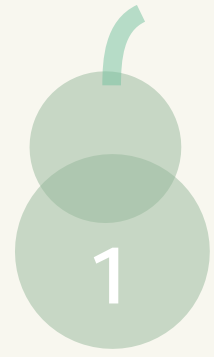


CRÈME
JUN AIZAKI
ARCHITECTURE
& DESIGN

THE GOURD PROJECT

A chemical free, fully compostable alternative
to single use plastic cups





The Gourds DESIGN STATEMENT

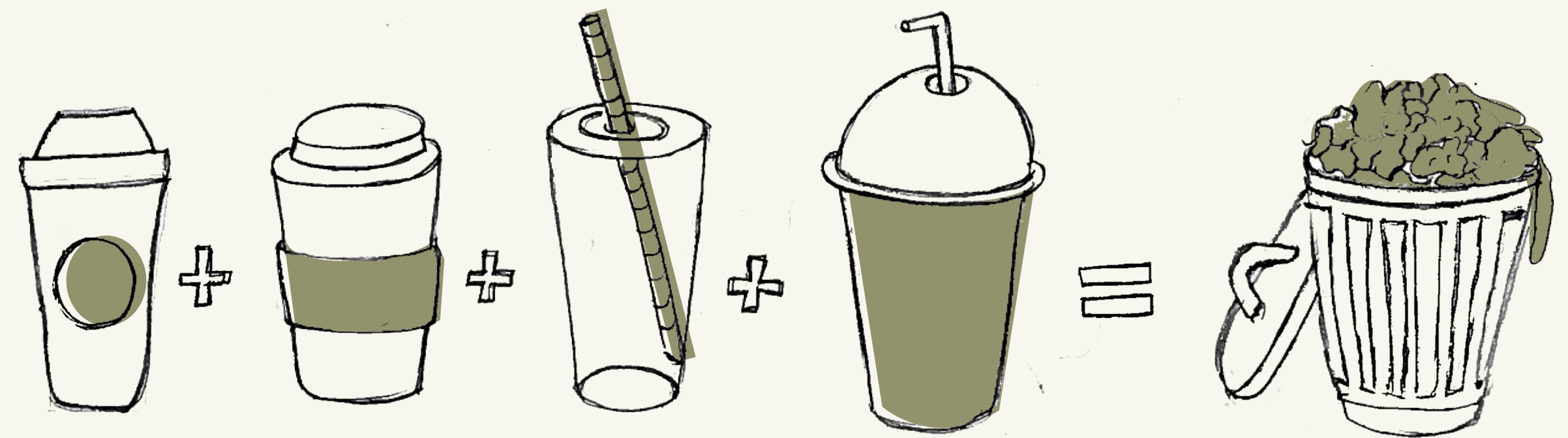
DESIGNER / Jun Aizaki, CRÈME

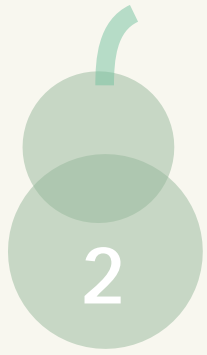
TIME / 2015- Ongoing

MATERIALS / Gourds

We are in an urgent need to shift our current cradle-to-grave paradigm. Take-away cups and packaging are a standard of everyday life but they produce an incredible amount of waste that ends up in landfills and contaminates our precious waterways and landscapes. What if aside from being a material resource, nature could also provide a solution for this worldwide issue?

For the last few years, CRÈME / Jun Aizaki Architecture & Design has been exploring a way to bypass this waste cycle through a biodegradable molded gourd. We call it the “The Gourd Project”.

