





Traditional material libraries are archives of physical material samples used for design purposes. Most often created and used by architects, as well as interior and industrial designers, these resources allow creatives to better select materials for a project. The Design, Sustainability & Culture class took inspiration from this format to create an experimental educational resource—a digital archive consisting of two distinct collections:



The samples archive features experimental and speculative materials for sustainable alternatives. These were created and tested by the students. Some of the materials in this collection are more feasible or ready-to-use than others, but all serve to expand our ideas of material possibility.

Click to browse  
SAMPLES by artist:



The specimens archive is composed of raw, waste and/or single-use forms and materials gathered from our local community (Kenyon College campus and surrounding areas). This collection offers a hyper-local snapshot of just some of the materials currently in circulation in our environment, and sheds light on both individual and collective habits of use.

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SPECIMENS by artist:](#)



## Eggshell Biocomposite

### *Sample*



I made this biocomposite sample by adding crushed up eggshells to a water & agar mix and then pouring vinegar over the mixture, using a small paint dish as a mold. After about one hour I flipped it over to make sure it dried evenly on both sides before leaving it to dry for another hour. After an hour, I drained the vinegar out.

*A clump of brown and white bits of eggshells mixed together shaped like a stone. The eggshells are held together with a water and agar mix, creating a disc about a half inch in thickness.*



## Eggshell Biocomposite II

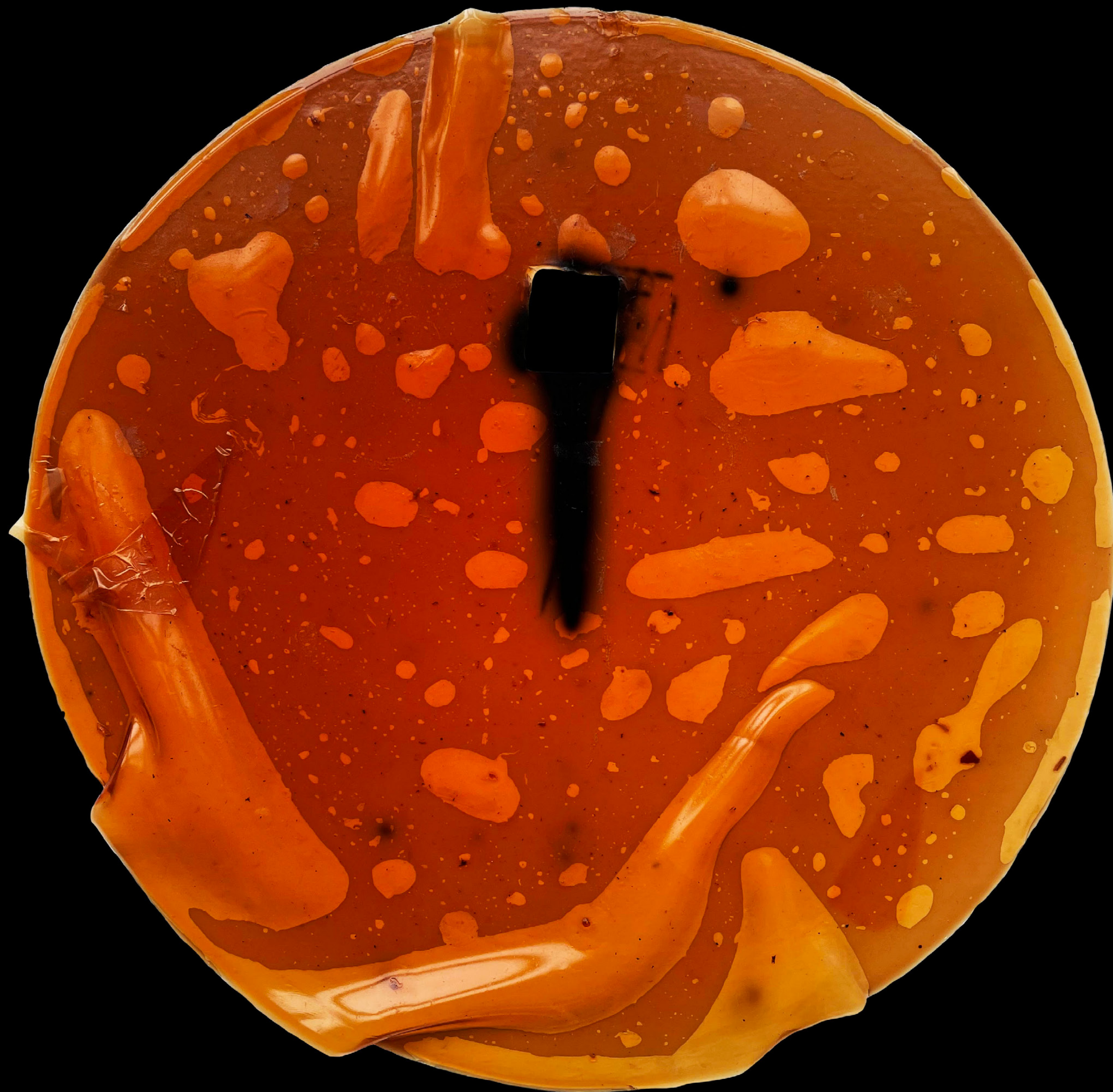
### *Sample*



For this biocomposite, I crushed up the eggshells into much smaller bits, and added a bit more vinegar. I also used a curved mold, hoping to make a bowl. However, because of the way that this kind of biocomposite dries (and because I did not drain the vinegar), I had to break it up into smaller pieces. Interestingly, even though I tried to make it thinner, it ended up about the same thickness as the first eggshell biocomposite.

*A small, vertically oriented rectangular shape made of crushed white eggshells. The eggshells are held together with a gooey agar & water mix, and the shape is a bit shiny and reflective as it has yet to fully dry.*





## Red Onion Skin Bioplastic Sheet

Sample

I made this bioplastic sheet with a water base that had been dyed by boiling onion skins in it. I then added agar and glycerol, but accidentally poured in too much glycerol. The extra glycerol gave the bioplastic a more jelly-like texture and also made it a bit wetter.

*A circular sheet of dark orange bioplastic with some bubbles in it. The dark orange fades into a lighter orange on the edges of the shape, where it thins out. There is a vertically oriented black line created by natural sediment in the center of the bioplastic, starting at its center and going a few inches up, but not reaching the edge.*



## White Onion Skin Bioplastic Sheet

*Sample*



This bioplastic was also made with a water base that had been dyed with onion skins, but was more diluted and also dyed with white onion skins, giving it a lighter color. There was a bit less of it as well, which made a thinner sheet of bioplastic that was, ironically, similar in texture to onion skin.

*A very thin and papery circular sheet of yellow-orange bioplastic. There are some folds in it that were formed as it dried, as well as a few spots of mold that grew while it was drying. It is a lighter yellow at the edges where it is curled up and a bit crinkled.*



## Red Onion Skin Dye

*Sample*



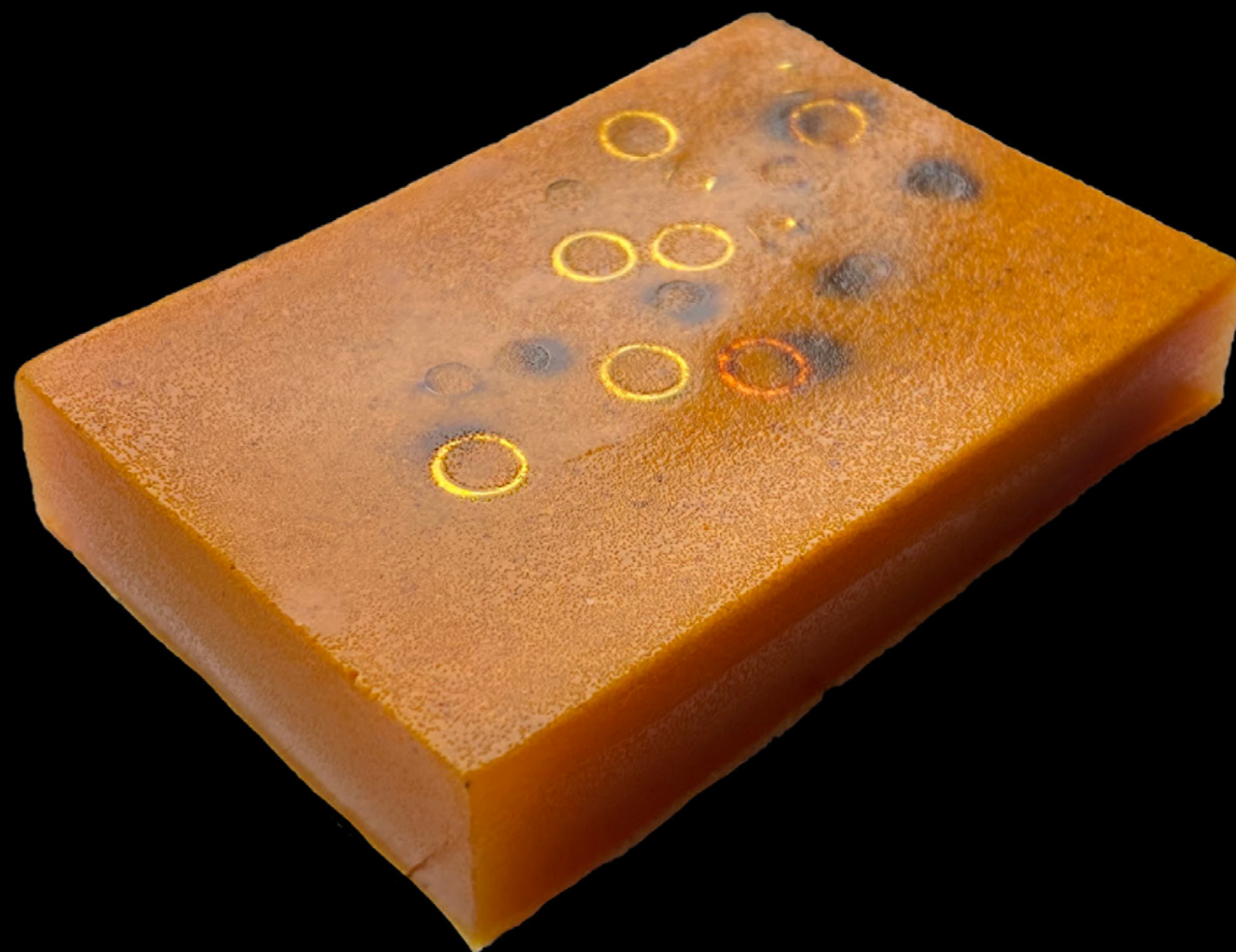
This dye was made by collecting red onion skins and boiling them in a pot of water. After the water started boiling rapidly, I removed the pot from heat and let it sit for a few minutes before draining it.

*A rectangular clear plastic container with a few dents in the bottom and sides is filled about a third of the way up with the dye. It has the same properties as water, and is deep red in color.*



## Metal Bioplastic

*Sample*



The bioplastic was made using the traditional ingredients, and has turmeric and metal pieces added to it. It has a slimy texture, and moves in a similar manner to jello. It doesn't allow for light to pass through it.

*This is a forty five degree and slightly raised view of a rectangular cuboid. The cuboid is orange, but not uniformly, as some of the turmeric dots gather in certain spots. In random orientation, some of the metal rings appear right below the surface of the bioplastic, and are shiny and gold. The ones that have sunk slightly below the surface appear as dark smudges on the surface.*



## Wheat Paste

### *Sample*



Wheat paste is a natural glue made from sugar, wheat flour (or other starches), and water. It has historically been used for paper mache, decoupage, bookbinding and other crafts and is surprisingly strong.

*A glob of off-white goo sits on a black background. This natural glue (or wheat paste) is made from sugar, water, and flour. In this image, light reflects off the left side of the dollop, showing the shiny, almost liquidy nature of the substance.*



## Shaped Paper

### Sample



Homemade paper has been being made for centuries. Forming the pulp used to make recycled paper into new shapes creates a new medium. This dried paper ball became dense but light, a versatile material that could probably be used to make boxes and other storage receptacles.

*A rough, malformed paper ball sits on a lack background. If you look more closely, you can start to see all the materials that have come together to form this object, like newspaper scrap, pink thread, and various colors of different kinds of paper.*





## Muslin Rope

*Sample*

Muslin is not a very strong material on its own but when ripped up into thin strips and braided together, it can create a fairly solid rope. This material could be used as rope or it could be woven together to create mats, baskets, bags and other items.

*A scraggly, white rope placed in an upside down U-shape on a black background. The ends of the rope are tied in a knot with the extra strips of fabric hanging off like tassels.*



## Flour Bioplastic

### *Sample*



This bioplastic was made with agar. Flour was used as a supplemental ingredient to help thicken the mixture. This material would be more effective if dried in thin sheets instead of a dense block.

*A round, white slab of bioplastic sits on a black background. There are small holes on the surface of the material, showing where bubbles popped during the drying process.*





## Coffee Stirrer Plywood

### *Sample*

Plywood is a material made from many thin layers of wood glued together, rotating the direction of the grain between sections to create greater strength. Coffee stirrers on their own are extremely fragile but when glued together (with a natural wheat paste) a stronger, but still fairly flexible, material is created.

*A long brown, wooden coffee stirrer stick sits on a black background. In the upper right corner of the image, a close up of the side of the material is shown. Five thin sticks have been glued together, creating layers of wood.*



## Corn Starch Vinegar Bioplastic

### *Sample*



This was made from a recipe I found online but I changed some of the amounts. It was made of water, corn starch, vinegar, and glycerol. It took about a week to fully dry out. The final product was clear, stretchy, sticky, and somewhat fragile.

*A thin, clear piece of twisted material with a slight shine and the appearance of air bubbles throughout the sample.*



## Scrap Paper Flower

*Sample*



This was made using the technique we learned in the paper making demonstration. I used scrap paper from my desk that would have been thrown out plus some cut up scrap fabric. I used a flower shaped tin to mold it. It took almost two weeks to fully dry but once it was it was quite fragile and crumbly around the edges but pretty solid in the thickest parts

*A flower shaped cake tin with a pink, pulpy substance that covers the outside ring of the flower pan.*



## Wax Paper

*Sample*



This was made using the paper from the paper making demonstration. I melted a used candle that was going to be thrown out and poured it over the paper to make it somewhat water resistant. It ended up having the same feel as wax paper but much thicker.

*A rough, gray sheet of paper with an uneven coating of shiny material in the middle and white, cloudy substance that coats the top right corner as well as the bottom corners.*



## Wax Glycerol Composite

### *Sample*



This was made using the leftover wax from my wax paper and adding some glycerol to see if it would change the texture. In a warmer state it was squishier than normal wax would be and it seemed to hold its shape much better. I also added some poke berry but the hydrophobic nature of the wax made it so the dye wouldn't hold in the mixture but there is a faint pink tint.

*A pinkish blob of sample that has a shine and uneven ridges throughout that appear to be from it being smushed in a hand.*



## Goldenrod Flower Agar Bioplastic Sample



This was made from the agar bioplastic we made in class and dried GoldenRod flowers. It ended up being quite squishy and the flowers all floated to the top which made for an interesting texture at the top. It took about a week to dry and in the process developed a mold.

*A close to perfectly rounded object made of clear bioplastic mixed with Goldenrod flowers which floated to create a multicolored (browns and yellows) texture on the top. It is more heavily concentrated with the flowers in the middle of the circle leaving some gaps of pure agar in the edges.*



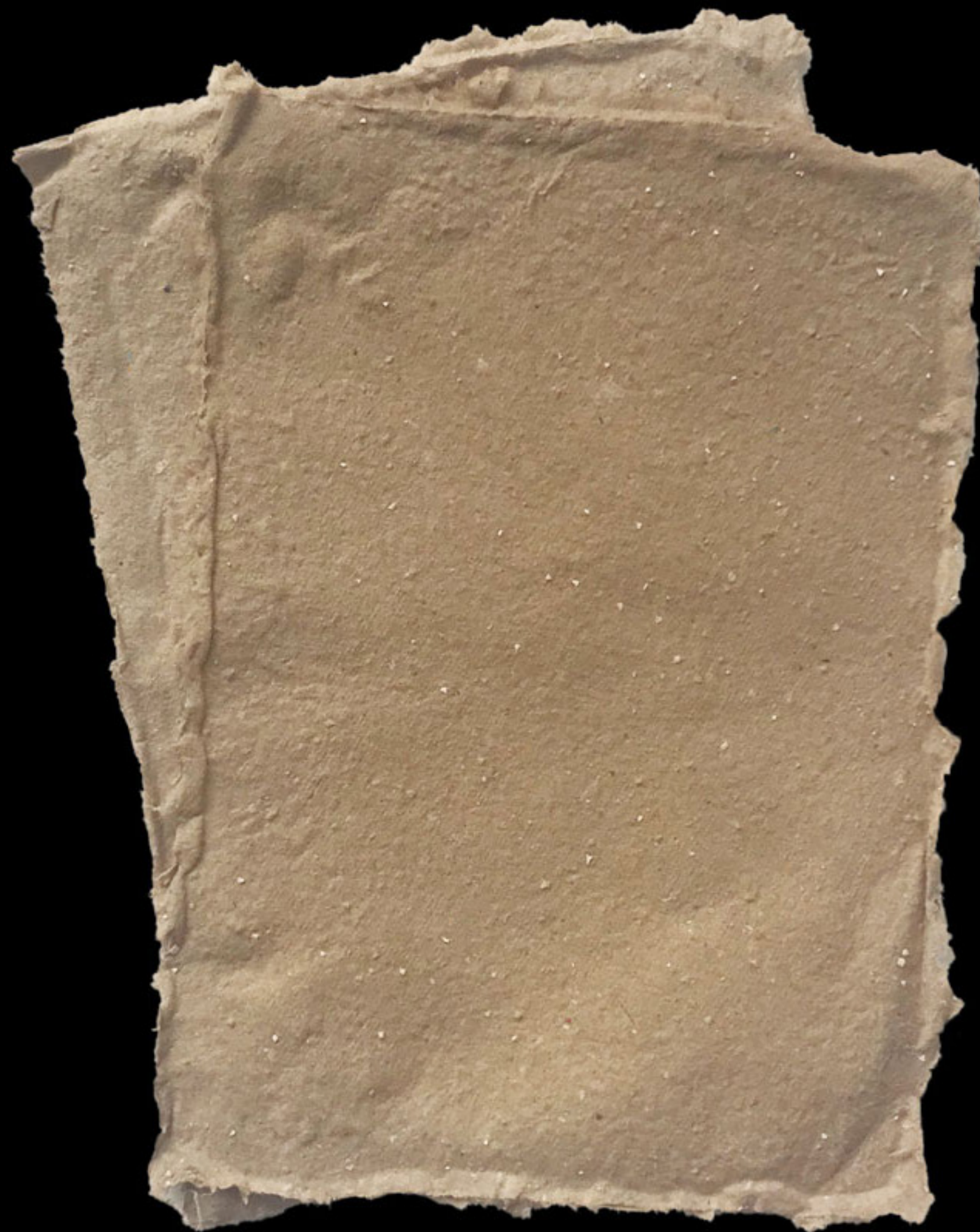
## Avocado, Agar & Banana Peel Cob *Sample*



Cob is a sustainable building material made from a combination of earth, straw, and clay used all over the world. This cob sample is made by combining sediments created by grinding up avocado seeds and skins, agar, and dried banana peels. Agar is the binding agent, and since it is not as strong as clay this would likely work better for indoor projects.

