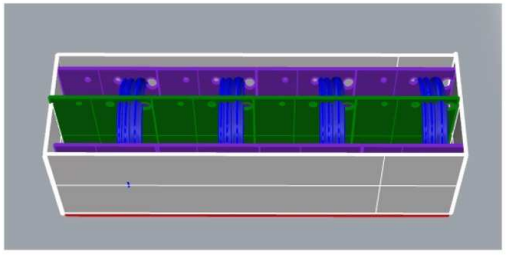
Fluid is pumped into the tubes using solar powered energy along the top edge of the wall. When surface layers of wall shift during mechanical vasodilation processes, fluid is drained from the bottom of the 'deligned' tube and is then re-pumped back into the aligned tubes (continuous cycle). Blue arrows indicate the direction of flowing water entering and exiting tubes.

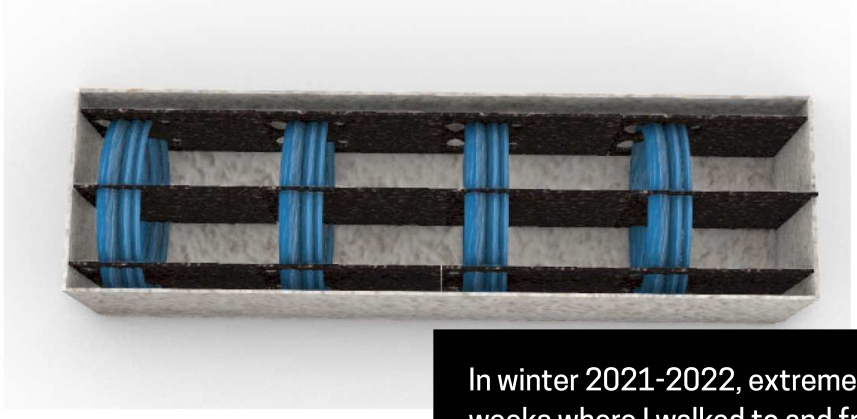
In order to mimic the vasodilation processes in jackrabbit ears, this wall system would be broken up into hundreds of different layers that would together form the volume of each tube through cross section integrals. To replicate the compression and contraction of blood vessels, these layers could be shifted (similar mechanics to sliding doors) to turn on and off varying sized tubes. For instance, if temperatures increased to extreme magnitudes, these layers would shift so that fluid, likely water, would flow through the wider tubes, allowing for increased circulation of heat from the interior to the exterior environments of the wall for heat exchange and temperature regulation. On the other hand, the vessels with smaller magnitudes would close during this shift, as indicated by the drawing below of two sample layers, due to lack of alignment between cross figures of smaller diameter, allowing for critical energy and fluid conservation. An understanding of which vessels would and would not be active in this system would be directly dependent on local exterior temperatures and climatic conditions.

# Prototype Renderings

**Please note that the proposed wall system would have more than 10 shifting layers. This prototype is a simpilized render of this design and only contains 3 shifting layers for mechanical vasodilation.**

**A potential material used to construct the shifting layers, tubular vessels and base of this prototypal wall could be mycelium. Mycelium is an industrial-level strength construction material that is, correspondingly to the surface of a jackrabbit's ear (or pinnae), very insulative and porous, which are qualities integral to temperature regulating construction materials. Mycelium is also water resistant and is considered a very environmentally advantageous building material in the current construction industry. However, additional research must be conducted to assess whether it would be a practical building material for this project.**