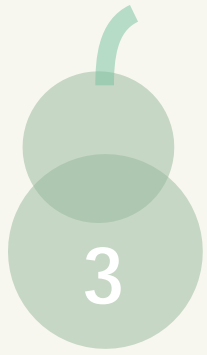




Our **SOLUTION**

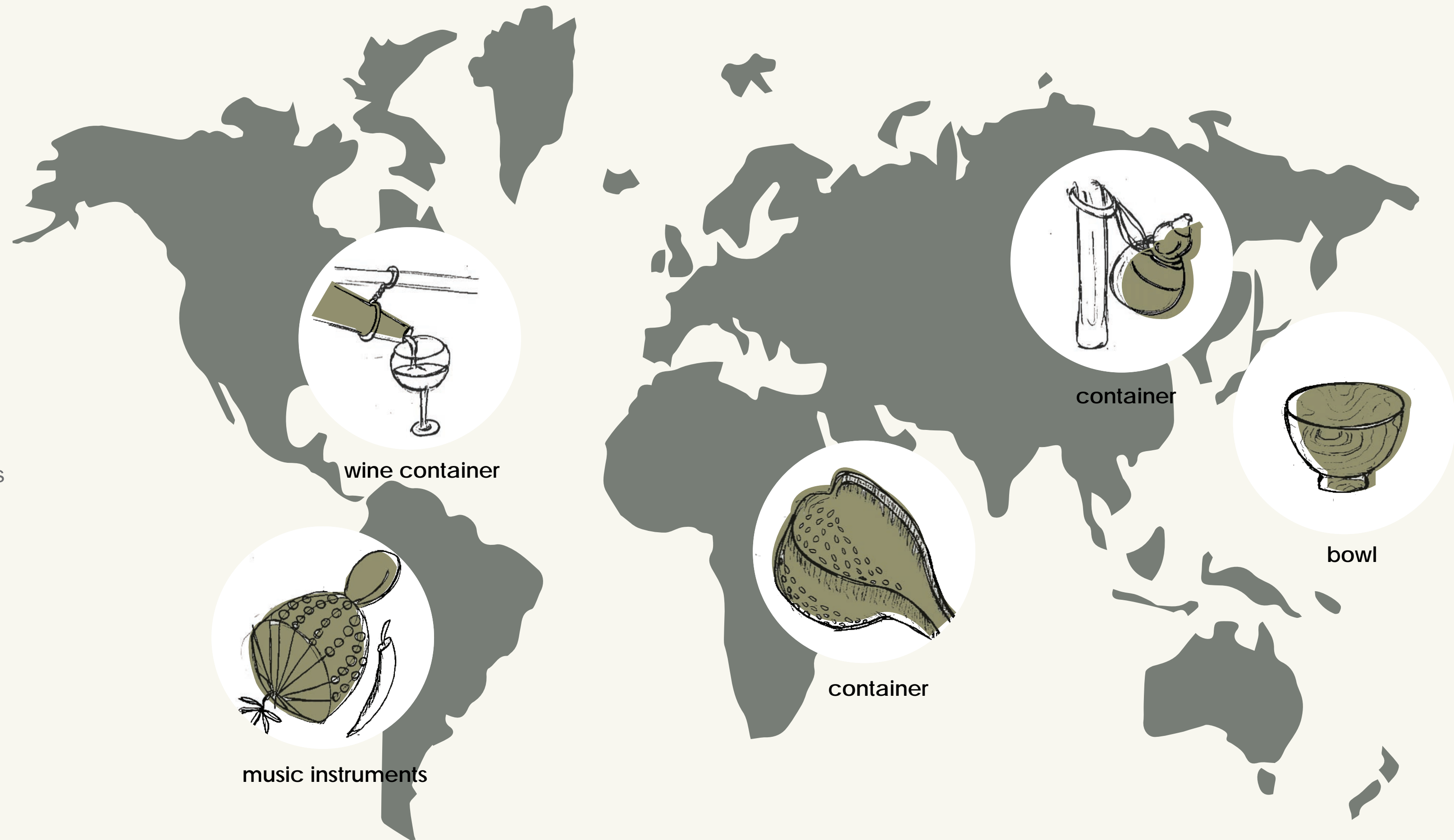
Along the exploration that this thought initiated, CRÈME identified gourds as a fast growing plant that bears robust fruits each season, developing a strong outer skin, and fibery inner flesh. Once dried, gourds have traditionally been used by ancestors as receptacles like cups. CRÈME explored this centuries-old craft, using molds to grow gourds into functional shapes, such as cups and flasks to create sustainable, renewable, and compostable products without waste.