*This is an image of an avocado-based cob set on a black background. The cob is highly textured and there are black strips of banana peel visible on its cracked surface.*





## Eggshell Paper

### *Sample*

This paper was made from the cardboard tissue box and eggshell powder. The cardboard was ripped up, soaked, then blended with the eggshell powder to a fine pulp, which gives it its even coloring and texture. Eggshell powder also softens and smooths out paper for better results when printing.

*This is an image of two sheets of homemade recycled paper stacked on top of each other. The paper is light brown with deckled edges and visible bits of eggshell sprinkled throughout.*





## Lamb's Ear Bioplastic Bandage *Sample*

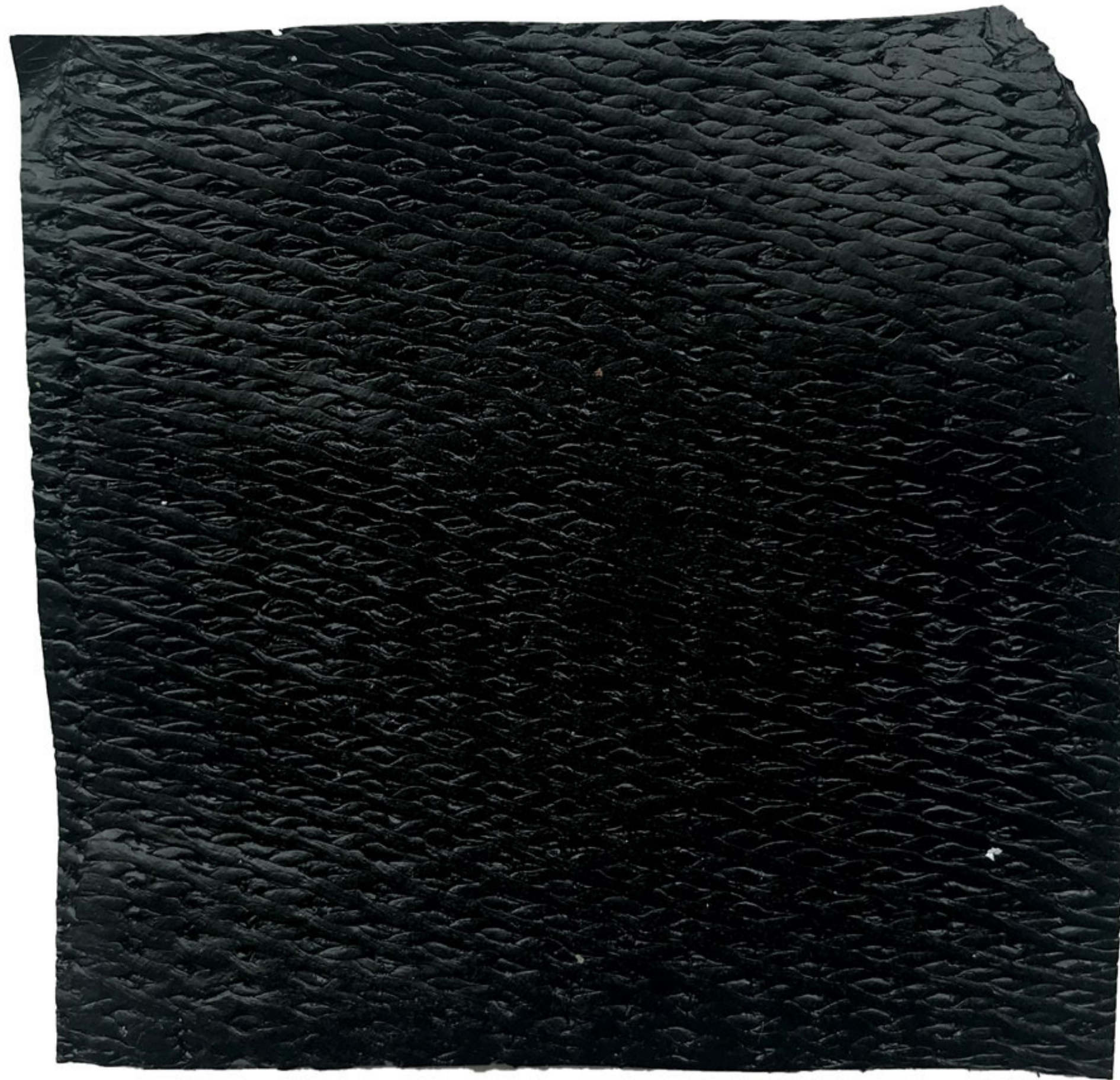
Lamb's ear's antimicrobial properties make it a good bandage if needed, but it is not a practical solution. I envisioned that this bioplastic made with lamb's ear could be an alternative to plastic bandages. This bioplastic was created by boiling the lamb's ear in water, and then adding and heating agar and glycerol. The result is a thin, moderately sticky film.

*This is an image of a green, shiny triangle of lamb's ear bioplastic on a black background. The translucent material is folded on itself and the edges are somewhat ragged.*



## Polyethylene square

*Sample*



This material was made from melting layers of polyethylene mesh and a plastic bag to form an opaque waterproof material that could be used as a building block for permanent projects like furniture. It is durable, bendable, and highly customizable because layers of the mesh and plastic bags can be stacked indefinitely as long as they can be melted. In its warmed state it is also very malleable.

*This is an image of a black plastic square on a white background. The square has a horizontal diamond mesh pattern on it.*



## Twist Tie Thread

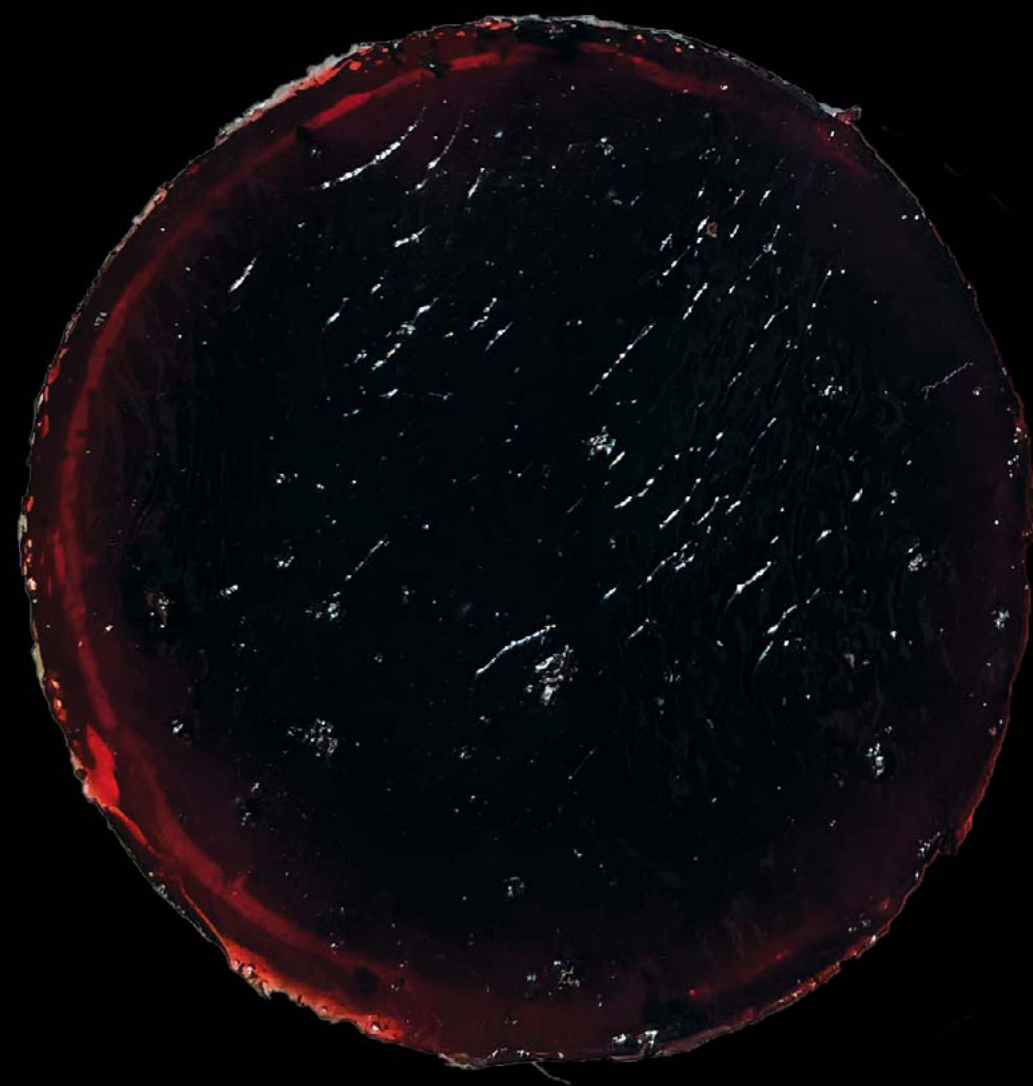
*Sample*



This thread was created by peeling the paper off of twist ties and wrapping them together, then melting the plastic coating to seal the thread together. It is extremely malleable and can be lengthened indefinitely. The threads could be combined to create longer and larger ropes, or used as is for smaller projects.

*This is an image of two twist tie threads on a black background. The left thread is bent in an elongated s-curve, while the right is twisted like a corkscrew. Both are a very light gray-green.*





## Agar Bioplastic

### *Sample*

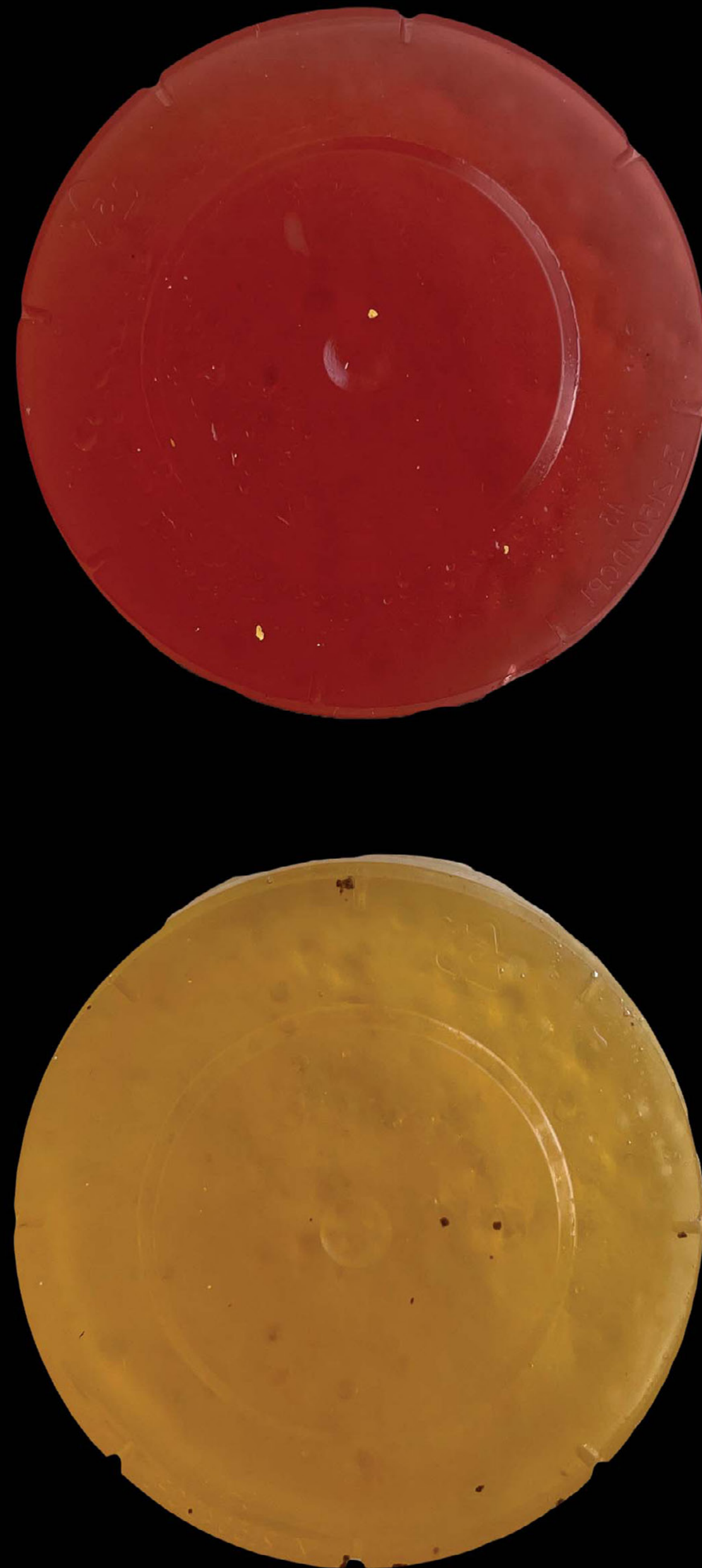
This bioplastic is made by boiling agar agar, which is a fine powder derived from seaweed, water, and glycerol. I colored the sample with dried cochineals, which left a dark red color. Over time, the sample dries and becomes shrunken, as well as growing a small amount of mold. The cochineal and gelatinous texture causes the substance to leave behind a red imprint, almost like the trail of a slug, which, like the cochineal ink, dries grey.

*A soft and jello-like round, colored a deep berry-toned red. The substance starts as wet and jiggly, leaving behind a colored slug-like trail when placed and picked up. It has no obvious smell, but a visceral and temporal texture.*



## Beef Gelatin Bioplastic

### *Sample*



This bioplastic is made by boiling organic beef gelatin, water, and glycerol. The material starts out as gelatinous but firm and gradually becomes shrunken and firm over time with exposure to air. It smells heavily of beef broth, and has grown some mold over time. The top sample (red) is colored with pokeberry and the bottom sample (yellow) is the natural coloring of the bioplastic.

*A pungent and jiggly piece of gelatin bioplastic. The sample smells salty and savory, like beef bone broth. It is firm but flexible.*





## Corn Starch Bioplastic

### *Sample*

This iteration of bioplastic was made by cooking corn starch, white vinegar, water, and glycerol over a low heat in a pot. The mixture did not require a boil and thickened very quickly to a paste. In a thick circular mold (right) it set very soft, falling apart easily and taking many days to harden noticeably. The thin sample, which was spread on a piece of wax paper (left, colored with turmeric) set much better, but is still delicate and slightly brittle.

*On the left, a thin piece of bioplastic, colored a deep and vibrant yellow, delicate and leathery to the touch. On the right, a thick round of the same material, uncolored, creating a creamy white color. This sample is much softer and gelatinous, feeling wet to the touch. Both samples smell heavily of vinegar.*





## Dried Leaf Weaving

### *Sample*

I created this material by cutting out strips of dried leaves (found on the patio outside Horvitz Hall) with an exacto knife and weaving them together. I used masking tape to keep the strips in place while I made the lattice pattern. The material does not keep together very well, but could be made stronger with a loom technique and closer, tighter latticework.