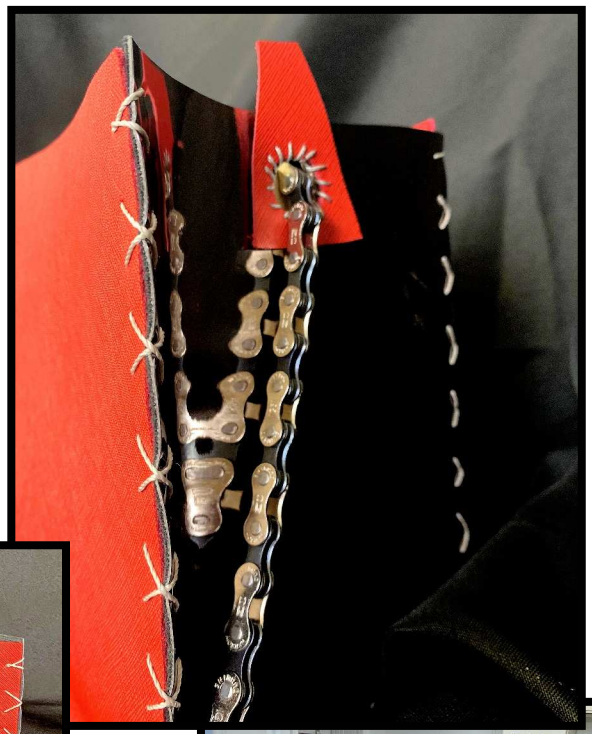


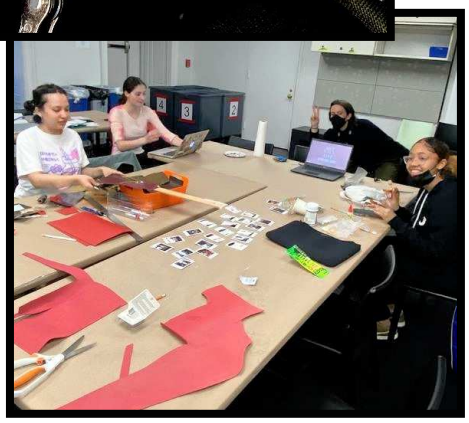


In winter 2021-2022, extreme temperature fluctuations in NYC were not uncommon. I remember weeks where I walked to and from school, the weather dramatically shifting between below-freezing, piercingly cold nights and nearly 70-degree afternoons filled with tourists on ice cream outings. There was one clear explanation for this strange phenomenon: global warming. As Earth's carbon footprint expands, climate change becomes an increasingly pressing threat both to the present and the future. After researching the biomimetic framework behind Neri Oxman's "Otaared", an object exhibited at Cooper Hewitt, I was inspired to design a system that could address extreme climatic conditions. I chose to design a specific component of a building that would address this issue, rather than an entire architectural system. I used concepts that I have learned in my academic explorations in calculus, materials science, and civil engineering to design a biomimetic wall system that could protect building occupants from extreme temperature fluctuation, based on the temperature-regulatory processes evident in jackrabbit ears.

# HANA RODRIGUEZ

**Hana Rodriguez** is a Bronx-based, Japanese-Dominican artist and designer. She is currently a senior at the Bronx High School of Science. She plans to attend Macaulay Hunter College, where she will study chemistry and the studio arts.

