

Eco-Palette Project – Claire Lee

I created the Eco-Palette as a response to the environmental impact of traditional painting practices, specifically focusing on the water waste generated by watercolour painting. The idea was born from my observations that artists frequently dispose of paint water without any recycling options. This project aims to develop eco-friendly paint solutions that incorporate plant-nourishing ingredients, allowing the water waste from painting to be repurposed for watering plants. By incorporating these ingredients, Eco-Palette targets artists and environmentalists alike, seeking to reduce water waste and promote sustainability within the art community.

After conducting research on different types of paints, their materials, and processes, I chose watercolours for their simple formulation, which allowed for an easy substitution of plant-friendly ingredients. Using natural components such as gum Arabic, honey, and Schultz Liquid Plant Food, along with DIY equipment, I created a binder by mixing distilled water, gum Arabic, honey, and plant food, which was then combined with natural pigments and transferred into bottle caps to dry.

I made three prototypes, adjusting the binder's preservation process to prevent mold. Eco-Palette's paint prototypes were all well-pigmented and fast drying, although the first batch failed due to the binder spoiling without preservatives. The following batches were successful, allowing me to test the plant-nourishing properties of the paint water. I watered two hyacinths, one with regular water and another with water containing the Eco-Palette binder. The treated plant grew 1.5x faster and bloomed earlier, supporting the hypothesis that the paint water could benefit plants. Surveys indicated strong interest in the product, with many respondents expressing a willingness to buy, even if they weren't artists.

Eco-Palette has highlighted and successfully demonstrated that art supplies can be both eco-friendly and high-quality, which shows that sustainability can come without compromise. In the future, I plan to refine the binder's preservation methods, expand the colour range, and develop a compatible formula for oil paints, so we can bring Eco-Palette to a broader market.

I'd like to thank my parents for their endless support and for always pushing me to be my best, and my teachers for all their help, both emotionally and academically.

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