*A square of lattice-patterned strips of dried leaves, cut into long rectangles. The weaving is loose, the leaves crinkly and crisp to the touch. Most of the leaves are a subtle green, although two strips are a light burnt sienna, having changed more with the autumn.*





## Grass Weaving

### Sample

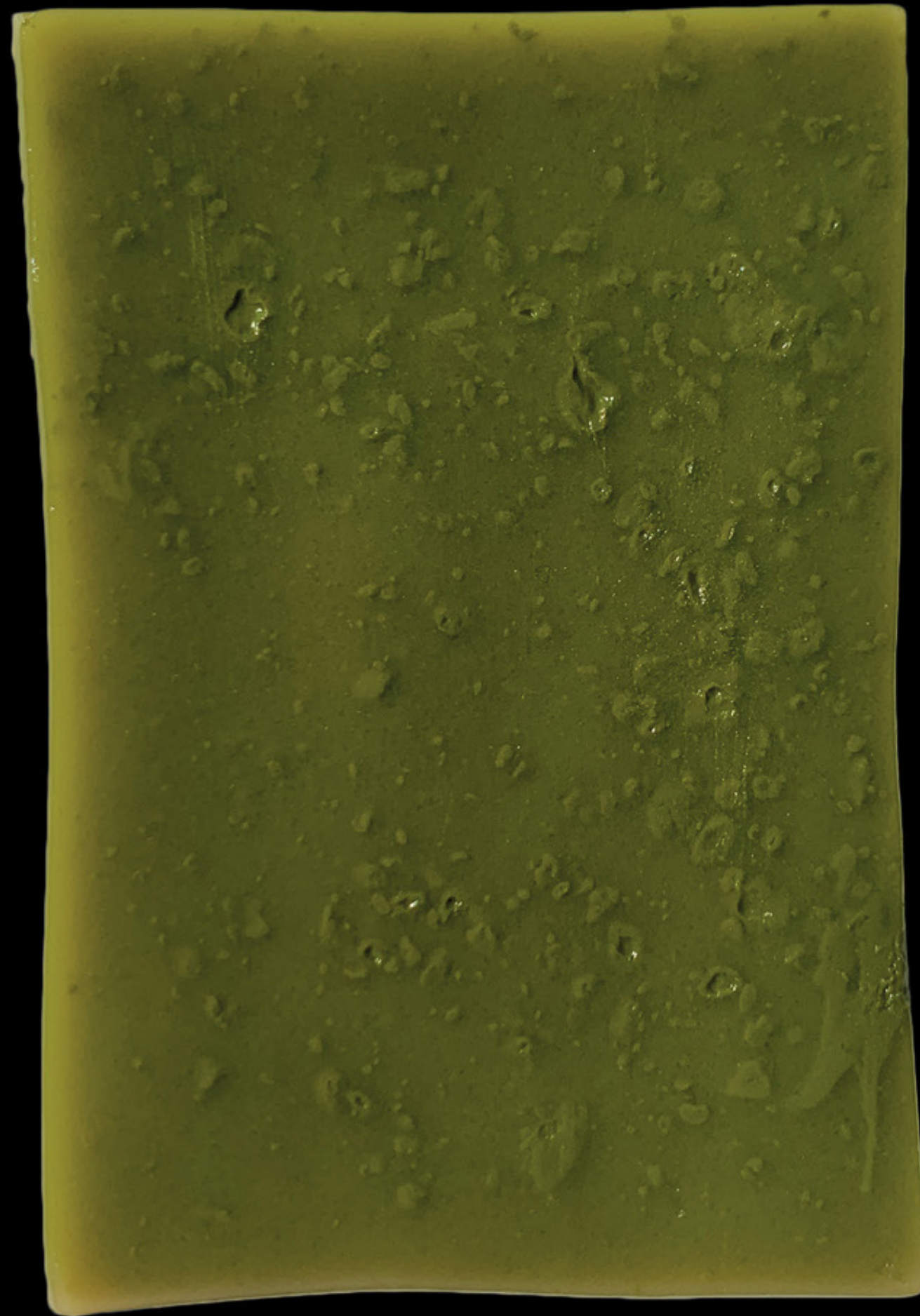
I created this similarly to the dried leaf weaving, although with grass pulled from the lawn outside Horvitz Hall. The already strip-shaped blades of grass allowed for a tighter weave, although they required small and nimble fingers to do the small-scale weave. Again, a small loom would allow for this textile to hold better, along with some kind of adhesive or binding along the edges of the square where the blades are unwoven.

*A tight lattice-patterned square of grass, the edges of the weave loose and extending from the edges. The blades are not yet dry, having a soft and supple texture, and a bright green color, some with a yellow speckling. The ends of the blades of grass are either pointed or a rough edge, where the maker pulled the grass from the lawn.*



## Matcha Bioplastic

### *Sample*



I chose to add matcha to the bioplastic for its unique, vibrant color, but unfortunately the addition of this food material caused the bioplastic to mold shortly after demolding it. I think I also could have tried to mix the powder in the liquid bioplastic first rather than pouring it on top to get it more evenly incorporated.

*A rectangular piece of agar bioplastic before completely drying out. It has been colored green with matcha powder, and pockets of powder that were not completely dissolved can be seen on the surface.*



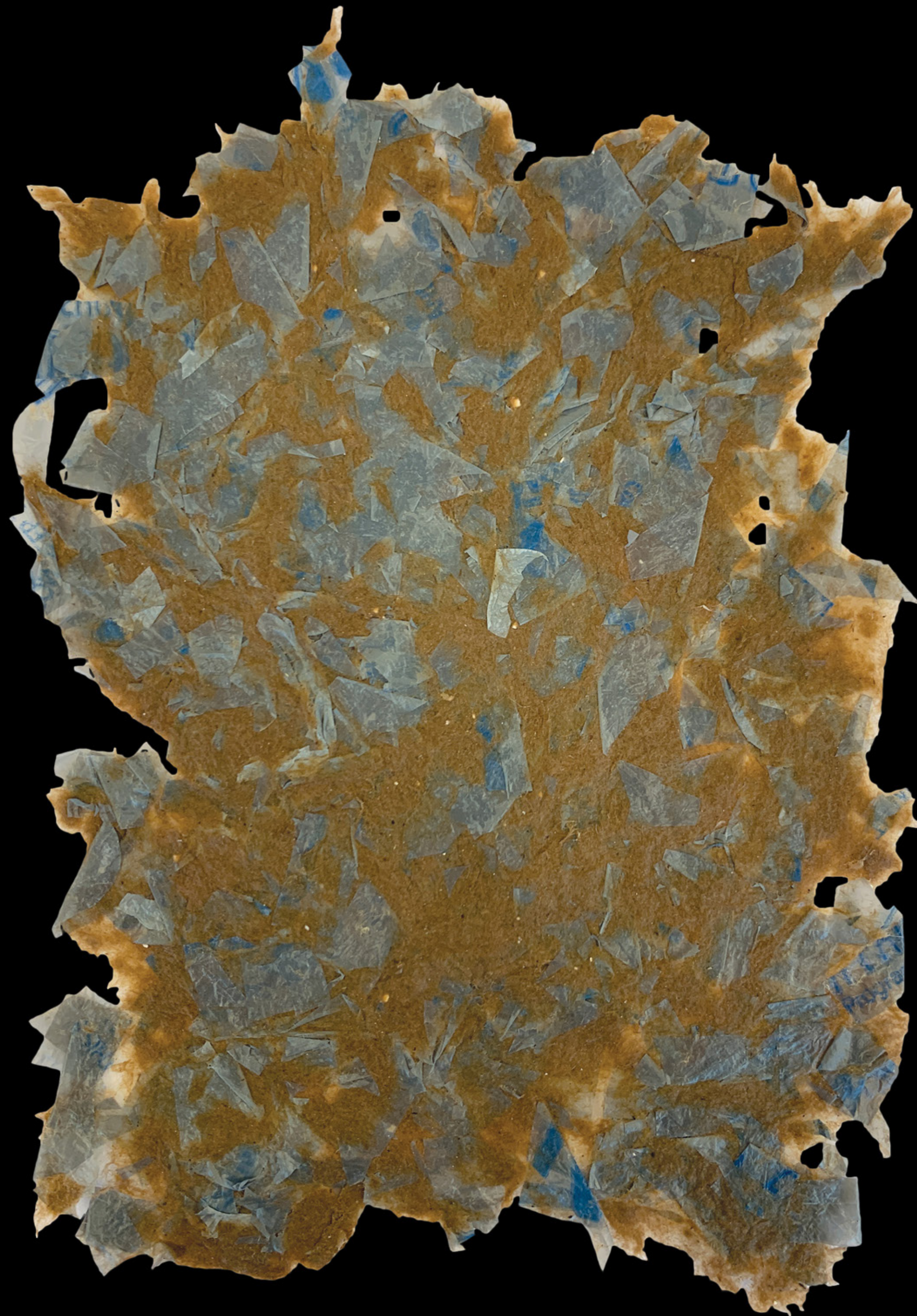
## Layered Paper & Bioplastic Composite Sample



I created this sample with the plain agar bioplastic base. I poured a small layer into the rectangle mold, then added a piece of paper, then poured more bioplastic, and added another piece of paper, and so on until the mold was full. I'm Interested in seeing how this will shrink when it dries, or if the paper will help it keep a lot of its surface area.

*Rectangular bioplastic sample with pieces of brown craft paper layered inside of it. There are 5 paper layers unevenly spaced throughout the translucent bioplastic.*





## Plastic Bag Paper

*Sample*

This composite was interesting to me in terms of how well it may function as a paper. I am curious as to what effect the plastic bag would have on various inks for printing or writing, or even other drawing materials.

*Handmade paper made from plastic bag pieces and brown craft paper. The bag pieces are gray, some featuring blue text. The sheet itself is roughly rectangular, but has very rough edges, and some holes or gaps.*





## Coffee Filter Paper with Avocado Skin Dye *Sample*

To create this paper, I used ripped up coffee filters. I wanted to experiment with coloring the paper, so I added in avocado skin natural dye. The color from that was not very strong, but I like the subtle tan shade.

*Handmade paper from coffee filters with natural dye from avocado skins. The dye gives the paper a light tan coloring. The sheet is irregularly shaped, and contains some plastic bag debris from the previous paper making.*



## Pokeberry Dye Bioplastic

### *Sample*



I added the dye to this bioplastic with a dropper, squeezing more out at once for the more concentrated areas, and dropping it slowly for less concentrated areas. This left a really interesting texture on the surface where I dropped in the dye.

*Agar Bioplastic rectangle dyed pink with pokeberry dye. The dye is more concentrated in some areas than others, producing darker spots. The dropper application of the dye has left a cratered texture on the bioplastic's surface.*



## Onion Skin Dye

*Sample*



*A reddish amber thin liquid in a glass jar. This jar is a common mason jar and holds approximately 8 ounces of dye. This liquid is see-through and keeps its color without any separation due to the dye being made from onion skins.*



## Turmeric Dye

### *Sample*



*A dull yellow thick liquid in a glass jar. This jar is a common mason jar and holds approximately 8 ounces of dye. This liquid isn't see-through and has trouble keeping its color consistent and is prone to separating due to it being made from turmeric powder.*



## Coffee Dye

*Sample*



*A very dark brown thin liquid in a glass jar. This jar is a common mason jar and holds approximately 8 ounces of dye. This liquid isn't see-through and keeps its color without any separation due, yet it does tend to form bubbles at the top of the liquid.*



## Cabbage Dye

*Sample*



*A very royal blue thin liquid in a glass jar. This jar is a common mason jar and holds approximately 8 ounces of dye. This liquid is slightly see-through and keeps its color without any separation due to the dye being made from purple cabbage.*



## Beet Dye

*Sample*



*A dark reddish maroon liquid in a glass jar. This jar is a common mason jar and holds approximately 8 ounces of dye. This liquid is slightly see-through and keeps its color without any separation due to the dye being made from red beets.*





## Glove Tie

*Sample*

The object is a single disposable glove. The glove was ripped by each finger and tied together by the fingers. The idea is to use the sample as a material to hold things together.





## Old Phone Charger Rope

*Sample*

The Building rope is created out of 2 iPhone chargers that stopped working. The iPhone charger edges were cut, and each charger was cut into 4 pieces. The cloth around the charger was stripped away and used to tie the rubber edges together. The end is then braided to create a strong foundation for a building rope. The rope is sturdy and could be used as a foundation for something else.





Cloth Yarn  
*Sample*

The Single use yellow cloths are made from really thin cotton making it super easy to break. This piece is what happens when you cut up the single use cloth and make it into a yarn. In this picture the yarn has been crocheted into a round pattern.



## Plastic Yarn

*Sample*



The picture is made up of white plastic bags from Good Will. The plastic bag is cut up into pieces that are tied together and crocheted to make a net-like pattern from the plastic bag.



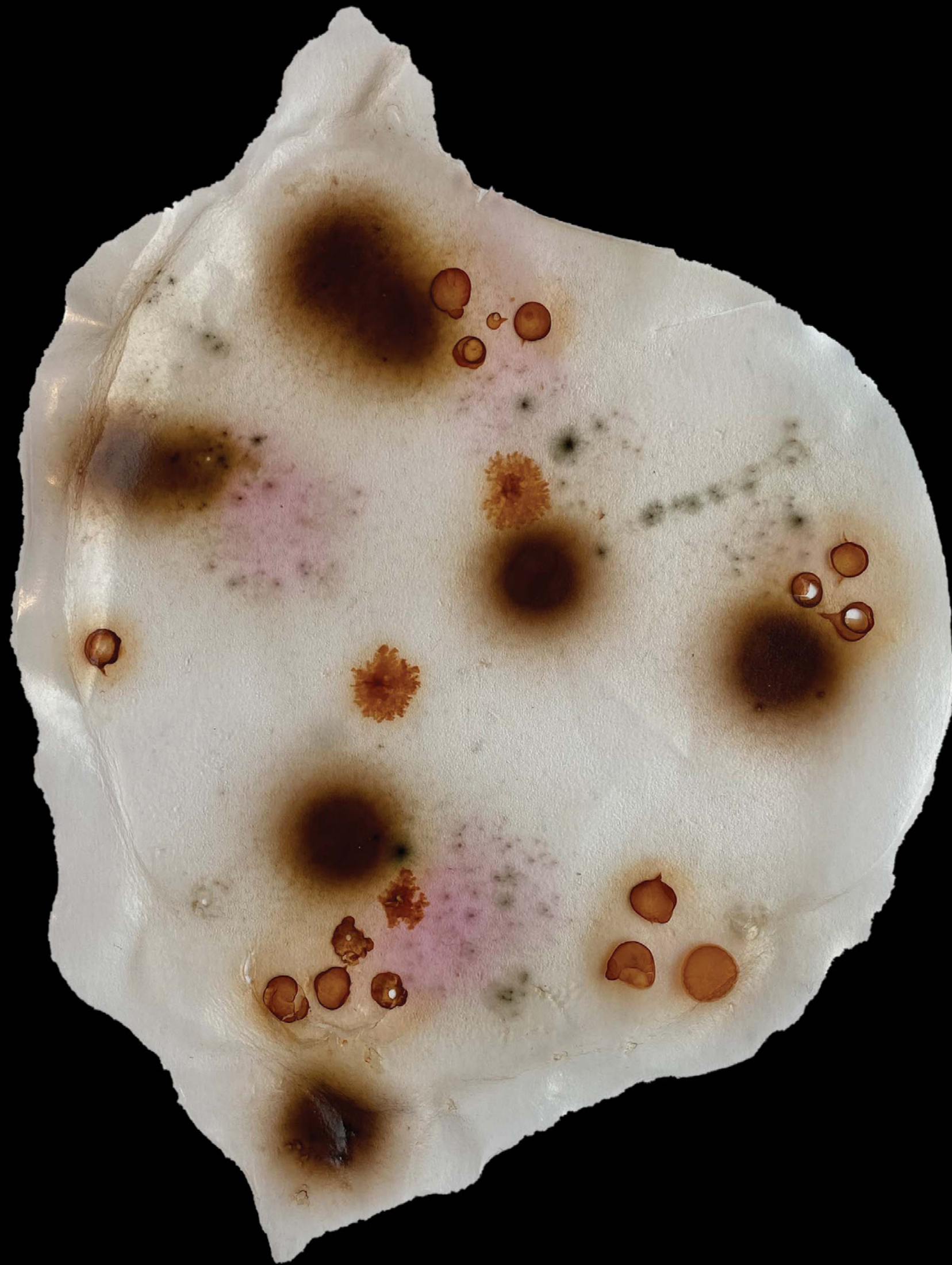
## Jean Thread Bio Plastic

*Sample*



The picture is of a bioplastic made up of jean threads and natural food coloring. The natural food coloring had grown mold, but it created a dark blue effect prior to creating the mold.





## Avocado, Pokeberry & Hazelnut Composite Sample

I made this biocomposite by pouring bioplastic liquid into a thin, flat baking tray and then used a pipette to drop avocado dye, pokeberry ink and hazelnut dye onto the flat, wet mixture. I waited two whole days for the composite to dry then peeled it off the baking tray

*Flat, irregular shaped layer of plastic with six large, dark brown dots of hazelnut dye, clusters of small light brown dots of avocado dye and three, small, faded fuschia areas. Also, small dots of green mold dispersed throughout the composite.*



Avocado Pigment Bioplastic  
*Sample*





Pokeberry Pigment Bioplastic  
*Sample*





Bioplastic Leaf I  
*Sample*



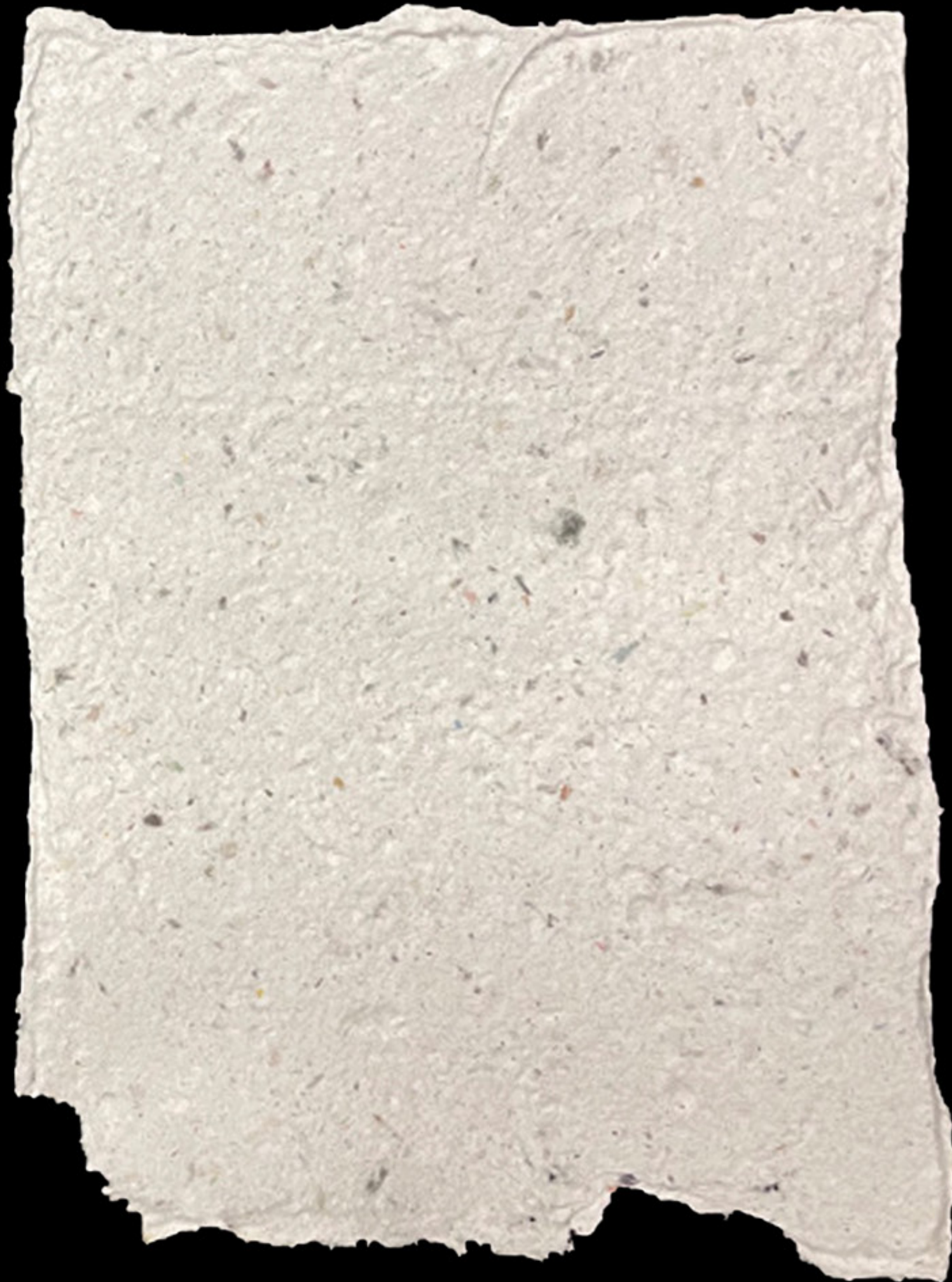






## Recycled Paper

*Sample*



I was particularly inspired by Callan Prakral's workshop and the recycling of paper. I think the product and the process of its creation both have the potential to be instructive in the development of sustainable design/materials.