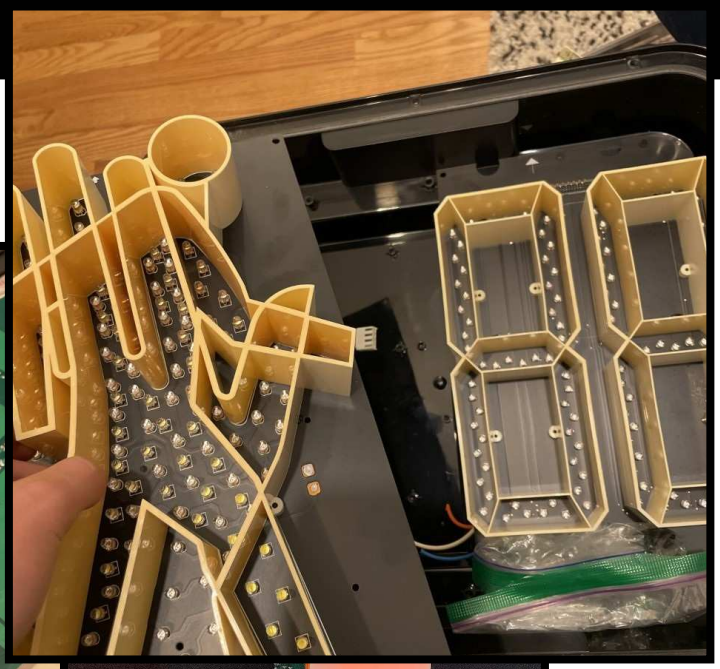


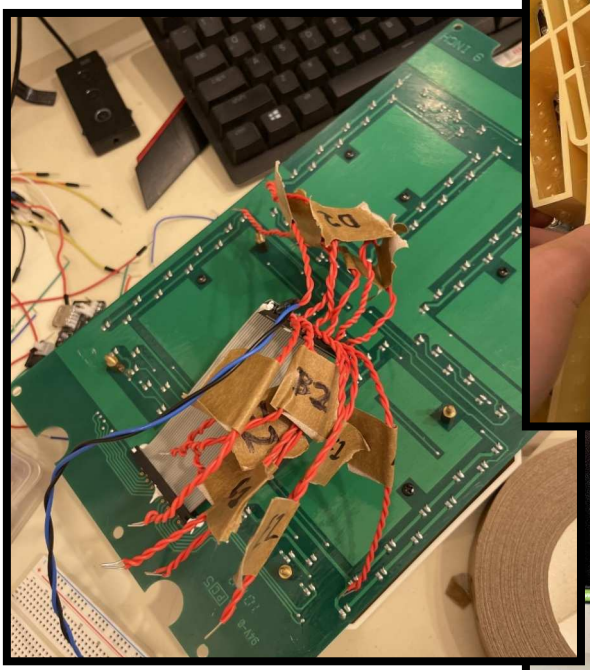


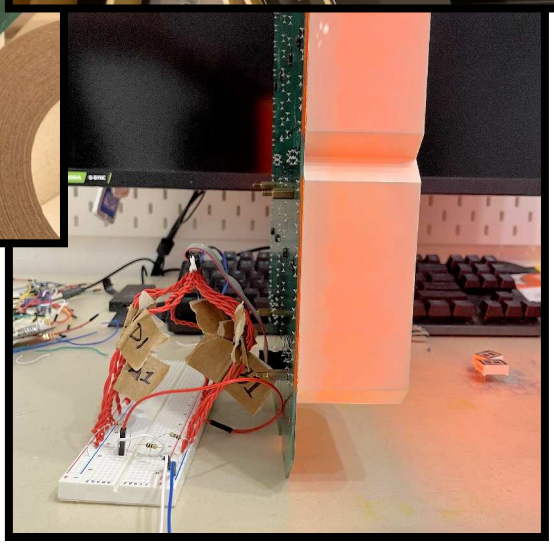
With so many objects around us everyday, it is hard to stand still and admire them. Taking inspiration from the Videosphere Model 3240, Hana created a bag to resemble a radio. She used a striking red leather that is the same shade as the videosphere that inspired the piece. The leather used in this piece is upcycled, and from textile recycling studio FabScrap.  For the strap of the bag, Hana reused a bike chain to express the uniqueness of upcycled objects.

# ORRI ZUSSMAN

**Orri Zussman** is a Manhattan based Israeli-American and aspiring engineer and designer. He currently attends the High School for Math Science and Engineering at CCNY, where he specializes in digital electronics and mechanical engineering fundamentals.



