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Textiles

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Natural Dye With Blueberries

Introduction

On this project I will be creating a dye using blueberries. It blew my mind that you can use blueberries or find any materials in your pantry to make a dye. However, I knew blueberries can leave an annoying stain on a fabric, but I didn't know it could be turned into a dye. This project was so much fun and I wouldn't mind doing this experiment again using another natural dye ingredient. In my research paper I will be discussing the history of blueberries, color in fashion today, the process of making dye with blueberries and the findings. I hope you enjoy my first hands-on fashion experiment as much as I did.

Blueberries History

Did you know you can make a natural dye with blueberries? It sounds unbelievable but it's true. Blueberries create shades of purple, pink and blue. The reason why blueberries intentionally dyes your garment or fabric is because blueberries contain a chemical called anthocyanins, which is a flavonoid that has antioxidant effects. Many foods contain anthocyanin, which gives a rich coloring to plants with pigments of purple, red and blue. When making your dye with blueberries, you may experience colors like pink, purple, blue or black. However, it all depends on the pH in the water. For example, think about what would happen if you were to leave fruits outside in the sun for many long hours. Well, the coloring of fruits that contain

anthocyanins will fade eventually after being exposed to the sun. The same thing will occur when your garment has been exposed to light for a certain amount of time. Don't be surprised if you start to see the dye from the blueberries on your garment turn brown. Just keep in mind that it only depends how much exposure to the sun your garment takes in. Blueberries came from North America and are famously known to be used for toppings on pancakes, waffles and other delicious desserts. When Native Americans discovered blueberries, they used the berries for its natural flavoring and medicinal purposes due to health benefits. For example, the juice of the fruit was used as cough medicine. "Berries were also boiled down into a thick syrup which was used to treat the coughs and sore throats caused by tuberculosis." Berries were very essential back then.

Color In Fashion Today

Although berries are blue it is not my comfort color. However my comfort color would be black because it is a comfortable color to wear. Not only is it a comfortable color but black can pair perfectly with other colors as well. In my opinion black is such a stylish color. If you look inside my closet, the majority color of my clothes are black. My favorite garment from my closet is my black bodysuit turtlenecks. Sometimes I wear my black bodysuits to go run errands and I get this feeling that I'm going out on an occasion, when in reality I'm not. Whether I'm wearing a turtleneck or a bodysuit, it makes me feel confident and sophisticated. To add more glamour with my bodysuit, I love wearing my necklaces and my pair of black sunglasses to finish my look. Alexa Demie who is an actress and stars in the HBO series Euphoria is my colorful style inspiration. Her colorful style is on the neutral side, and she is always adding accessories to her look such as sunglasses, earrings, necklaces and purses. You can also expect Demie's eye makeup

to match the color of her outfit. Her eye makeup goes from being natural to dramatic, but just know the colors are going to pair up with her colorful style.

Blueberries Dyeing Process

The first thing I did before starting my blueberries dyeing process, I bought a 100% cotton shirt along with rubber bands and two small packs of blueberries. Once I bought all the materials I was going to need, I went on youtube and watched a bunch of tutorials on how to turn blueberries into dye. After watching a tutorial that was perfect for me, I wrote down all the steps before starting the dyeing process.

Here's what you're going to need:

1. Salt
2. 100% Cotton Shirt in White
3. Pack Of Blueberries
4. Rubberbands

Step 1: Use a pot to boil 10 cups of water and pour half a cup of salt into the pot. You must wait till the salt dissolves.

Step 2: Once the salt dissolves, grab your white shirt and put it into the boiling water on medium heat, and leave it cooking for 30 minutes. (Use a timer!!!)



Carefully place the shirt into the boiling water



Cook it for 30 minutes. You can use a timer on your smartphone.

Step 3: While waiting for your white shirt to cook for 30 minutes, pour your blueberries inside a big bowl and start crushing the blueberries with a cooking spoon.

The blueberries should look like this, you should use a cooking spoon when you are ready to crushed the blueberries.



Step 4: After 30 minutes are up, remove the shirt from the pot and let it cool off. Don't throw out the water you were using, you're going to use it for the following step. When you are finished letting the shirt cool off, squeeze out the excess water. Make sure the shirt is completely damp.

Step 5: Dump in the crushed blueberries inside the same boiling water you used before.



Step 6: Let the blueberries simmer for about 45-50 minutes.

Step 7: Grab your shirt and lay it flat on a table. Start from the bottom of the shirt and begin to scrunch the bottom sides of the shirt and work your way up. Make sure your shirt is squished together tightly.

Lay the shirt flat on a table, make sure you have plenty of space.



Scrunch your shirt using both hands. It should look something like this.