## Ice

*Sample*



I chose this as a sample because I think ice is really beautiful and I don't think its full potential as a perspective material is realized. I think it has the potential to flip the idea of single-use products on their heads as an art piece. Because the material will melt in open air, it bears many similarities to the single-use products that litter our lives.





## Agar Bioplastic Composite Sample

Using the cupcake container specimen, various composite materials were tested with the agar bioplastic. The added materials are clove, string, red onion, coffee filters, turmeric, poke berry dye, and avocado skin dye. While these specimens were initially compartmentalized, the various materials mixed in the mold. Since some of the composite materials were organic, the sample developed mold after a few days.

*A composite agar bioplastic with various additives to change structure and color. The sample was not successfully removed from the mold, so it is torn in multiple parts. The sample is colored by a gradient of yellow, pink, and brown, with various elements suspended in the sample.*



## Agar Bioplastic

### *Sample*



This specimen was created to test the agar bioplastic's ability to mold to and maintain a form. Two days after the bioplastic was made and put into the mold, I removed the sample from the cap. The consistency of the sample was jello-like, and was moist to the touch. The sample also held the form quite well, even with the intricate detail of the bottle cap. After a week, the mass of the sample had decreased and it resembled a small coin.

*An agar bioplastic form from a bottle cap mold. The visual of the bioplastic is similar to that of clear jello. The sample is slightly reflective and sits upon a black background.*



## Composite Paper

### *Sample*



This paper was created with shredded newspaper, water, and fabric scraps. In the paper making process, the paper pulp will bind to materials before drying. To change the structural quality of the paper, small fabric scraps were added to the sample.

*A greyish paper interspersed with specs of yellow, white and black. Since the paper is composed of shredded newspaper, there are fragments of words throughout the sample as well.*



## Plastic Cone

### *Sample*



This sample was formed by layering and heating plastic to create a sheet of plastic that had an increased strength. This sheet was then molded into a cone form and connected by applying heat. Like the previous sample, a sheet of any size and shape can be created, and a given three dimensional form comes from a two dimensional cut out. This allows us to create any given form with this method, with the only limitation being the inherent weakness of the material.

*A plastic cone laying on its side. There is green lettering zig-zagging across the form.*



## Cigarette Butt

*Specimen*



After every smoke, this piece of plastic is usually thrown outside in public areas or places it should not be thrown out. We find them commonly around everywhere. The waste from every single cigarette after one is done smoking. The color of the butt varies from different cigarette companies. Accompanied by the company logo or name on the side.

*A tube-shaped small non-recyclable plastic photographed on a black surface.*





Tin Can  
*Specimen*

All or most beverages and drinks are distributed in tin cans. I found myself using tin cans a lot yet hardly putting them in the recycling bin. This material is recyclable.

*Tin can be made out of aluminum, tin-coated steel. With blue, yellow, and white text on the side. Photographed on a black surface on its side.*





## Banana Peel

*Specimen*

If prepared correctly banana peels are edible. Banana peels are biodegradable, however, the number of uses is a lot. Many utilize banana peels for beauty, health, compost, etc.

*A ripe banana peel photographed on a black surface.*





## Coffee Grounds

*Specimen*

After brewing fresh coffee many do not know the uses of coffee grounds and usually throw them away. Coffee grounds can be used for neutralizing odors, like compost and fertilizers, and beauty.

*Dark coffee ground on coffee filter sheet photographed on a black surface.*



## Pencil Shaving

*Specimen*



A biodegradable piece of waste product from sharpening pencils. Can also be used for compost. Because most pencil shavings are made of cedarwood, they can be used as a pest deterrent.

*A single pencil shaving photographed on a black surface.*





## Milk Bottle

*Specimen*

A square 64 oz bottle of plastic with a red plastic bottle cap. All milk packages come in either cartons, plastic bottles, or glass bottles which all three are highly recyclable.

*Plastic milk bottle on its side  
photographed on a black surface.*





Goldfish Box  
*Specimen*

A paper carton rectangle box used for containing goldfish. With bright orange coloring on each side. The box is recyclable.

*12x6 paper carton box on its side photographed on a black surface.*



## Sanitizer Wipes

*Specimen*



Wet wipes disinfecting wipes. These wipes are disposable cleaning wipes with germ-killing solutions on them. They come in small plastic packages with the company name and logo on the front.

*Plastic package and disinfecting wipes opened, placed, and photographed on a black surface.*





## Mandarin Peels

*Specimen*

The same as banana peels, orange or mandarin peels are good for compost and biodegradable. The peel contains a super-flavonoid, or antioxidant, called tangeretin and is good for health and beauty when consumed correctly.

*One mandarin peel photographed on a black surface.*





Toothpick  
*Specimen*

They come in many different shapes and sizes. However, the specimen above is more commonly used and are thrown away. They are light-colored plastic toothpicks that are packaged inside also a plastic bag.

*One single plastic toothpick  
photographed on a black surface.*



## Banana Peel

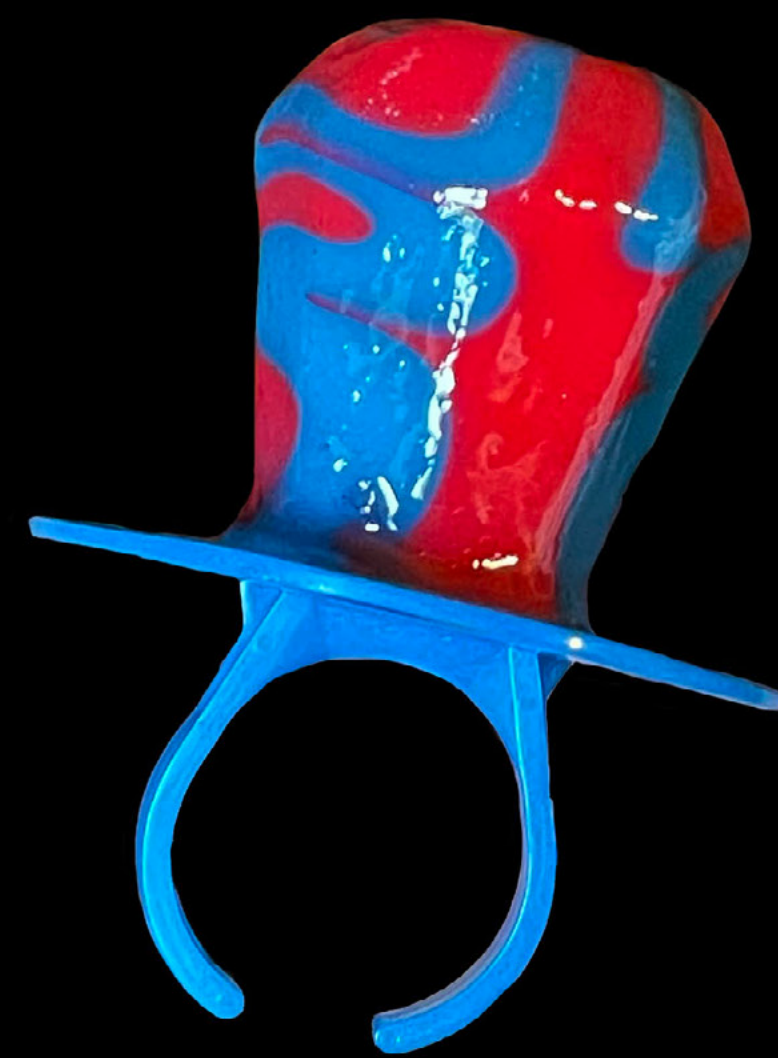
*Specimen*



This is just a banana peel I saved after lunch one day—the dining hall at Kenyon doesn't ever have any berries (which is so upsetting to me, an avid fruit eater), so I go through bananas pretty rapidly.

*A banana peel is laid out horizontally. The bottom of the banana is at the right side of the screen. It was peeled in three sections; two are peel-side up, and the other section is curved underneath the top peel with the fleshy part facing upwards. There are some brown spots on the banana peel.*





## Ring Pop

*Specimen*

Over family weekend, my mom brought me a bunch of candy. I used to love ring pops as a kid, but after sucking on this one for the better part of a half hour I got really bored with it. It was about two inches in height, if not less.

*A blue plastic ring is attached to the underside of a flat surface of the same color. On top of the flat surface is a diamond shaped lollipop. It is the same color as the artificial blue of the plastic, with bright red swirls mixed in with the blue. Its flavor is “berry blast”.*





## Expired EpiPen Specimen

This EpiPen expired last month; before throwing them away, you need to inject the needle into something for safety reasons. I stabbed an orange. They last approximately one year past the date of manufacture, and come in packs of two.

*An EpiPen is arranged vertically on the screen, to the left of its clear plastic case. There's a small blue safety covering on its top, above a bright yellow label with a 3 step set of instructions for its use. Below the instructions, at the bottom of the device, is text that reads "NEEDLE END" with an arrow pointing downwards, below which is a protruding orange box with tapered edges that holds the already-used needle. The clear plastic case has a small top that clicks shut and is the same shade of yellow as the instructional label, and has small indentations in its sides.*



## Hearing Aid Dome

*Specimen*



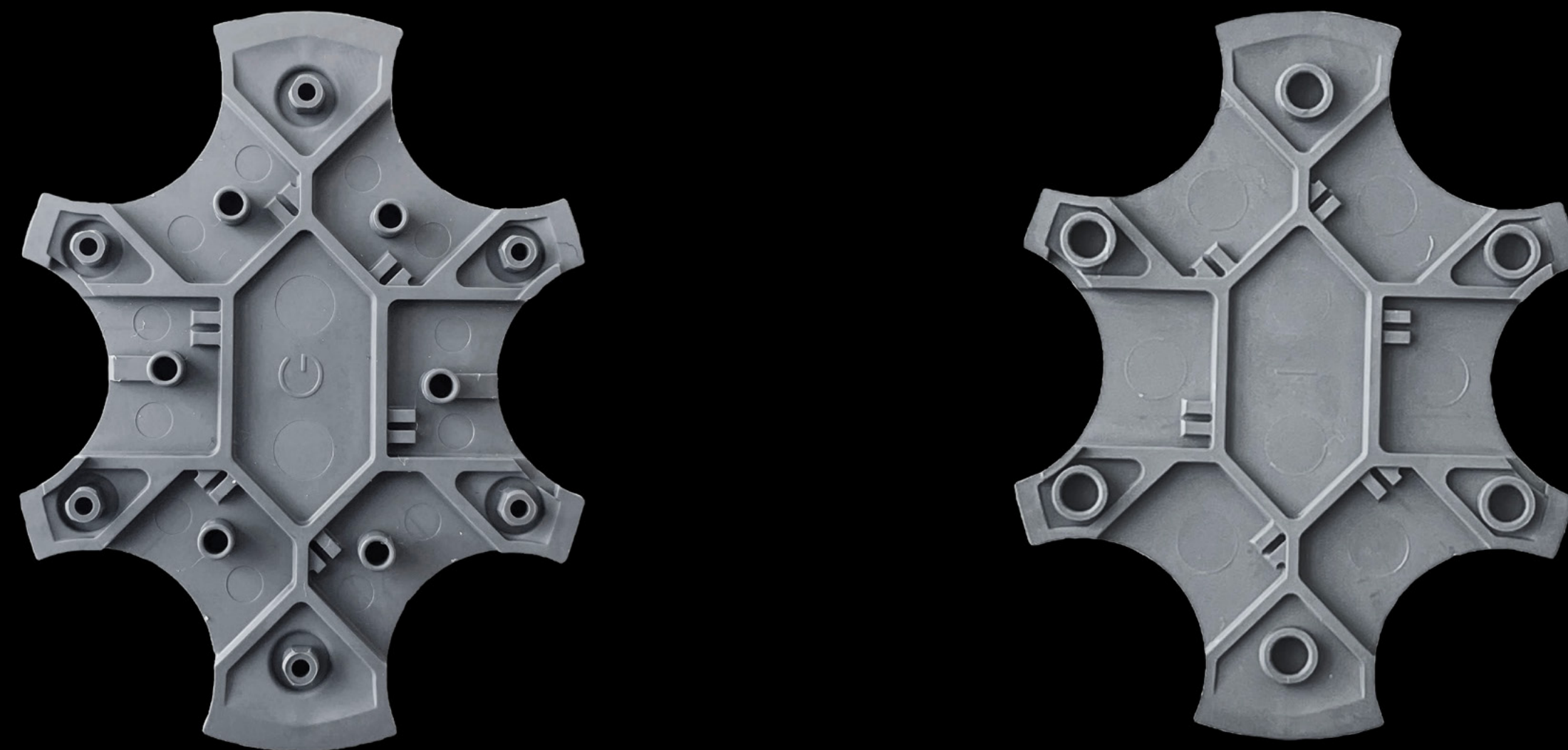
This is one of my replaceable hearing aid parts; its purposes are to collect ear wax, help the hearing aid sit comfortably in the ear, and also (I'm 90% sure) to help the noise from the hearing aid sound right. It's small enough to sit comfortably on your fingertip, and I go through two (one for each ear) about every 2-3 weeks.

*A clear, waxy, dome shaped object that fastens to the top of a hearing aid. There are six symmetrically arranged, egg-shaped holes on the side of the dome, and a small semicircle protruding from the tip of it. It's hollow, save for a small cylinder that hangs from the top of the dome to about halfway down its height to help attach it to the hearing aid.*



## Hearing Aid Wax Trap Case

*Specimen*



This is the inside of a case for another replaceable hearing aid part--the wax trap. When earwax gets into the top of the hearing aid and blocks the speaker, I take a little part from the case and replace the trap. I go through about two wax traps every 2 or so weeks, so go through one of these cases once every 6-8 weeks.

*(Left)*

*An oval-shaped half section of a plastic grey case for a replaceable hearing aid part. It has 3 circular holes cut out of each side in a symmetrical and evenly spaced out pattern, and there's a stretched out hexagonal shape that has raised edges in its center. Placed evenly on the border between each circular cutout is a circular cavity; there are 6 more holes between those cavities.*

*(Right)*

*The other half section of the case; a mirror image but with only six total cavities (none towards the center of the casing). When placed under the other piece, the two casings click into place to hold the wax traps.*





## Plastic Package Padding *Specimen*

I'm pretty sure this came in one of my roommate's packages. It was sitting in our dorm amongst a pile of cardboard boxes until I cleaned our room a few weeks ago. I wasn't quite sure what the purpose of having tearable sections of plastic padding was.

*Clear plastic packaging padding split into three rectangular sections that are stacked on top of each other. On the bottom rectangle is red text that, while hard to make out, presumably says the name, website, information, and phone number of the company that manufactured it.*





## Tic Tac Case

*Specimen*

Ever since having to wear a mask every day, I've been carrying around breath mints. I don't like gum, and Altoids are technically not vegetarian, so I usually stick to Tic Tacs.

*An empty, clear Tic Tac case. The Tic Tac logo is at the top of the case, and green in color. Under the logo is the text "freshmints" with a few mint leaves and water droplets superimposed behind it.*





## Melatonin Bottle

*Specimen*

I've been taking Melatonin nearly every night since last April after I started having trouble falling asleep. There are 60 pills in each bottle, so I go through one roughly every two months. I think the bottles are really pretty.

A royal blue colored Melatonin bottle labeled *on the side* as “LIFE EXTENSION”, and then, underneath that, “Melatonin / 1mg”, followed by “Promotes Quality Sleep”. The bottle is wide and cylindrical in shape. It narrows at the top, beneath a cap that flicks open. There is a bit of plastic wrap still stuck beneath the cap at the top of the bottle from the seal it had when I bought it.



## Wallet

*Specimen*



I used this wallet for about four years. It's made of vegan leather, which I think is just a fancy way of saying plastic, and I only stopped using it because there are also holes on the inside and I was worried money would fall out of it.

*A rectangular purple-grey wallet with sewn edges. It is snapped shut via a small, circular magnet in its center. There are holes and tears throughout the wallet's surface, and wrinkles forming outwards around where the tears formed.*



## Pencil Shavings

*Specimen*



I actually hadn't thought about pencil shavings as trash until this project--I think it's something so mundane and forgotten about that it just gets tossed without a second thought. There's definitely another use for them.