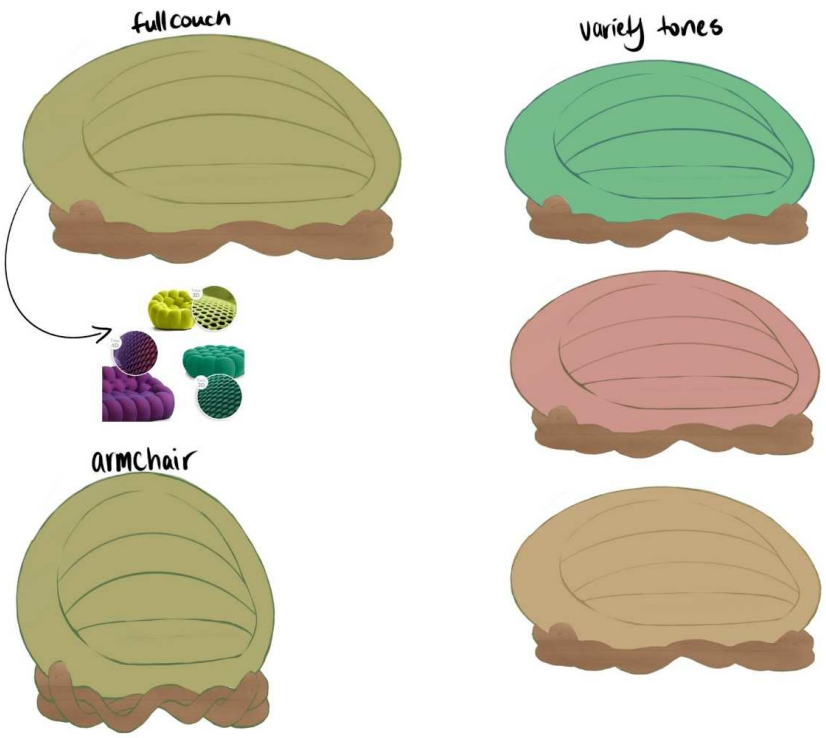




In our resource-limited world, one man's trash **must** become another man's treasure. Zussman embraces this idea by taking an old crosswalk traffic light that lost a few of its LED’s. The light was deemed unsafe for the street and was headed to the dump, like millions of tech products that can no longer serve their original intended purpose. He took the light and used his rudimentary electronics knowledge to control the traffic light. The light became a common household item: a calendar! In the three green R’s (reduce, reuse, recycle), we often forget the second. Just because an object isn't performing its original use, doesn’t mean it’s useless.

# PARIS JEROME

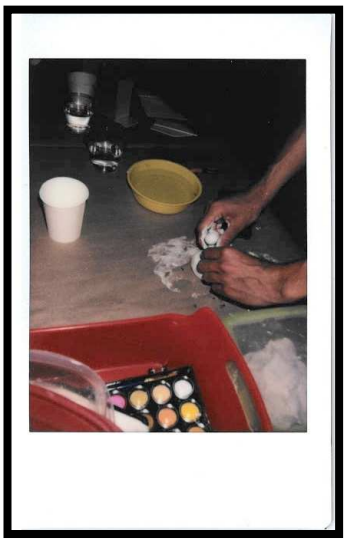
**Paris Jerome** is a New York-based black non-binary artist specializing in illustration, character design and creative writing. They prioritize art and design that speaks to the needs and experiences of others. Relating to sociology, the context of people's environments and identities that affect their experiences in the world is one of Jerome’s focuses on creating dynamic art and design especially in problem solving. Jerome is currently a senior at Brooklyn College achieving a BFA and will be continuing education for a Masters degree with hopes to major in a program that will further their skills on illustration and novel creating




Safety and comfort are basic necessities that everyone deserves. Recreational facilities are integral in cities and spaces where people feel they can relax and escape are important for society especially for marginalized people. These centers tend to lack imagination and humanity in their designs as a way to be efficient, but you don't have to sacrifice aesthetics for functionality. The furniture I created consists of a couch, a single seat and both for studying or eating in the center. These furniture pieces are meant to be a part of a larger concept of creating an art nouveau inspired center and would be placed in areas for leisure and study in the main entrance. With similar material as the Roche Bobois upholstered 3D fabric and sustainable material that replicates wood for the platform to achieve an otherworldly but conservation friendly furniture piece. I was compelled to take this direction in creating these pieces to help inspire and uplift those that would utilize the center, targeting it to BIPOC and queer individuals seeking a space to relax with accessibility for disabled people. This is in a way combatting hostile architecture that tends to bleed into spaces meant for people to commune. This furniture can also be utilized in other public spaces to further bring comfort and beauty to the public.

# PEDRO FERREIRA

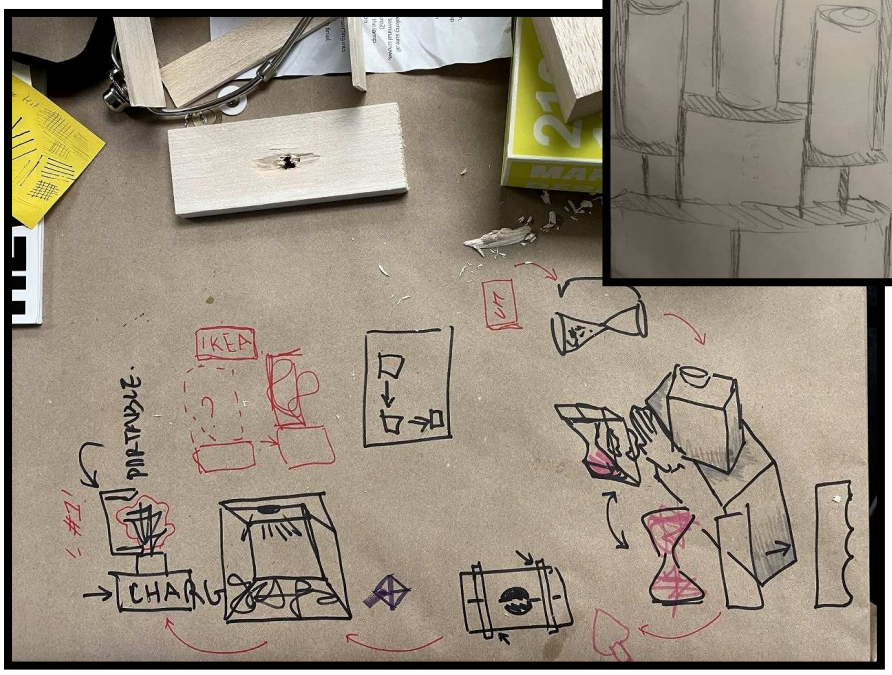
**Pedro Ferreira** is a New York based multi-disciplinary artist. With a background in fashion design and graphic design, he uses his abilities to convey ideas about present day technology and its effects on our society. Without any other formal training, Pedro tries to incorporate various art styles into his work to help further convey his ideas and showcase his opinions on modern day society.