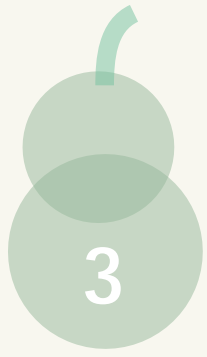




The Gourds HISTORY

Gourds in the daily lives of native people, that they were introduced into human cultures throughout the world. Probably their most important use was for containers, including pots, pans and bowls, and these gourds are still used to this day in many parts of the world. For water vessels, they are still preferred over earthenware jars because they are lighter and they cool the water by evaporation. In addition to containers and eating utensils,





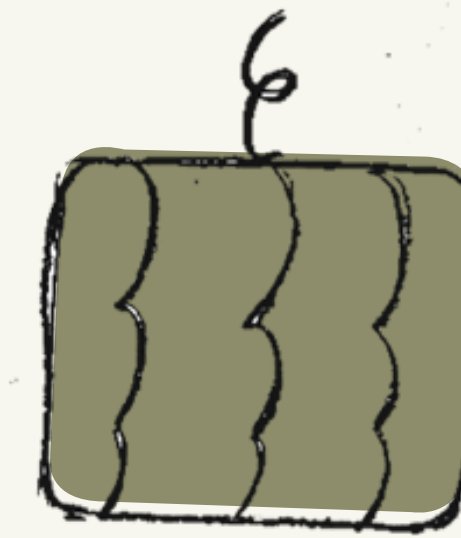
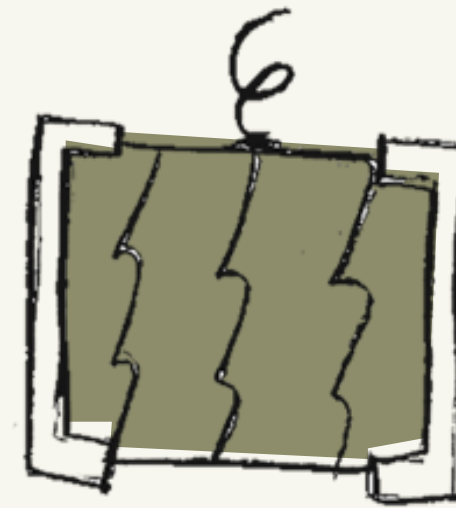
The Gourds

INSPIRATION

“In Japan watermelons are grown in little boxes so that they become square. It looks quirky and weird, but it makes them easy to stack and transport. The idea is giving nature a little bit of a nudge to form it into shapes that would be more functional.”

- Jun Aizaki

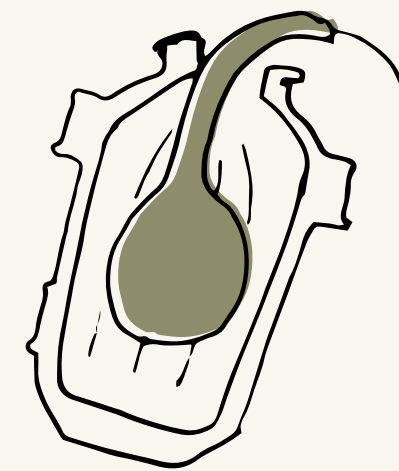
Gourds are fast-growing plants that bear robust fruit each season. Once dried, the gourds' strong outer skin and fibrous inner flesh becomes watertight – so these crops have been used for centuries across the globe as decorative or functional vessels. CRÈME is exploring this centuries-old craft through a modern lens to create a product that we believe can be mass produced while maintaining its sustainability. Through the use of 3D-printed molds, we can grow gourds into customizable functional shapes, such as cups and flasks that can be composted instead of filling up landfills like the plastic alternative.



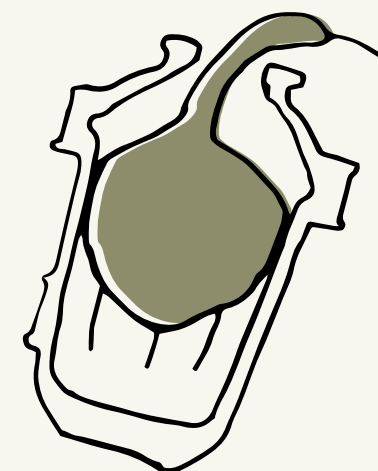
The Gourds

DESIGN PROCESS

Aside from the sustainable benefits of The Gourds, the 3D printed mold allows us to create a deliberate aesthetic that can be both beautiful and functional. Through many studies and prototypes, we have developed a set of pieces that mimic the silhouette of a classic faceted glass cup and a carafe with a lip detail.