*A collection of pencil shavings are layered and scattered at random, ranging in size from small shavings to ones that had wrapped around an entire pencil. Half of them are colored bright yellow at the bottom, and were from a traditional #2 pencils, while half of them are green at the bottom, and were from drawing pencils.*





## Sponge *Specimen*

A sponge which I purchased before my freshman year to keep in my dorm to wash dishes. Synthetic sponges can be made with a variety of materials, including polyester, polyurethane, or vegetal cellulose. The sponge has a squishy side and a harder opposite side which is scratchy.

*There's a uniformly blue sponge with many random pores of various sizes. The top and bottom of the sponge have straight lines, while the sides have mirrored curves which move from right to left.*





## Yarn

*Specimen*

This yarn was given to me when I attended the Fiber Arts Club at Kenyon. Yarn is made of many different fibers, which include animal and plant fibers. No information was given on the fiber composition of this yarn, but it has a slightly scratchy texture and is strong.

*There's a dark orange clump of yarn with many twists and turns. There's one thick wood needle embedded in the clump. The clump's orientation creates many different shades of orange.*





## Ricola Wrapper

*Specimen*

Purchased from the Bookstore in Gambier when I was sick. The wrapper is made of a thin plastic and has a wax-like coating with a slick texture. It was purchased in a large pack of Ricolas including about thirty cough drops.

*There's a horizontally oriented Ricola wrapper. It's quite crumpled throughout the wrapper. There are five uneven columns on the wrapper. The furthest left and right are nearly identical, as both have a yellow background with three illustrations of plants. The next farthest left and right columns are solid white, and the center column has a yellow background with repeated Ricola branding which appears four times in the column.*





## Milk Duds Box

*Specimen*

A small case which contained only a handful of milk duds. The cardboard is thin and has some sort of wax-like coating. This was taken from a bowl of free candies in the hallway of Horvitz on Halloween.

*A small, empty, yellow milk duds box which is open and upside down. On the rectangle front of the box is a diagonal Milk Duds branding in brown with a white outline and small lettering under it. There is also the same branding on the cardboard opening, but it's smaller.*





## Keychain

*Specimen*

A heavily used keychain which broke so I could no longer use it. Made of a hard and thick plastic. I've had the keychain for so long that I can't place where I first accumulated it.

*A portrait oriented oval keychain that is blue. There are two circular holes in it, both in the center of the keychain, one which is larger and towards the top of the keychain, and a smaller one towards the bottom. There's a line going down the center of the keychain. In between the two circles is an indented rectangle. The plastic shows multiple slashes from use.*





Pack of Gum  
*Specimen*

The pack of gum is made of a thin cardboard. It was purchased from the Bookstore in Gambier. It was in my back pocket for many days and shows many rips and crinkles from it.

*An empty rectangular pack of gum containing bright and fresh shades of blue and whites. Heavily used and displays signs of use such as crinkles and rips. The branding takes up most of the pack and is in white with a dark blue outline that makes it pop out. Behind it is a few bright blue leafs which resemble the flavor of the pack- peppermint.*





Pack of ChapStick  
*Specimen*

A strong cardboard backing, with a hard plastic glued to its front. The plastic holds three sticks of chapstick, which contained a variety of flavors. The pack was purchased from Walmart.

*A portrait oriented rectangular cardboard with smoothed edges takes up most of the photo. Centered towards the bottom is an empty plastic compartment with three bumps that allow three sticks of chapstick to fit in it. The cardboard has a cut out on the top of it so that it can be stored in Walmart. The cardboard is composed of three columns. The two on the left and right contain calming visuals of flowers. The center column has a teal color and Chapstick branding with a black silhouette of lips.*





## Trail Mix Bag

*Specimen*

Planters Nuts and Chocolate mix which was purchased from the Bookstore in Gambier. Made of slightly transparent, durable, and thin plastic. It also has the ability to be resealed because of an extra plastic addition to the inside of trail mix.

*The trail mix is empty and slightly transparent, and sits upright with its opening being slightly larger than its base. Primarily a blue color, with “PLANTERS” written in an arc in yellow. Below it is a band of solid brown with centralized white lettering that reads “NUTS & CHOCOLATE —TRAIL MIX—”. To the left is an image of a humanized peanut wearing fancy clothes. Below the lettering is a transparent window in which you can see the other side of the blue bag.*





TruMoo  
Specimen

A plastic drink bottle wrapped in plastic. The plastic that holds the drink is light yet firm, and the wrapper is very thin and stretchy. This was purchased from the Bookstore in Gambier.

*A TruMoo plastic bottle of chocolate whole milk sits upright with its cap slightly twisted off. The bottle is white, but is mostly covered by a plastic wrapper. The wrapper has a red band on the top of it. The rest of the wrapper is sky blue and white, and has large TruMoo branding, as well as a dramatic shot of a cup with chocolate milk being poured into it.*



Ramen Cardboard  
Specimen



Another one of my preferred snacks is ramen noodles. This was purchased from Walmart. The cardboard is folded to create an outer cardboard casing for the cup that contains the ramen noodles. The cardboard is thin.

The cardboard ramen case has a thin rectangular form. It's divided into three sections from top to bottom: The first two sections contain repeating imagery containing ramen branding that reads "Maruchan", "Instant Lunch", and "Hot & Spicy Chicken Flavor", and is composed of red and yellow colors, and has a photo of ramen noodles. The final section contains nutritional information and barcodes in black and white readable fonts.



Peanut M&M's Wrapper  
*Specimen*



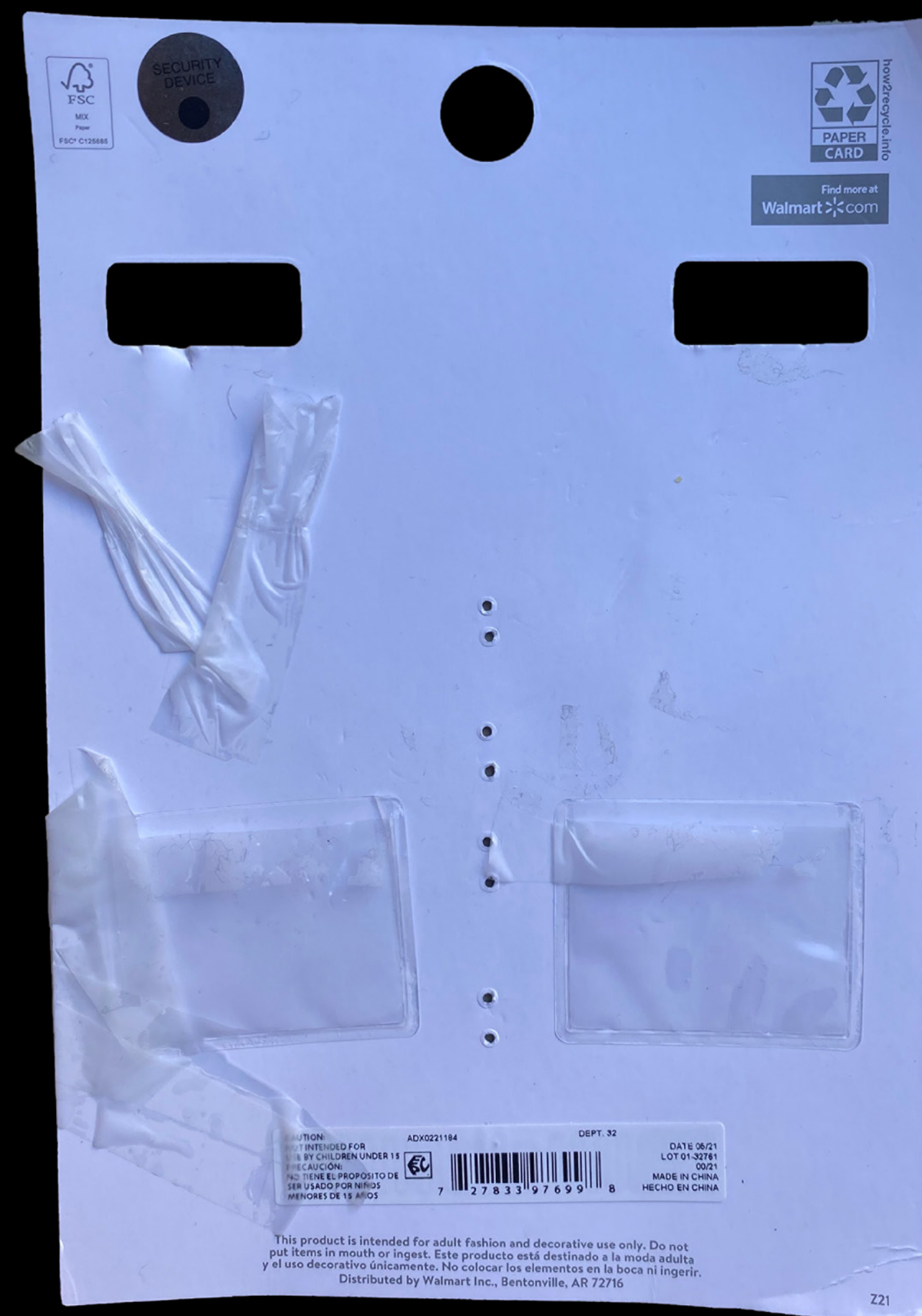
The M&M's wrapper is made of a reinforced plastic resin. This plastic has a shiny appearance and a waxy texture. These are one of my preferred snacks, and were purchased at the Bookstore in Gambier.

*The Peanut M&M's wrapper is composed of yellow and red colors, along with large branding that reads "m&m's" and "SHARE SIZE". The wrapper also has an illustration of an m&m with human features waving to the viewer. The wrapper is torn and crumpled, and the light gives it a glossy effect.*



## Jewelry Holder

### Specimen



Primarily cardboard, with various stickers and plastic compartments. The cardboard is relatively thin, and the plastic is quite strong and stretchy. This was purchased from Walmart and held a variety of fake gold chains which were used for a halloween costume. The small punctures in the cardboard originally had small ties weaved through them to fasten the chains into place.

*A portrait oriented white rectangle takes up the majority of the photo. This cardboard rectangle has numerous cut outs, including two small symmetrical rectangles and one centered circle, as well as a line of punctures. Fastened to the cardboard are numerous pieces of plastic arranged in a chaotic manner, two of which have openings that were used to hold jewelry. There are stickers attached to the bottom and the top of the cardboard, as well as some printed information containing branding and recycling information*





## Coffee Stirrer

### *Specimen*

These sticks are used to mix milk, cream, sugar or syrup into one's coffee. Sometimes they are made of plastic, but these are made of wood, most likely birch. They are single use and could very easily be replaced by using a reusable spoon or straw to mix instead.

*Two long wooden coffee stirrer sticks sit upon a black background. One stick lays on its side, showing the thinness and brittleness of the material. The lower halves of the sticks have been darkened from their original lighter color by coffee stains.*





## Corn Husk

*Specimen*

The husk of a corn plant is the papery outer layer of the cob, protecting the vegetable as it grows. Husks are usually thrown out or composted (or sometimes cooked) but they can be used for other things. The fibres from the husks could be potentially woven into a textile. Corn silk, the small threads between the cob and husk, can have similar uses.

*A dried, yellow corn husk lies on a black background. It is crumpled and dirty, as if it has been drying out right on the cob, in a field, under the sun. The husk is vaguely seed shaped, just like its original source.*





## Red Cabbage

### *Specimen*

Red cabbage is most regularly a food that is pickled, boiled or used raw in salads. However, it can also be used to create beautiful natural dyes, in various colors. From just this purplish exterior, one can create purples, greens and blues.

*A small pile of chopped red cabbage sits on a black surface. Despite its name, the cabbage appears more deep purple than red and the long, scraggly pieces create a fabric like pattern on the dark background.*





## Flour

*Specimen*

Flour is a powder made from grinding up grains, nuts, and other seed-like things. This flour is made out of wheat grain and is most commonly used for baking and cooking. Flour can be used as a thickening agent in most liquids, making it a great ingredient with which to make sustainable glue.

*A small pile of white flour sits on a black background. The powder has been sculpted to create a small mountain, one side of the peak appearing smooth and straight and the other rough and grainy.*





## Banana Peel

### *Specimen*

The peel of the banana protects the fruit flesh while it grows. This peel is usually thrown out or can be composted, but it has some other interesting potential uses. Banana peels have recently been used to create sustainable leather and the fiber within the peel has been used to make other construction materials. Companies in Switzerland are currently still experimenting with the potential of this material.

*Two banana peels sit on a black surface. One image shows the smooth outside of the peel, spotted with brown, while the other shows the rough inside, lined with a white material reminiscent of the fruit's flesh that it once held.*





## Toilet Paper Roll

### *Specimen*

A large portion of the world uses toilet paper every day. This paper must be disposed of but the cardboard on which the toilet paper is stored has potential further use. It could be recycled into new paper or used to store other objects.

*A brown, cardboard cylinder sits on a background. The cylinder sits upright and is tilted slightly towards the viewer so one can see that it is hollow. A paper seam runs diagonally down the outside of the rounded form.*





Black Tea (from tea bag)  
*Specimen*

Black tea is a collection of leaves from a specific type of tree. It has a richer color than other types of tea and can be used to dye fabric and even hair. Black tea can be a natural replacement for harsh chemical dyes, though it is not as permanent.

*A pile of small, brown particles lies on a black background. Looking closer, there are many different colors represented in the pieces; reds, yellows, oranges and greens.*





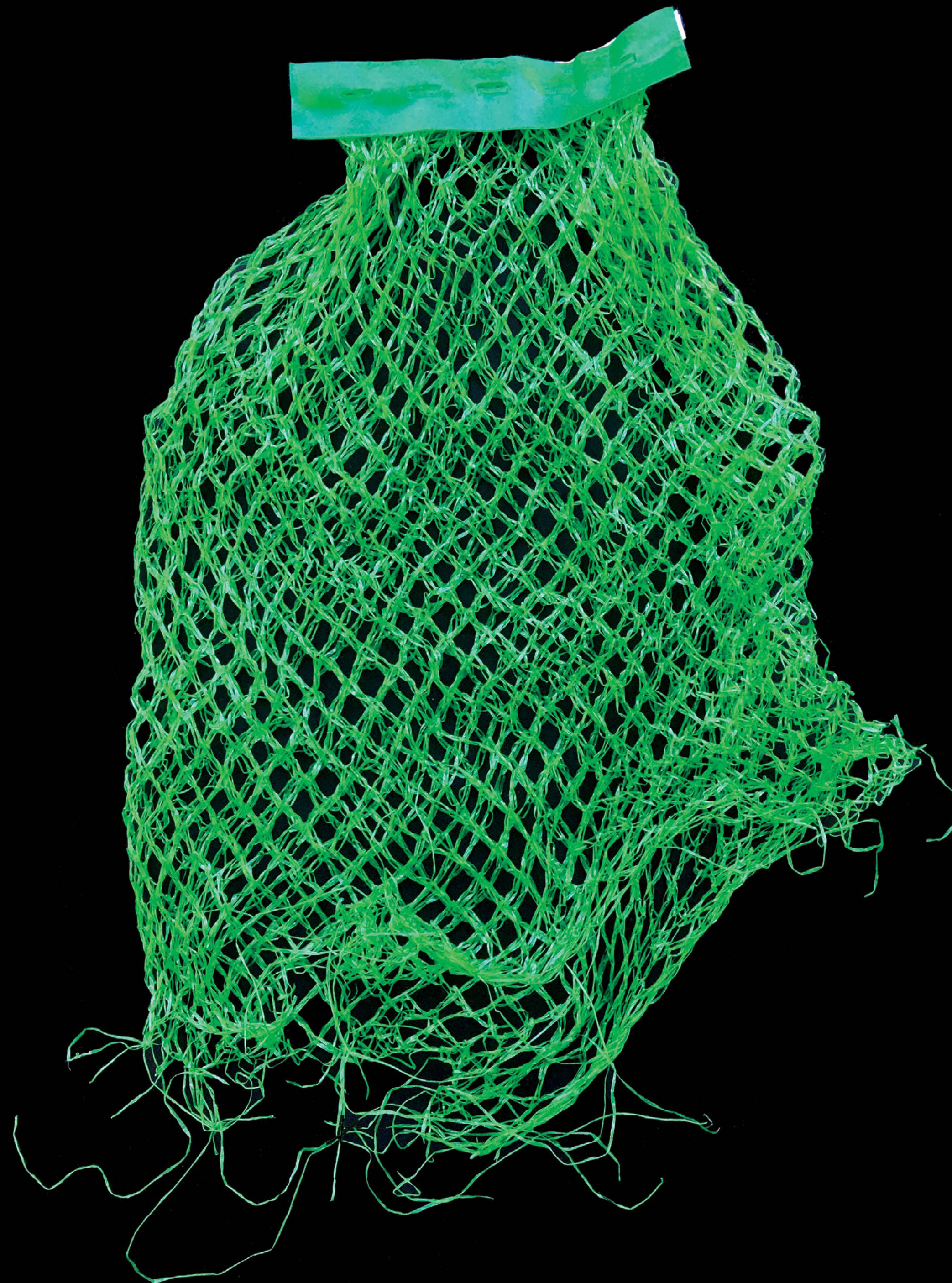
## Sugar

*Specimen*

Granulated sugar is a monosaccharide extracted from sugarcane and formed into small crystals to be used as “table sugar” in most households for tea, coffee and baking. When melted, sugar becomes very sticky, making it an ideal ingredient for sustainable glue.