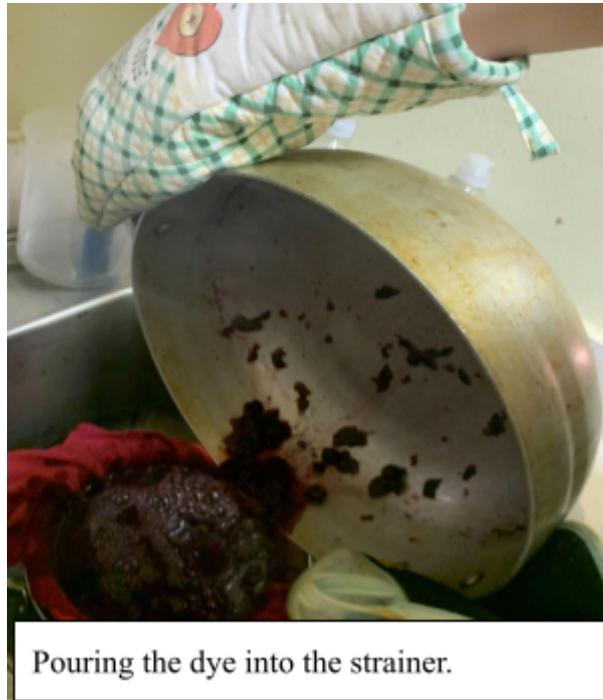


Step 8: Start wrapping your crumpled shirt with rubber bands. You can add as many rubber bands as you like. This is going to secure the crumples together tightly and make the patterns very defined.

Once you finish securing your crumples with the rubber bands, it should look like this.



Step 9: When you are finished wrapping your shirt with rubber bands, pour your dye into a strainer (make sure you put a pot underneath the strainer). Be cautious! Your dye is going to be extremely hot and you don't want to burn yourself.



Pouring the dye into the strainer.

Step 10: Once you finish pouring your dye through the strainer, dump your shirt onto the dye. Make sure to flip the shirt a few times.



Step 11: Leave it overnight.

Step 12: Take your shirt out of the dye and begin to wash your shirt with just lukewarm water while removing all the rubberbands.

Step 13: Let it air dry.



Front of the shirt.



Back of the shirt.

Step 14: The Final Results.



Finally, this is me wearing my garment.

Findings

My project came out perfectly the way I wanted it to come out. Before I began the project, I kept rewatching the same tutorial until I felt like I was ready to begin my project. Once I gained confidence, I wrote down each step on a piece of paper as I was rewatching the tutorial one last time. The first thing I did was pour ten cups of water into a pot and pour a half cup of salt into the water. While I was waiting for the water to boil for 30 minutes I began to crush the blueberries in a bigger bowl with a potato masher. The potato masher wasn't working out for me so I decided to use a spoon. With the spoon it was a faster process but my fingers started to hurt, and I decided again to use a different essential which was an ice cream spoon scooper. The crushing of the blue berries was a little faster than before. As I was crushing the blueberries with the ice cream scooper, I noticed the color of the blueberries was turning purple. I never realized that blueberries are actually purple. When I was half way done with crushing the blueberries, I noticed there were a few more blueberries that didn't get crushed. I stopped using the ice cream scooper and began using a cooking spoon. The cooking spoon made a huge difference and crushed each blueberry that didn't get crushed previously from the other kitchen essentials I used. Once I was done crushing the blueberries I was stirring the dye and noticing the color becoming more of a dark purple. When the shirt finished cooking in the boiling salt water, I removed the shirt from the pot and let it cool off in the sink. I then poured the crushed blueberries inside the same boiling water and let it simmer for 50 minutes. As my shirt was cooling off and my dye was in the process of being cooked, I took a mini break. In between my break I kept checking on my dye and noticed a huge difference. When the berries were first

poured into the water, it looked like berries being diluted with water. Afterwards, the purple dye from the berries began to show. Once my shirt was finally cooled off, I squeezed out all the excess water from the shirt until it was completely dry. I laid the damp shirt flat on the table and decided to do the crumple tie dye technique. All I did was scrunch the shirt into balls and used the rubber bands to hold them in place. On the youtube video I was watching to help me better understand the crunching technique, the person behind the camera uses four rubber bands to secure the scrunches, but I wanted to add more than four rubber bands. Therefore, I used at least 12 rubber bands to secure my scrunches. It took me a couple times to understand the crumple tie dye technique. When I was finished adding the rubber bands, it was time to dump my shirt into the dye. But, before that I had to pour the dye into a strainer to get rid of the residue from the crushing of the blueberries. Unfortunately, that didn't work, so I just poured the entire dye into a new pot and dumped my shirt into the dye. I stirred the shirt a few times and flipped it over to make sure it gets enough coloring. Finally, I left my shirt in the dye overnight and waited till the next day. When I woke up I took my shirt out of the dye and before I removed the rubber bands, I already noticed splotches of light and dark shades of purple. I hand washed the shirt with lukewarm water and removed the rubber bands. I didn't use any soap because I was afraid some of the dye would come out. After finishing washing my shirt I squeezed out all the excess water and let it air dry throughout the day. During the air drying process, I noticed my shirt had a few pink splotches. This could be because I didn't wash the dye completely off the shirt. However, I didn't expect my shirt to come out the same as the tutorial I followed. Other than that I am completely satisfied with the results of my shirt.

Conclusion

Overall, I got the experience of making a natural dye and having a better understanding of what makes blueberries give colors such as purple, pink and blue. For instance, when I was crushing the berries I didn't expect the juice from the berries to turn purple. As I was researching information about blueberries, I realized there are so many more facts about berries than just being a healthy snack. Another task I learned is creating patterns using different techniques such as the crumble. This experiment was so much fun and I would do it all again if I had to do it. It is so easy and inexpensive which is good for someone who wants to start a small business of making their own dye using natural ingredients.

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