

David Bautista

Blueberries Are Not Just a Fruit!

Dr. Nazanin Munroe

Textiles BUF 2246 OL35[15690]

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In this project, we will find...

- The history of blueberries
- The color produced from blueberries in today's fashion
- What color is produced from blueberry dyeing

One may ask what are natural dyes? First let us define the word dye, dye means to color in or change the color of something using natural or synthetic materials. Natural means made by nature and not by mankind. When you put them together, natural dyes are colorants made from nature such as animals, plants, and minerals. This is the opposite from synthetic dyes. Some examples of natural materials used to make natural dyes are turmeric, indigo, onion skins, madder, lac, fustic, and safflower. The list goes on and on. Each of those materials can be used to make an unlimited number of colors. But for some time now, certain countries chose to use synthetic dyes over natural dyes, which makes the usage of natural dyes to decrease and be passed down to generations (Mayolo, 1989). It's better to use natural dyes than synthetic dyes because natural dyes are more eco-friendly. For example, when using turmeric and indigo as a natural dye, turmeric helps revitalize the skin while indigo cools the skin. It's also better to use natural dyes because synthetic dyes can have harmful chemicals inside of them that can be harmful to us (Siva, 2007). In this experiment, I will be using blueberries as my natural dye and apply it on a t-shirt to create a tie dye pattern. But before I show you the steps and results, here's a little information on blueberries.

Blueberries:

Using blueberries as a natural dye was being used early as the 1400s in North America by the Native Americans. They would use blueberries as a dye to use in quillwork dyes (Cole &

Heald, 2010). So, you could say blueberries have been used as a natural dye for hundreds of years. There are numerous of color you can produce with blueberries. For example, in New's (1981) studying's, he found:

The blueberry when boiled with a little alum and a solution of copperas will give a dark blue colour and if the berries are treated with a solution of nut galls, it will produce a dark brown tint. Various shades of purple and red could be obtained from the berries, if they were used in conjunction with alum, verdigris or Sal ammoniac.

My guess is that the blueberries weren't expensive to use because they could've been easily grown and were probably growing everywhere. Even now, I would say blueberries aren't as expensive. It costs around \$2 to \$3 for one container of blueberries, sometimes there deals on blueberries like \$4 for two containers. Based off my research, blueberries were not subject to sumptuary laws. The blueberry did have a symbol and it was used to color spirits in ("Scientific American", 1888).

Some of my favorite colors to wear are black, grey, olive green, red, light blue and orange. The colors black, grey, and olive green put me in like a neutral mood where I feel like i can wear them with anything. Meanwhile the colors red, light blue, and orange put me in the mood to stand out and be loud. I can wear those colors sometimes when the mood feels right. My favorite garment is a hoodie because I feel like a hoodie can be worn any time any season. A celebrity's style I admire is Kid Cudi or Scott Mescudi. His style changed throughout his career as a music artist. I really like his older style when he was and upcoming rapper in the early 2000s. One thing I will always admire about his style is he isn't afraid to wear what he wants even if it's outrageous to some people.

The Dyeing Process

Materials Used



- Cooking pot
- Bowl
- Perforated/self-draining bowl
- Measuring cup
- Potato smasher
- Spoon
- Rubber bands
- Salt
- Blueberries
- Cotton t-shirt
- T-shirt to strain blueberry pigment

Step 1:



First, you're going to use the measuring cup and fill up a little over half with salt.

Step 2:



Then you're going to use the cooking pot and fill it up with about 10 cups of water. And place on a stove to heat up.

Step 3:



After you place the pot on the stove, you're going to pour the cup of salt into the pot and stir to dissolve. Then you're going to let the water boil.

Step 4:



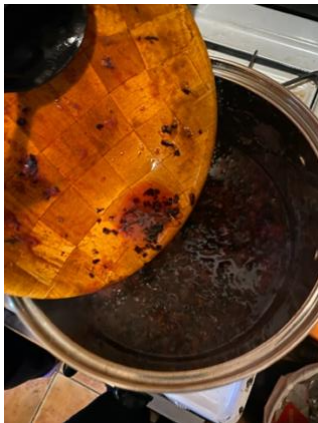
Once the water begins to boil, place the t-shirt into the pot and let it submerge for 30 minutes.

Step 5:



While you let the t-shirt submerge, pour your blueberries into the bowl, and use the potato smasher to crush them. You'll want to crush enough to get as much pigment.

Step 6:



After 30 minutes, take out the t-shirt and place the smushed blueberries into the same pot. Let it sit for 45 minutes.



Step 7:



While you let the blueberries sit in the stove, begin folding the t-shirt. I went with the accordion fold.

Step 8:



After 45 minutes have passed, you're going to take your fabric to strain the blueberry pigment and place it over the self-draining bowl. Then you're going to place that on top of another bowl to collect the dye. Once that's done, you're going to pour the dye on to it and strain it. You can use your hands or spoon.

Step 9:



After straining the dye, you're going to place the folded t-shirt into the bowl. Using a spoon, you're going to pour the dye onto the shirt and let it sit on that side for 30 minutes. After 30 minutes, you're going to flip to the other side so both sides can be exposed to the dye.

Step 10:



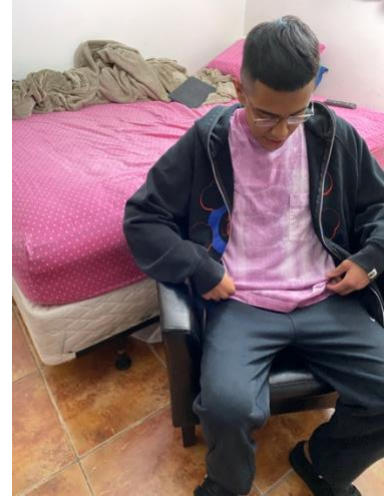
After you let the dye set in, take out the t-shirt and wash it with cold water. Do not wash with detergent, just with cold water.



Step 11:



After washing the t-shirt, let it dry. You can either let it air dry or machine dry it. Once it's dry you can wear it!



My project didn't quite turn out the way I wanted it to be but after looking at the result more and more, I started to like the outcome especially after I slightly machine dried it. After I took out the t-shirt from the dye, the center of the shirt in the front and back was darker than the rest. After I noticed that, I thought about how it would look when it fades after each wash. Another thing I noticed was the contrast stitching it got after I dyed it, which I really like. The video tutorial I used had a different outcome than mine. The color on the tutorial was lighter than mine, like a lilac shade than a pinkish shade but I still love how mine came out.

This project taught me about natural dyes and its history. Also, how to apply a natural dye on a garment or fabric. I also learned that preparation is key in dyeing. If you don't prepare your garment or fabric correctly, the outcome won't come out as you'll want it to be. It's quite easy to use natural dye. After this project, I do look forward to using natural dyes again.

References

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