*A pile of small white crystals sits on a black background. The pile is very rounded with a few rogue crystals spilling to the sides.*





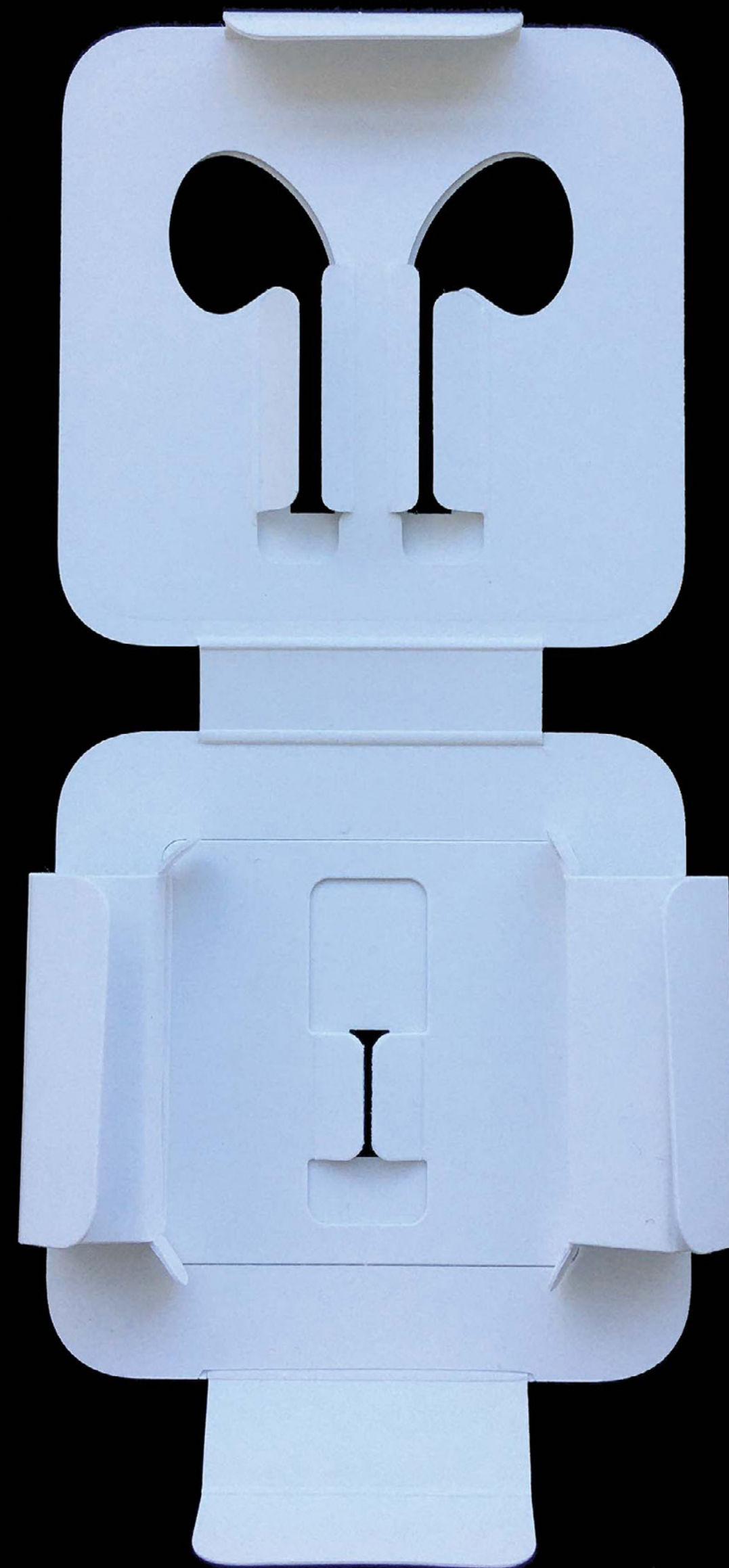
## Plastic Avocado Bag

*Specimen*

This bag is made from very small, thin plastic fibers. As it is impossible to take the fruit out of the bag without breaking it, there is not much potential for further use. The best use for this plastic would probably be to compact it with other materials into a new plastic form.

*A bright green, woven plastic bag sits on a black background. The bottom of the bag has been ripped open, causing some threads to come loose and break the weave.*





## Earbud Holder

*Specimen*

This object is made of a thick cardstock-like paper with a smooth side that could perhaps also consist of a plastic. It was originally used to store Apple earbuds in their packaging. It would perhaps be used to make new paper or to hold other long, string-like objects for storage.

*A complex, white, paper form sits on a white background. It consists mainly of two squares attached by a thinner middle section. The squares have a variety of shapes cut out of them, two of these shapes looks like they would fit the heads of a pair of earbuds perfectly.*





## Bubble Wrap

*Specimen*

Bubble wrap is a material made of plastic and small circles of trapped air. It is used to protect objects when shipping them through the mail. This material, if used in large quantities, could potentially be repurposed into mattresses and other furniture.

*A rectangular piece of plastic sits on a black background. The plastic consists of a regular pattern of small bubbles, some popped, some still filled with air. The edges of the plastic sheet are rough and uneven, like the piece had been ripped from a larger sheet.*





## Birth Control Packet

### Specimen

This is an empty birth control packet. It is made up of two distinct parts, the first being the blue casing and the second being where the actual pills are held. They are both mainly composed of plastic but there is a somewhat aluminum backing to the pill case. The plastics have different properties, the blue is more bendy and textured while the pill casing is stiffer and smoother.

*Two objects, one is within the other. The inside object is lined with four rows of clear circles surrounded by a light blue box. Outside that box is a ring of pinkish labels. The outside object is a blue case with a textured shine.*





## Blueberry Container

*Specimen*

This is a plastic container that holds blueberries. It is made of a thin but sturdy plastic that has holes so that water can drain through after the berries are washed.

*A clear plastic container with rectangular holes and uniform distances around the container. The label that reads "blueberries" is in a triangle shape in the top right corner.*





## Capri Sun Pouch *Specimen*

This is a Capri Sun pouch with a plastic straw inserted in it. The pouch itself is made of an aluminum plastic composite with a clear plastic bottom. The straw is made of plastic and there is also a straw wrapper stuck to the back of the pouch with some adhesive that is quite stable.

*A brightly colored, rectangular pouch that reads Capri Sun across the top with strawberries and kiwis in the middle. There is a ring of silver around the rectangle and a yellow straw coming out of the pouch where the dot of the "i" in Capri Sun should be.*







## Crayon Wrapper

*Specimen*



This is a Crayon wrapper that was peeled off a crayon so that the rest of it could be used. It seems like somewhat of a useless piece of paper because it has to be peeled so that the actual Crayon could be used. The Crayon itself also doesn't get on your hands without the wrapper so it seems like its only real use is that it says the name of the color on it.

*A pink piece of rolled paper with black lines that circle the top and black lettering in the center of the paper.*



## Pill Case

*Specimen*



This is the pill casing for a sinus pill that one of my friends took. It's made up of plastic and an aluminum plastic backing. Like the birth control packet, you have to pop the pill out of the aluminium backing by cracking the plastic in the front. These are used very frequently on the Kenyon campus as mystery illnesses continue to circulate.

*An object with a clear center with two ridges and a silver ring under the outside of the two ridges of the object.*





Plastic Air Pillow Film  
*Specimen*

This is used in packaging as an alternative to bubble wrap or packing peanuts to keep fragile items from breaking or other objects from moving around in the box too much. I think I got it in an Amazon package of shampoo and conditioner. It is composed of a very thin and flexible plastic that is filled with air and thus resembles a “pillow”.

*Four identical objects fused together at their edges. Clear, pillow shaped bundles of air with green lettering diagonally along the objects.*





## Shampoo Bottle

*Specimen*

This is a mini shampoo bottle that I brought to shower in the Lowry Center so I didn't have to carry a full bottle of shampoo up and down the KAC hill. It is more plastic than actual shampoo. It is made from a pretty durable plastic that is tinted green and a green plastic cap.

*A green tinted, clear bottle with orange and white lettering on the centered label. The object also has a darker green lip that sits on the top of the bottle.*



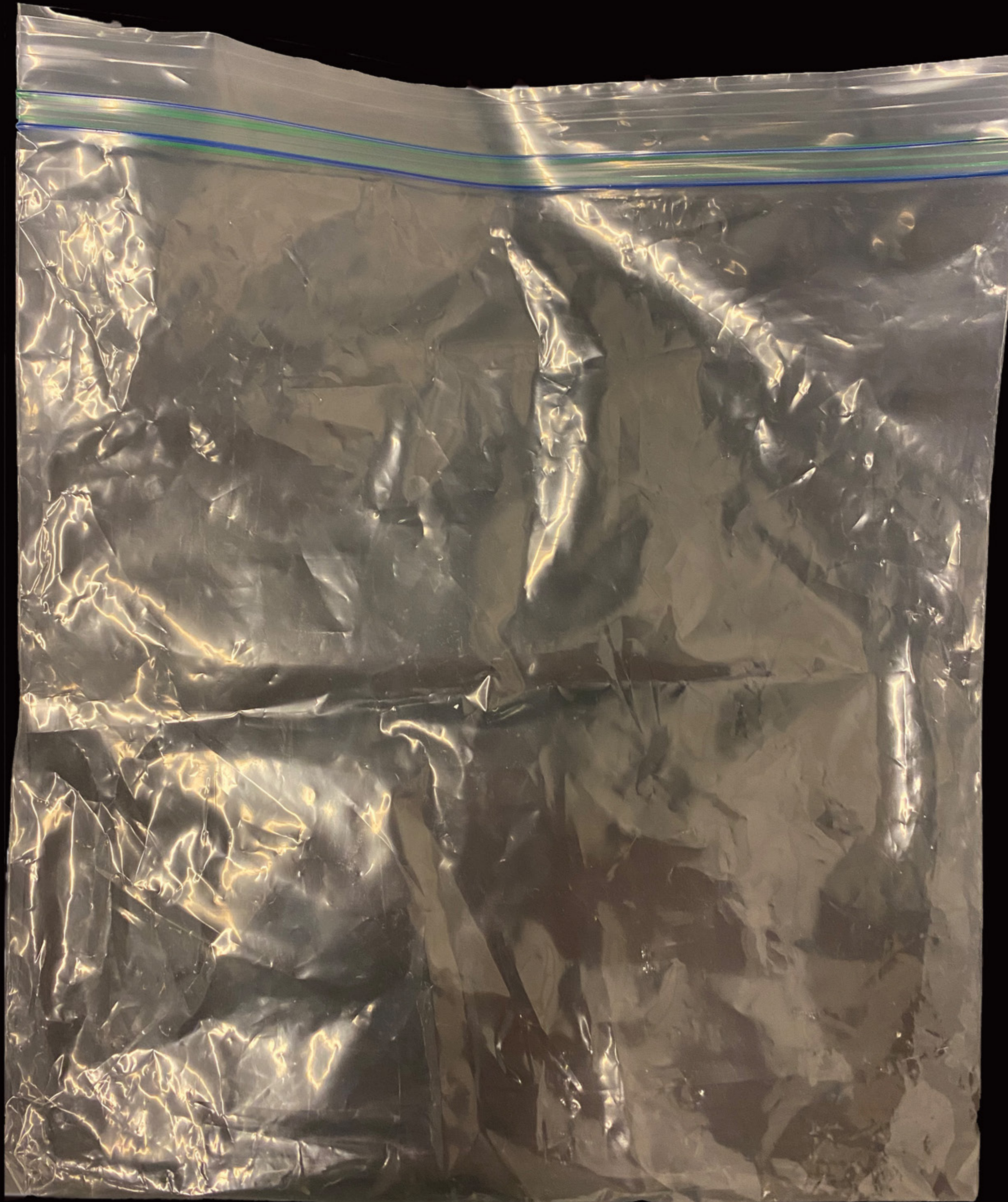


Sprite Bottle  
*Specimen*

This is pretty self explanatory, a sprite bottle from the bookstore. It is made of PET plastic and has a plastic label that is stuck onto the bottle with an adhesive.

*A green tinted, clear bottle with a green label that wraps the circumference of the bottle that reads "Sprite". There is a darker green top as well.*





Zip Lock Bag  
*Specimen*

This is a large plastic Zip Lock bag that was used in my dorm to hold various things. Since we always forget to buy them, my roommates and I reuse the same bag for many things but this particle bag was starting to get tiny holes in it so it was time to retire it.

*A clear wrinkled object that has a green and blue line an inch from the top of the object that spans both the front and back.*





## Avocado Seed and Skin *Specimen*

Avocados originated in Central Mexico and have been consumed in Mexico and other nearby tropical regions for thousands of years. Today they have a global reach, but the seed and skin of the fruit are usually seen as waste despite their many uses. The seed can be ground into a fine, vitamin rich powder which can be consumed or used as a base material for bricks. Both the seed and skin can be used to make an orange-to-red dye. This avocado was purchased from a local supermarket.

*This is an image of an avocado and its pit side by side on a black background. The rounded side of the avocado skin faces the viewer.*





## Banana Peel

*Specimen*

Although edible, banana peels are almost synonymous with garbage, but they have many uses. The peel can be dried out to make a fiber which could be used as a textile or straw like material.

*This is an image of a ripe banana peel against a black background. The peel is seperated and arranged into three sections: crescent shaped right and left sides surrounding the straight back seam of the peel.*





## Bubble Wrap

*Specimen*

Bubble wrap is a common, single-use packing material made of low-density polyethylene (LDPE). It has strong insulating and shock absorbing properties because of its air pockets, and it can be reused for those purposes until the air pockets deflate. The plastic can then be melted down or repurposed in another way. This sheet of bubble wrap came from a package I received.

*This is an image of a sheet of bubble wrap on a black background. The sheet is folded into a slightly asymmetrical square.*



## Eggshell

*Specimen*



Eggshells are high in calcium carbonate, the same mineral found in limestone and sea shells. They can be ground up into a powder which can be used as a fertilizer, dietary supplement, chalk, or anywhere else calcium carbonate is used. They are extremely common and can be processed on both large (restaurants, food manufacturers) and small (individual) scales. These eggshells came from my dining hall.

*This is an image of both halves of a white eggshell on a black background. The shells are leaning on each other, the left side is sitting with the open side up, while the right side is facing with the open side down and resting on the right shell.*





## Tissue Box

*Specimen*

Cardboard is typically made of recycled paper and commonly used to make boxes. Cardboard is extremely versatile and can be recycled many times before being turned into a lighter weight paper, like tissues. I found this box at my desk at work.

*This is an image of a Kleenex brand rectangular tissue box on a black background. The plastic lining at the top of the box has been removed, and it has a print with blue and yellow flowers on it*





## Lamb's Ear

*Specimen*

Lamb's ear is a plant native to the Middle East and the Caucasus region, but commonly grown as a decorative plant in the United States. It has a wooly coating that remains soft even when the plant dries. It also has antibacterial properties and can be used as a wound dressing because of its absorbent leaves. I found this leaf at the Nature Center at the BFEC.

*This is an image of a leaf of lamb's ear on a black background. The leaf has thick white fuzz that looks almost like fur.*



Pine Straw  
*Specimen*



Pine straw is ubiquitous in pine forests and often harvested for mulch and erosion control. The needles are thin and can be used dried or fresh. The fresh needles can be boiled to make a dye. Dry straw can be used as a binding agent in cob, a sustainable building material made from clay, soil, and straw.

*This is an image of a small bunch of dried pine needles on a black background. The needles are a brassy orange color.*



## Plastic Bag

*Specimen*



This plastic bag is made of high density polyethylene. Although designed as a single-use item, it can be repurposed as yarn or melted down into different forms. I found this bag discarded on campus.

*A picture of a black plastic bag on a white background. The bag is slightly wrinkled.*





## Polyethylene Mesh

*Specimen*

This plastic tube is made from compressed polyethylene and is intended for use as a packing material. The mesh is extremely durable and stretchy, which makes it good for a variety of uses. Polyethylene is also safe to melt, which opens up additional possibilities for reuse at the individual level.

*A black mesh tube on a white background. The tube is slightly warped. The bottom is wide and stretched out while the top curves and narrows.*





## Twist Tie

*Specimen*

Twist ties are generally used in packaging to hold materials together. They are usually metal coated in paper or plastic, or a combination of the two. The metal is extremely bendy and holds its shape well.

*This is an image of a used green twist tie on a black background. The twist tie is covered with grass-green paper that has weathered to white in spots. It is bent at a soft right angle, with the inside center of the angle facing the viewer.*



Cold-Eeze Cough Drop Wrapper  
*Specimen*



I collected this specimen from a period when I had a bad cold. The product is supposed to help shorten a cold, although the taste of the cough drop is a sickly cherry flavor. The wrapper is made of a translucent and thin plastic.

*A red plastic cough drop wrapper with the text “Cold-Eeze All Natural Cherry” on it. The rectangular wrapper is partially unwrapped and flattened on one end, while the other end is still twisted closed. The plastic is crinkly, shiny, and has a geometric border on either side of the text.*



## Halls Cough Drop Wrapper

*Specimen*



Another cough drop wrapper from when I was sick. The flavor was citrus, formulated with vitamin C for immunity. It is made of a papery material with a plastic coating in the inside to keep the lozenge from sticking.

*A white, semi-opaque lozenge wrapper from the brand Halls. The plastic coated paper wrapper is flattened into a rectangle shape, although still slightly crinkly from being around the oval-shaped cough drop. The pattern on the wrapper is made up of various squares with the brand logo, a mustard colored banner with “Halls” on it, on all four sides, repeated in parallel diagonal lines. Each square has an encouraging phrase on it, like “Tough is your middle name.”*





## Nighttime Cold & Flu Medicine Specimen

This is an empty blister pack that formerly held two nighttime cold and flu pills (the required dosage). The medicine is a generic version of Nyquil, which I found at my house while I was home for my Mom's wedding. This was a common medication I took for the 3 long weeks I was sick to help me get sleep.

*A common remedy for college students trying to get a good night's sleep when sick with a cold, this discarded blister packet of "nighttime cold and flu" has been ripped open and popped from its plastic shell. The empty portion that held the pills is plastic with a foil material on the flat surface. The bottom of the pack that held the casing closed is a thick paper, with instructions and warnings on the inside and a foil lining on the outside.*



Robitussin Box  
Specimen



Another try at getting to sleep with a cold, this discarded box formerly held a bottle of Robitussin nighttime cough medicine. The medicine supposedly suppresses coughs to allow for sleep, but was unsuccessful in halting my powerful and mighty cough. I bought this remedy at the Gambier Market, which sells an assortment of medications towards the front of the store.