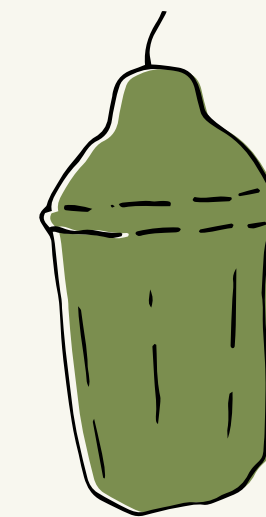
Young gourd placed inside and closed mold.



Gourd growing inside mold.



Gourd growing inside mold.



Gourd cured and dried.



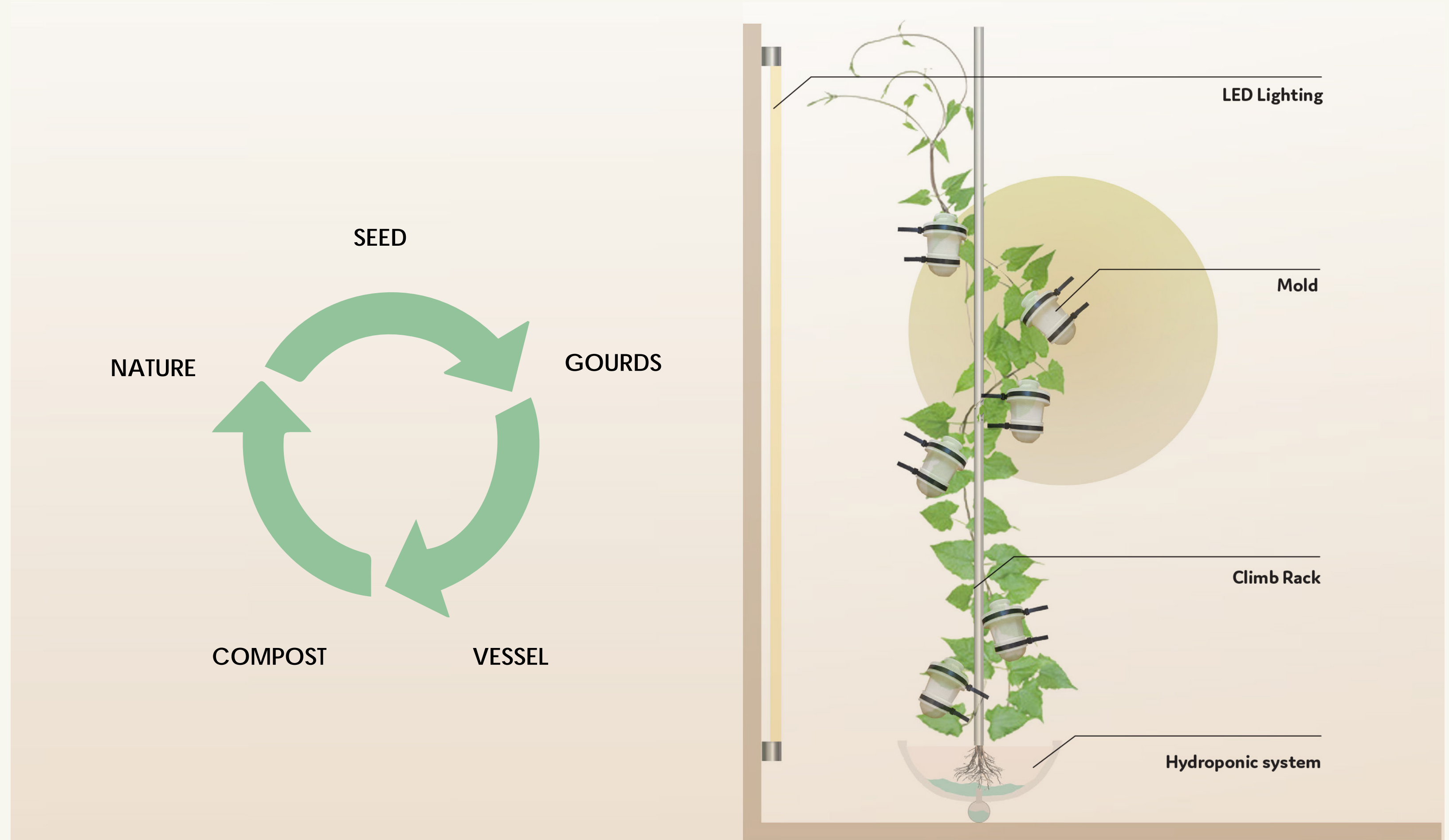
Dried Gourd cut and clean.