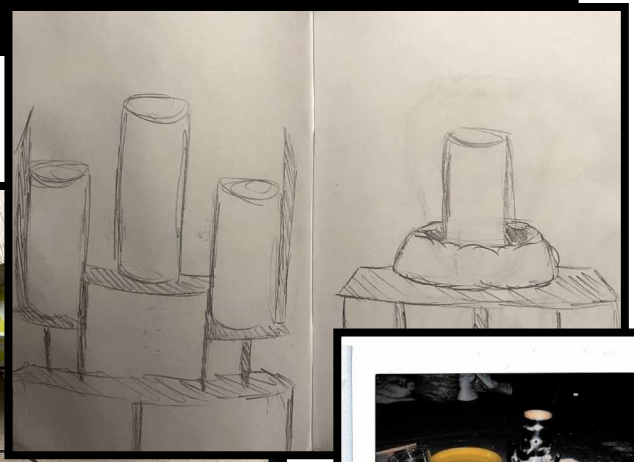


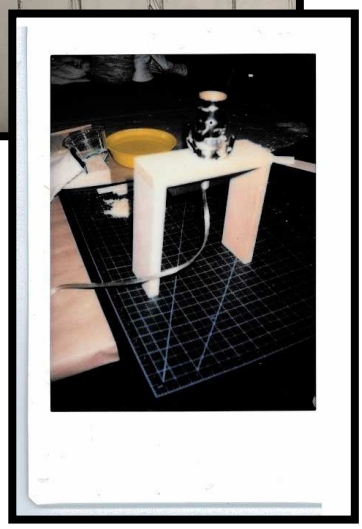
Our world is filled with addiction, more now than ever. With technology advancements on the rise, people are becoming more and more dependent on their smartphones. Although potentially helpful, technology, and more specifically, social media can have detrimental effects on adults and young adults. In turn, this has led to phones becoming like an attachment to anyone who possesses it, almost like a kidney.

# TANBIR ALAM

**Tanbir Alam** is a Bengali-American male aspiring designer, born and raised in New York City. From a young age, art was an outlet and escape from reality. Alam grew up with pencil drawings and gradually started getting into digital art as time went on. From there, character design was his go-to. As he attended high school, he witnessed the practices of mechanical engineering, specifically in the aviation field and learned the fundamentals of hands-on work. Today, Alam is heading to Baruch College and plans on focusing on design in business. He is still exploring many different kinds of design, especially fashion design and architecture and is exploring the concept of experimenting and prototyping in his projects.





My project was inspired by the environment, and wanting to make a change and positive impact to the world. I immediately thought of the light pollution that hovers above the horizon of New York City. I thought to myself, what could we do to change the lights we regularly use? Bioluminescence. With bioluminescence, light is produced by microorganisms. So I came up with the notion of transforming an ordinary house lamp into one that holds bioluminescence. I created a prototype that simulates what a bioluminescent lamp would look like. I used wood, acrylic paint, and constructed a light source to replicate that of a bioluminescent light. In the end, I hope to open people's eyes to light pollution and inspire them to understand the power of bioluminescence.

**Dear Hive,**

We are so proud of all the work you've done this year! It was so inspiring to spend every Thursday with you and we can't wait to see what you do next. We are already looking forward to inviting you back to work with future Design Hive students!

**- Cecilia + Kirsten**

# DRAWINGS + NOTES

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