Another common remedy for a hacking cough, Robitussin has been used by many an ailing Kenyon student. The rectangular, thin cardboard packaging has a shiny exterior and a matte exterior. It has been flattened sp the ingredients are visible, along with the brand name and front details, which have a red and green color scheme.



Gypsy Cold Care Tea  
Specimen



This empty tea bag package was purchased at the Gambier market along with the Robitussin in a “seasonal care” assortment of teas. By the brand “Traditional Medicinals,” the flavor “Gypsy Cold Care” is flavored with Elderflower Spice as an herbal supplement to aid in soothing a sore throat. The packaging is a thin paper, with a warm and homey color scheme of forest green, bright red, orange, and brown.

*Formerly holding a tea bag, this thin paper packaging is square shaped and torn at the top. On one side is the brand and flavor, “Traditional Medicinals” and “Gypsy Cold Care,” respectively. On the other side are the ingredients, instructions, and the common warnings of an herbal supplement.*





## Takeout Container

*Specimen*

Washed for easier photographing, this styrofoam takeout container came from Pierce Dining Hall. In the time of coronavirus, most sick students have takeout meals from the dining hall while quarantined and waiting for test results. Although I did not have Covid, I had many takeout meals in the few days while I was sick and quarantined in my dorm. The college used to have biodegradable takeout containers, but ran out, leaving students to use environmentally harmful styrofoam containers.

*This takeout container is made from a shiny and thin white styrofoam. The bottom has one large compartment and two smaller sections to divide up a meal and sides. The top functions as a lid, with two small latches to keep the container closed in transit.*



## Cracker Package

### *Specimen*



Furthering the journey of being sick, the package held two saltine crackers to accompany a bowl of dining hall soup. The brand is “Zesta,” which I have only seen in Pierce dining hall before. The crackers are held in a small wicker basket above the soup options of the day. The day I ate these crackers, the soup was a “Hearty Vegetable Soup” (although it mostly consisted of onions and tomatoes).

*Torn open to access the crackers inside, this “Zesta” saltine package is made of a thin, shiny and crinkly plastic. The packaging is mostly white, with red accents around the brand label.*



## Everlywell Covid Test Specimen



This is what remains of an Everlywell at-home covid test after the test has been taken and sent off to the labs. I took this test when I was very sick and worried about having Covid. The test is given out (optional, one per student each week) at Gund Commons. It is self-administered with the guidance of a video, consisting of a nose swab that is put in a tube and sent to the Everlywell labs in Alabama.

*What remains of an already administered home covid test still has many parts including two boxes, two informational cards, and the package that held the nose swab. One box is the outer encasing of the test, which has the everlywell logo, the name of the test, and red circular designs. The other box is green and held the actual nose swab and test tube. The two cards, one dark teal, the other red and white, have information about the test and its instructions.*





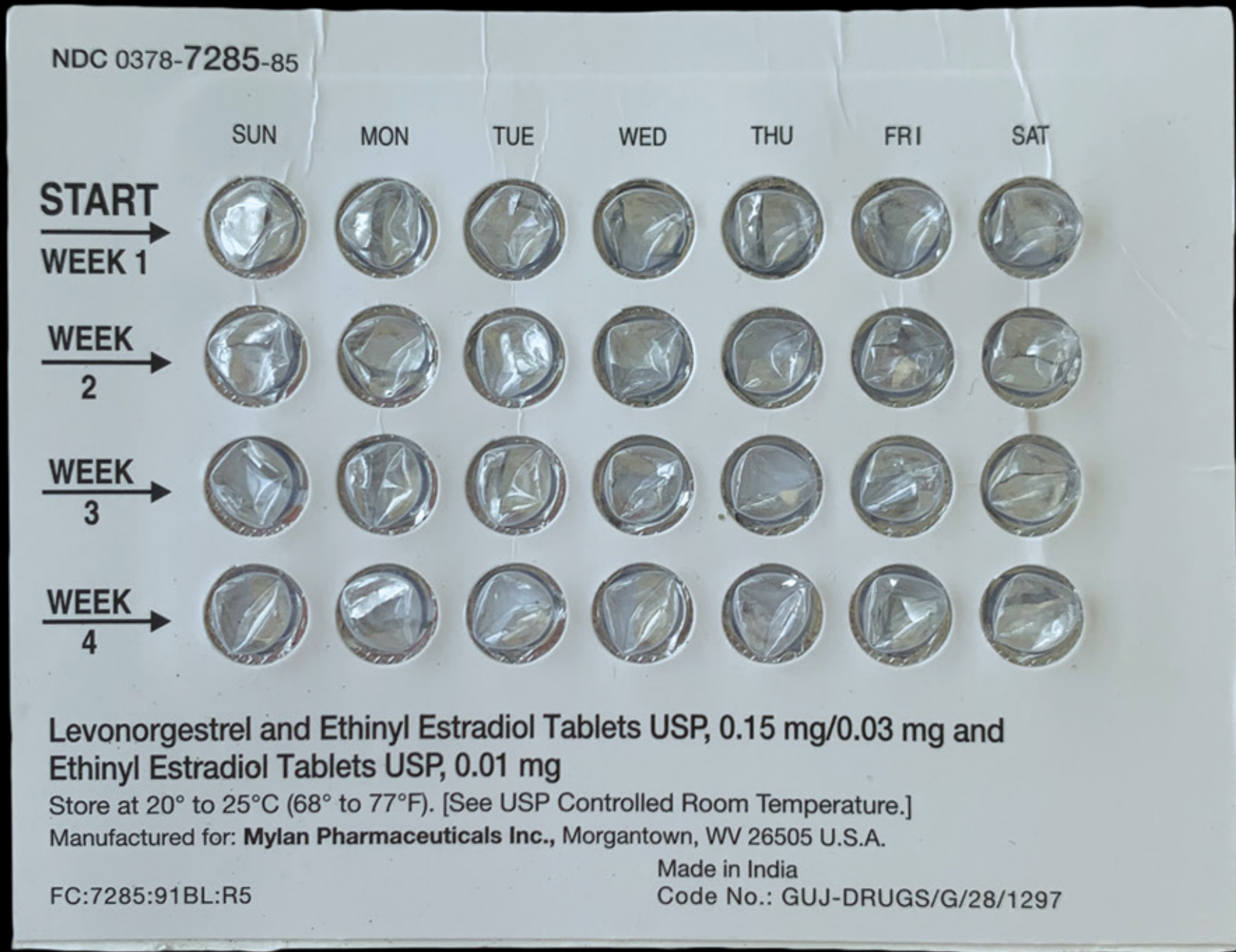
## Mask Hack Silicone Mask Insert Package *Specimen*

These silicone mask inserts were purchased by my singing group, The Stairwells, to aid in pulling the mask away from the face for better projection in singing. The package held 10 mask inserts, costing about \$15 total for all of them. They were purchased from Amazon and the packaging is a plastic ziploc bag.

*This package is white and teal-blue with the brand name "Mask Hack" on the front and back. There is a barcode on the big square of blue. The plastic is opaque and thin.*



Pill Pack  
Specimen



This item was cut apart from a pack of three months worth of medication, all in the same packaging format. It made me think about the large amount of waste that is produced within the medical industry.

*Front and back view of an empty month supply blister pack of birth control pills. It is a white card paper rectangle with empty clear plastic bubbles that have the foil covering them broken.*





## Mint Container

*Specimen*

This container previously held spearmint flavor breath mints. It makes me question why it was made in plastic, because there are plenty of other mint tins made of metal that can potentially be recycled, so why was the less sustainable packaging option chosen?

*A circular plastic container previously holding mints. The bottom is gray, and the top white. On the top there is a sticker featuring text and imaging of the brand in green and gray.*





## Wristband

*Specimen*

I got this wristband from a concert I attended in Columbus earlier this month. The venue gave them to all attendees as our proof of admission. It is made of paper, but has a sort of waxy-like finish.

*A red paper wristband received from a concert venue that has been torn off but still retains its circular shape. The wristband is photographed from both a top view and side view perspective.*





## Gum Wrapper

*Specimen*

This brand of gum holds a lot of nostalgia, with the bright colors and playful zebra tying into that. This particular pack was given to me by my mom, who even said it reminded her of when she was younger.

*An empty wrapper for a small package of gum. The outside is striped with bright red, yellow, and green, and features the logo. The colorful outer packaging is ripped to reveal the white paper sleeves where the sticks of gum are held.*





## Plastic Bag with Sticker

*Specimen*

An enamel pin that I ordered online from amazon came shipped in this bag. I found the color of it very interesting, as well as the fact that it is resealable.

*A plastic bag with a sticker containing a barcode and textual product details. The bag is clear on one side, and silvery iridescent on the other. It is torn open at the very top, but also has a mechanism for re-sealing.*





## Paper Umbrella

*Specimen*

I chose this umbrella because it is something that has no true functional use. It is purely a novelty object intended to be thrown away. But personally, it reminds me of a fun time I had with my friends, which I think gives it some value.

*A small blue paper drink umbrella, pictured both open and closed. The umbrella features floral designs in red and green. Its base is a toothpick, and it has a white cap on the end.*





## Tea Bag

*Specimen*

This is a bag of one of my favorite teas that I brought with me from home. It is licorice mint flavor. I have found another use for these used teabags that I enjoy. I empty out the tea and use the empty bag as a mini 'canvas' to make small drawings that i can hang up around my room.

*A single use tea bag that has already been steeped. The bag is stained slightly yellowish from the tea. A string is attached to the bag with a branded white paper tag at the other end, fastened with small staples.*





## Contact Cases

### Specimen

I have contact lenses, but I only wear them occasionally. Because of this, I have daily lenses rather than monthly, so that they don't dry out if I go a long time without wearing them. While this is the best option for my eyes, it ultimately creates more waste from the lenses themselves and their packaging.

*Plastic containers for a pair of daily contact lenses, sealed with printed foil. The lenses and saline solution have been removed from the clear plastic forms. One case displays the blue and white printed top of the foil seal, and the other one shows its shiny underside.*





## Hanger *Specimen*

This hanger came with a shirt I ordered online for my halloween costume. I was surprised that it was included even though the item was shipped and not purchased in store.

*A black plastic clothing hanger with a yellow plastic tab near the top that reads "Medium". It is the kind of hanger that clothes would be displayed on in a retail setting, to be brought home by the customer along with the purchase.*





## Q Tip *Specimen*

Q tips are such common everyday items, and I found it fascinating that while they have so many different possible uses, they still have to be discarded after that use, whatever it is.

*A white Q Tip cotton swab, consisting of a rolled paper stick with rounded pieces of soft cotton attached to either end.*



Ziploc Bag  
*Specimen*



*7.5" x 5.5" clear plastic bag with a purple zip and a dyed green separated top plastic. The plastic is very flimsy, thin, and can tear easily. It is used for holding small, usually food, items.*





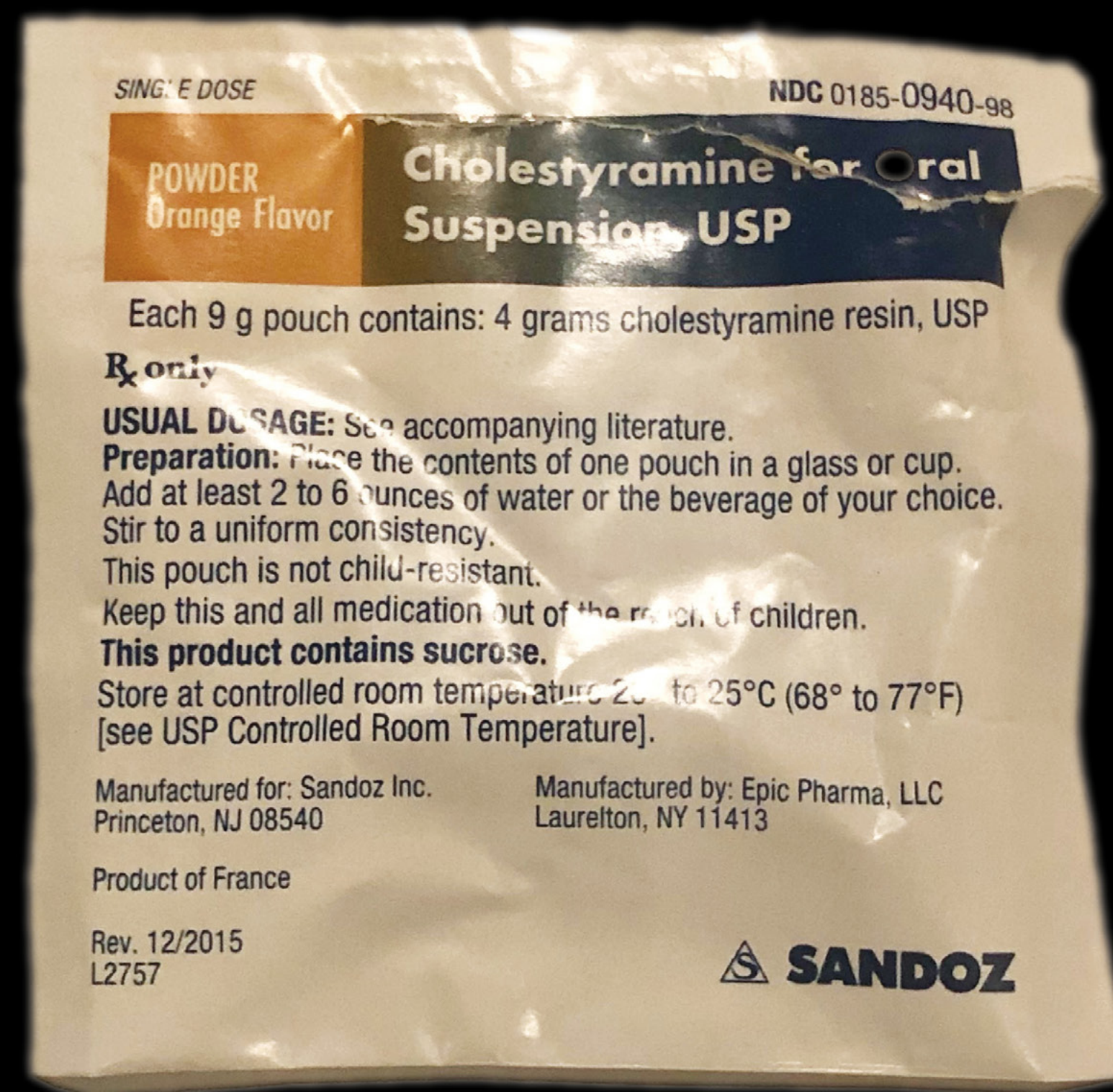
Tea Bag  
Specimen

*3" x 3" small yellow thick paper bag that holds a chamomile tea bag. The bag holding the tea bag is full of different sizes and fonts of text. The paper bag is discarded after getting out the tea bag, which will also be discarded after being made into tea.*



## Plastic Pouch

Specimen



*5.5" x 5.5" shiny white plastic pouch used to hold cholestyramine powder. This bag has minimal detail but has a lot of text describing what the powder contains and how it is supposed to be taken. It has small blue, green, and yellow details towards the top where it is to be torn to combine with water.*



Pasta Box  
Specimen



8" x 14" cardboard box for holding pasta wrapped in flimsy torn plastic. The contents of the box are empty but have a wooden card containing the logo and ingredients of what was in the box. The cardboard box is primarily brown with red accents.



Juice Container  
Specimen



*A large flimsy cardboard box that is decorated in green accents used for holding small apple juice pouches. It also is covered in a torn flimsy plastic used to hold the container together. The box is also crumpled and seems to be discarded, though it is still legible with its large lettering.*



Apple Juice Box  
Specimen



A 3"x 6" used green juice pouch. This pouch used to contain apple juice, as seen in the drawings of apples on the pouch. The small pouch itself is durable and seems to be made of hardy paper underneath and plastic surrounding the outer container.



Keurig Cup  
Specimen



*A used coffee cup meant to make espresso coffee through a Keurig coffee machine. The plastic cup itself is white while the aluminum covering is decorated in primary colors. There is also lots of text on the cover explaining the coffee blend and warnings of how not to use the keurig cup.*





## Glass Bottle

*Specimen*

*A small glass bottle containing collagen elixir liquid supplement. The glass is a dark bronze with a thin metal easy-open lid. There is not much content in the bottle itself and it doesn't have much text on the bottle either.*



## Ginger Ale Can

*Specimen*



*An aluminum can of Canada Dry's ginger ale. This can is almost completely forest green with lots of large and small text. There are accents of designs of leaves and bubbles, showing the sugar content of the fountain drink*





Coffee Filter Box  
*Specimen*

*A red and green empty cardboard box. This box used to contain coffee filters and has now been torn in various places and discarded. The box is very saturated with color yet is flimsy.*





## Potato Chip Bag

*Specimen*

The plastic Chip container bag was the remains that I had bought from the bookstore. I chose to include it because I started to think about how I eat chips when I am stressed. As a result I throw away many potato chip bags.

*The Object is a potato chip bag that is White with yellow stripes. The plastic bag has a silver looking inner lining.*





## Crushed Water Bottle *Specimen*

The crushed water bottle was from my time in quarantine. Every meal Peirce would give us a disposable water bottle and by the end of my 5 days I had at least 10 sitting in my room.

*The crushed water bottle has a blue label attached to it. I started wondering with this specimen if there was a more eco-friendly way we could transport water.*





## Cardboard Box

*Specimen*

When it comes to transporting an object, large conglomerates use boxes everyday to ship various objects. Yet I never thought about what happens to the cardboard after my package has been delivered.

*The box is a brown large rectangle box that is made up of cardboard. Cardboard is easily breakable, and therefore this one has a couple tears.*



## Birthday Candles

*Specimen*



These candles were brought to me on cupcakes by a friend while I was in quarantine. I always found it quite ironic how many single use objects such as candles are traditionally used to celebrate a day of aging and celebrating a longer life.