The Gourds

GROWING PROCESS

Even though the practice of molding gourds has been around for centuries, there are complications to mass producing a consistent product with an organic material. We started our experiment growing a few gourds outside in our backyard and eventually found a farm to take on a larger batch. However, there are a variety of factors that cannot be controlled in an outdoor environment, such as humidity, pests, weather, and flooding. We would like to explore growing gourds in a controlled setting to limit these external factors and see if we can produce a more consistent product.





The Gourds

INDOOR LABS

The Gourd Project Indoor Lab is the next step in this journey to finding a sustainable alternative for the notorious plastic cup. Like all new projects, we are starting small and hope to scale up to increase quantity and lower the price per gourd, so that The Gourds can be a viable challenger to the plastic waste industry.

We plan to initially invest money towards R+D, so we can grow the gourds in both indoor farming facilities and outdoor farms, allowing us to scale up the quantity and lower the price per gourd. The goal is to keep the high quality and quantity, so that The Gourd can be a viable challenger to the plastic waste industry.



CONTAINER LAB



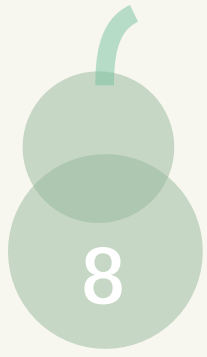
WAREHOUSE LAB



The Gourds FUTURE

We hope to introduce The Gourd Project initially to a niche market, such as the coffee or tea industry. We would love to work with eco-conscious or green companies. For example, Clif Bar, an American company that produces organic foods and drinks, reached out to us to inquire about replacing all the cups in their offices. Another possibility would be to partner with a specific brand like Think Coffee, which has implemented projects related to feminine hygiene, adult literacy, medical care, reforestation, and housing restoration. After that, we would love to collaborate with large companies like Starbucks which has high average number of customer per day.