*The candles are small, thin purple candles. On one of the candles there are white stripes and on the other candle are polka dots. Around the edge of the candles, there is some icing from the cupcake the candle was placed in.*





## Single-Use Cleaning Cloth

*Specimen*

The design is intended to only use the cloth once before it either rips or becomes dirty. When cleaning, I was thinking about what it would be like to repurpose this synthetic cloth.

*The cloth is a yellow, thin cloth that is long.*



## Earring Holder

*Specimen*



This piece of paper served as a reminder to me that there are many futile single-use objects that come with opening something or with packaging in general.

*The object is a rectangle piece of hard paper with a little flap on the upper part of the rectangle. The flap folds sideways and contains two holes to use materials.*





Pringles Can  
*Specimen*

I chose to include this object because someone once told me that a Pringles can is the worst thing for the environment because it is not biodegradable nor can it be recycled because of the mixed material. I thought that the Pringles can could be used to maintain a structure for a sculpture.

*The Pringles can is a purple Pringles can with the old logo of the eyes with the mustache. The flavor on the Pringles can is garlic and cheese.*





## Medicine Bottle

*Specimen*

The Medicine bottle is a plastic bottle that only really has one use. The bottle is one of 4 I have had over the past few months as I get my medication abroad. The bottle could be used as a small pot or something can be stored in it, Since it is square it could also be used as some kind of foundation for a sculpture.

*The medicine bottle is white with a label that says Concerta on it.*



## Linoleum Shaving

*Specimen*



The linoleum shaving is a small piece of linoleum that I had obtained in my printmaking class. The idea behind keeping the linoleum shavings is that it could maybe be melted down and repurposed into more linoleum, however in the print making class the linoleum shavings have just made it into the trash.

*The linoleum shaving is gray and thin.*



Plastic Ramen Box  
*Specimen*



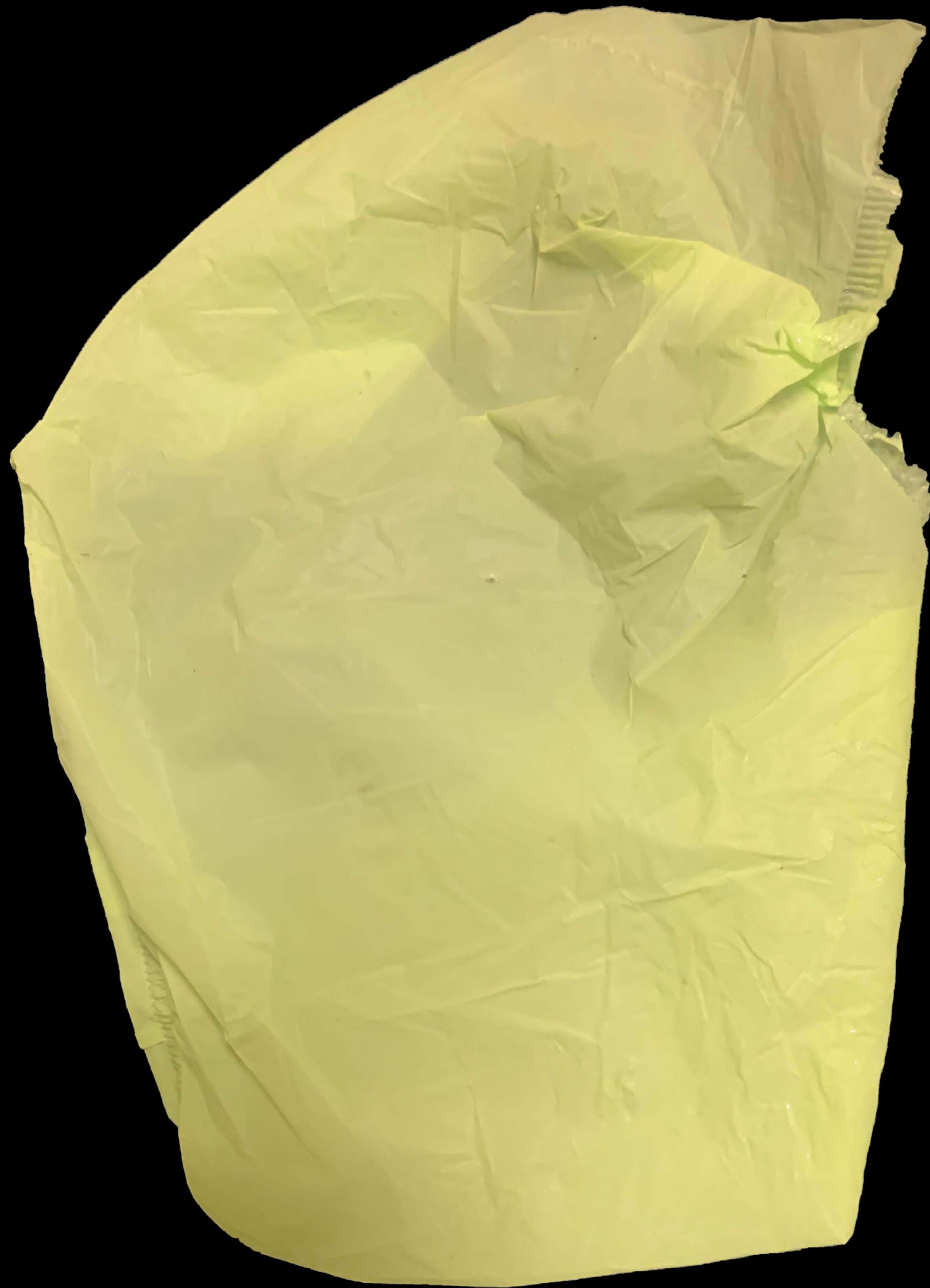
In the square box there was once packaged instant noodles. The box could be repurposed as something to use to store things or as a pot. The ramen box made me think about how much waste I make when I want to eat something that is seen as “convenient”. As a result the idea of what is “convenient” is only convenient to us at the moment and not later on.

*The ramen box is a brown square box.*



## Sanitary Pad Wrapper

*Specimen*



The image represents a thin layer of plastic that is yellow. The wrapper only was created with the intent of being broken and thrown out. Since plastic takes so long to decompose, yet the wrapping is on an object so important to women's health. The plastic piece could be used as a material for sticking, or wrapping another object.



Bottle Caps  
*Specimen*





Disposable Mask  
*Specimen*













Tampon Wrapper  
*Specimen*









## Russian Candy Wrapper

*Specimen*



This is a wrapper from a Russian candy my roommate gave to me. It is shiny and metallic on the outside, but matte and paperlike on the inside. I am intrigued by how intricate it is despite it being mass produced and intended for a single use.



Goodwill Receipt  
Specimen



This is a paper receipt. While much of the industry now uses paperless transaction records, paper receipts are still the standard and have been a practice for a very long time. This is a single use object with an interesting story as each is unique, but typically discarded as soon as it is printed.



## GoGo SqueeZ Top

*Specimen*



This is a hard plastic material that is used to close and reseal an apple sauce package. It is an advantage over the traditional design for applesauce containers because it allows resealing, but it remains a single-use object as there is not typically enough applesauce to require resealing.



## Ibuprofen Packaging *Specimen*



When I found this specimen, my instant reaction was that it was the perfect example of needless single use. First, the container for the medicine is sold in a redundant box. Second, Ibuprofen is the bandaid fix of medicine. It is typically used for temporary symptoms as they arise in individual cases.



## Compostable Knife

*Specimen*



This is a compostable knife that comes in a set along with a fork and spoon. Throughout the semester, I have collected many of these knives without ever using them. It is made of a rather strong material that is also smooth to the touch.



## Floss

*Specimen*



Floss is a rather interesting product. The container is actually really cool and the little plastic window gives a view to its innards. Floss containers are very specifically designed to fit a single function, but could be used for more to expand its life-cycle.



Old Bob Gift  
*Specimen*



I think this is an interesting specimen because it is a single-use product that holds sentimental value. I think it also brings to the conversation of single-use products the idea of gifts and our everyday use. I turned to Robin Wall Kimmerer's Braiding SweetGrass for this project, which gave me this idea about gifts and their place in our consumption.





## Discarded Lamp

*Specimen*

This is a lamp I found in the hallway of Bushnell. I really like and take inspiration from the malleable neck that supports the lamp head. There is still lots of potential for this lamp, and yet it was discarded because it was no longer needed for its intended purpose.



## Covid Test *Specimen*



The pandemic has required a surge in production and distribution of covid tests. The packaging serves the single purpose to provide a consumer with a simple yes or no, yet the benefit seems to serve many purposes beyond its single-use. Despite this, it is still a single-use product.



## Utensil Wrappers

*Specimen*



This is a single-use product that the producer has gone to great lengths to minimize the effects of its waste. Yet, they still fill the trash cans all over Kenyon's campus. I see these wrappers potentially making a yarn.





## Mini Cupcake Container

*Specimen*

This container was selected as a specimen due to its unique shape. This material has potential as a mold, a plant container, or a pattern that could be scaled to create a larger form. This specimen was used as a mold to create the composite agar bioplastic sample.

*A clear, plastic mini-cupcake container with a repeating circular pattern. The object is juxtaposed with a solid, black background.*





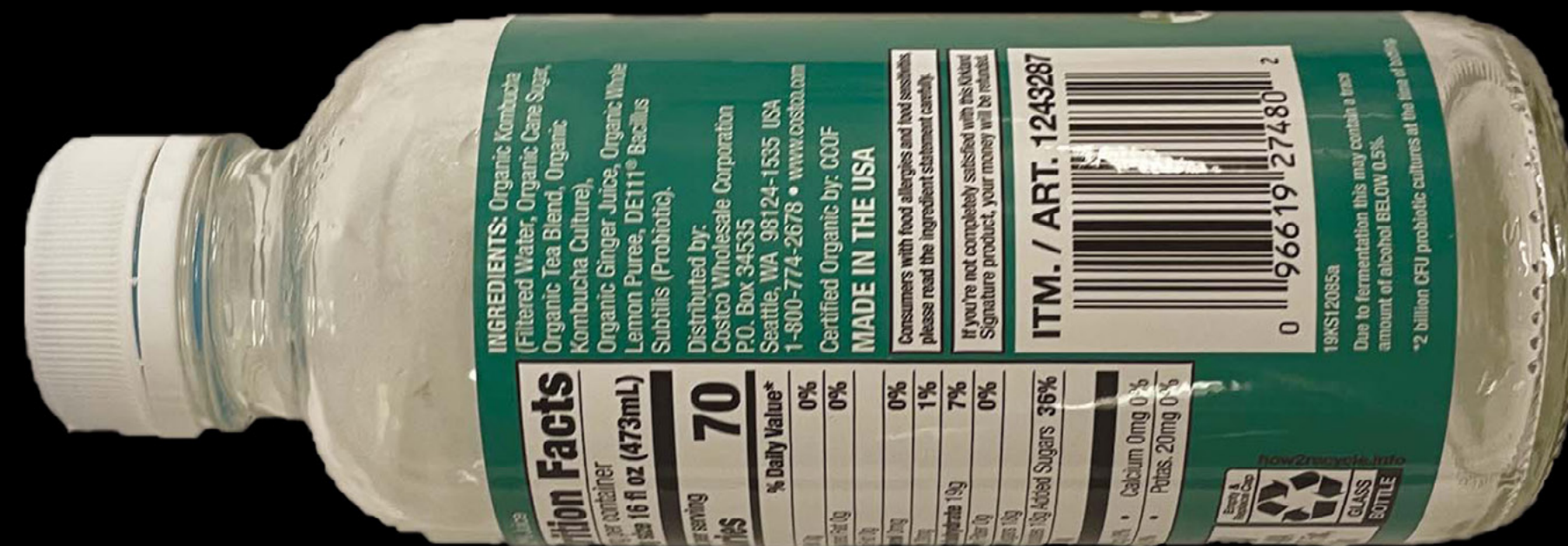
## Yellow Bottle Cap

*Specimen*

The specimen was selected due to its uniqueness in comparison to its contemporaries. Almost all bottle caps are plastic, with little to no effort to have a stylized design beyond its function. This bottle cap sports an intricate pattern of indentation that was later explored as a mold for the agar bioplastic sample.

*A yellow, aluminum bottle cap with the letters “B D K” printed diagonally with bold, white lettering. The cap was originally attached to a bottle of kombucha, hence the phrase “leaf to bottle” printed on the cap.*





## Glass Kombucha Bottle

### Specimen

Due to the pressure of fermentation, kombucha, even on a mass-produced scale, comes in a glass bottle. Glass, as a material, holds a structure in a more rigid manner than plastic. In this way, repurposing this material does not allow us to deviate far from its initial function as a container.

*An empty, glass kombucha bottle on its side. The green label currently displays the ingredients and nutritional information of the drink. A white, plastic cap is screwed to the top of the bottle.*





## Chip Bag

*Specimen*

This specimen is made of polypropylene, a material that can be melted or heated to attach to other plastics. This item is also not recyclable, so there is a large benefit to exploring reuse. The form of the bag can be altered easily by cutting or heating. The original, container form of the bag has not been documented; rather, the bag now takes a rectangular form that can be used to make a plastic sheet.

*A family size Cheetos Puffs bag cut down each side in such a way that the bag takes the form of a flat, elongated rectangle. All Cheeto residue has been cleaned off of the bag and the bag is folded in a way that it displays the orange and blue imagery of the outside of the bag and the reflective foil of the inside of the bag.*



## Plastic Cutlery & Napkin

### *Specimen*



This specimen was acquired from Peirce dining hall. This type of disposable cutlery is often offered when looking to get meals to-go. While each component is recyclable, lack of access to recycling bins on campus leads to this specimen just being thrown away. The requirement to acquire a fork, knife, and spoon when usually only a fork is needed has led to a surplus of spoons and knives, a collection of which I have in my room.

*Encased in a biodegradable plastic package lies a plastic fork, knife, spoon, and napkin.*





## Red Onion Skins

*Specimen*

The pigmentation of red onion skins is a great natural dye. By boiling the skins in water, a brownish green dye can be extracted. The skins also have a potential in composite bioplastics, and were explored in the composite agar bioplastic sample.

*A collection of red onion skins upon a black background. The sample is slightly damp.*



## Brown Paper Bag

*Specimen*



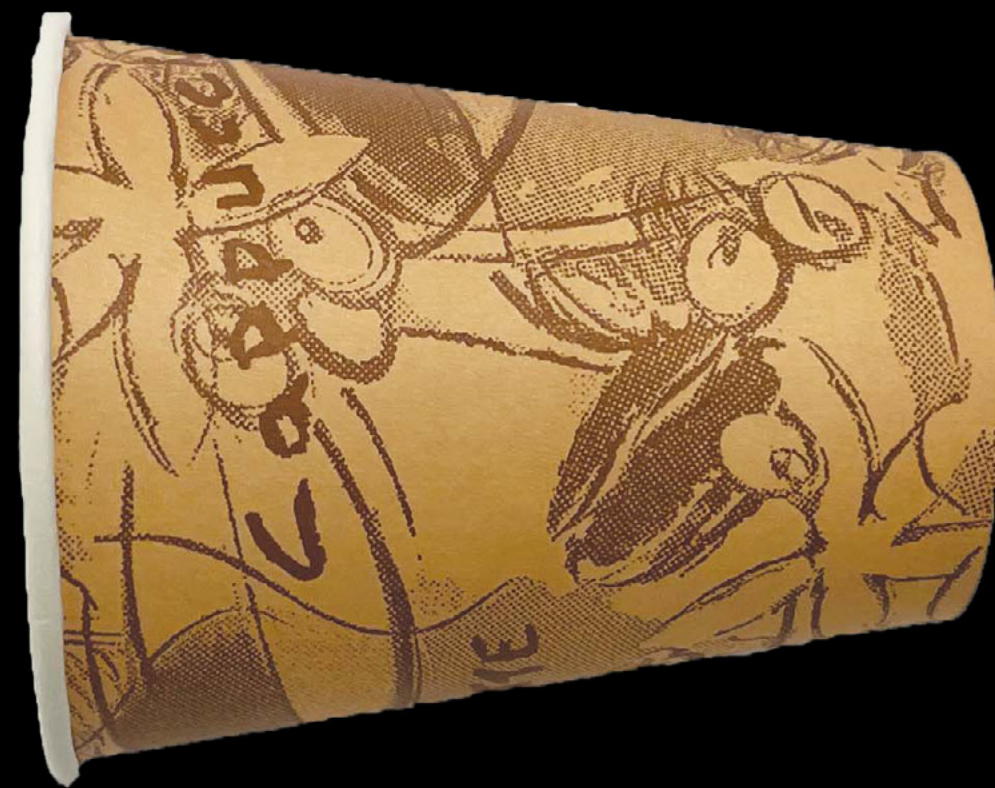
This specimen is already a recycled sample, as described on the bottom of the bag. Much like the chip bag, the form of the bag can easily be altered from container to sheet. Like all paper, this specimen can also be used to make paper using the method taught by Callen Praker.

*A brown, paper, Whole Foods bag. The bag is laying on its side, with the bottom of the bag folded and facing upwards.*



## Paper Cup

*Specimen*



Much like the paper bag, this paper cup is composed of recycled paper. This paper, however, holds a more rigid form, which allows it to be used as a mold or container. This item is also readily available from Peirce, and while recyclable, is often thrown away.

*A brown paper cup on its side. The cup has images of coffee beans, plants, and flowers illustrated with various shades of brown as well as written names of various coffee drinks.*



Design, Sustainability & Culture was a Special Topics course offered during the fall 2021 semester at Kenyon College in Gambier, OH. The Material Library served as the jumping-off-point for the next project, in which students chose a sample or specimen to expand on in a speculative design scenario. The experimental, process-based form of the work generated here is representative of the spirit of the class—embracing questioning, testing and reflection as a means of finding more responsible paths.