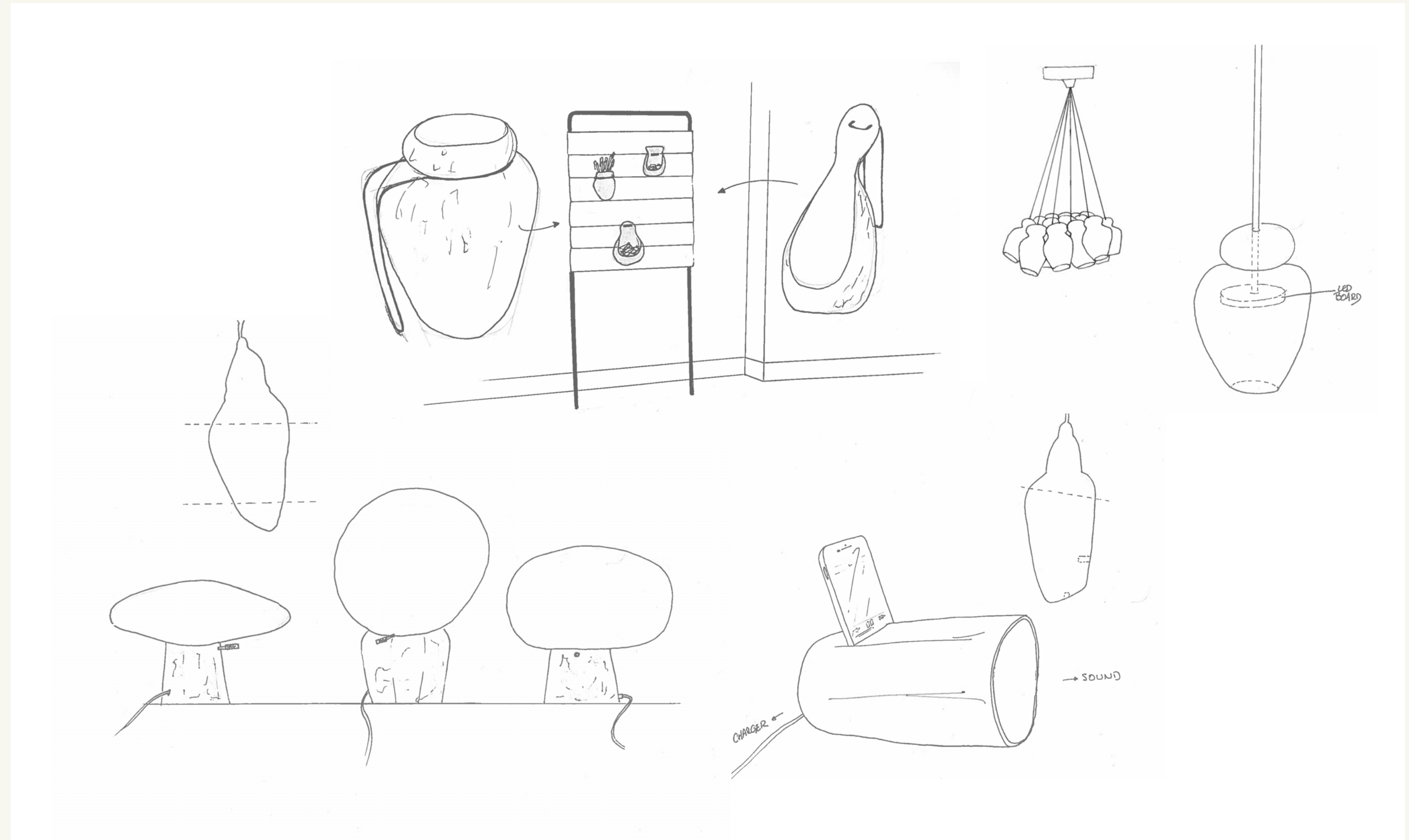
YEAR	2018	2019	2020	2021	2022	2023
PHASE	PRE R+D	R+D	COMMODIFY	NICHE MARKET	LIMITED USE	GENERAL USE
MARKET		Internet, Made to order	Museum's gift shop, Design store	Specialty Tea	Limited use instore	Use in coffee shop
PRICE			ex: MOMA Design store	ex: TWG Salon	ex: Think Coffee	ex: Starbucks Reserve
QUANTITY						

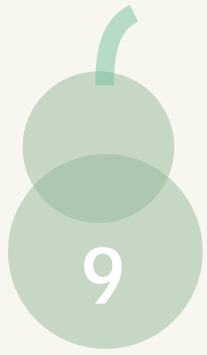


The Gourds

FUTURE

The concept of The Gourd Project is not only for one product but an idea to limit waste associated with single-use plastic. The process of creating The Gourds can be applied to various products all across the service industry. Imaging this technique can replace the item which need a thin plastic surface, we can apply the process to packaging, accessories, such as a lamp and technology, such as speakers, using the natural acoustic of the gourds to improve the sound of a phone.





The Gourds

DESIGN FEATURES



• Our goal is to replace the single-use plastic cup with multi-use gourd cups.



• We need to scale up to a mass production model, either using indoor farming techniques, grow lights, or a controlled environment that can help speed up the process and expand our reach.



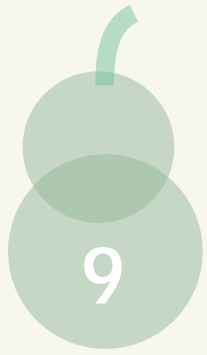
• Single-use plastic cups are not biodegradable and cause a mass amount of waste, which we aim to reduce with this fully biodegradable cup.



• Most of the “biodegradable” cups that are on the market, are lined with a chemical to ensure that they do not leak, but the chemical is not compostable. Our product is free from chemicals and fully compostable.

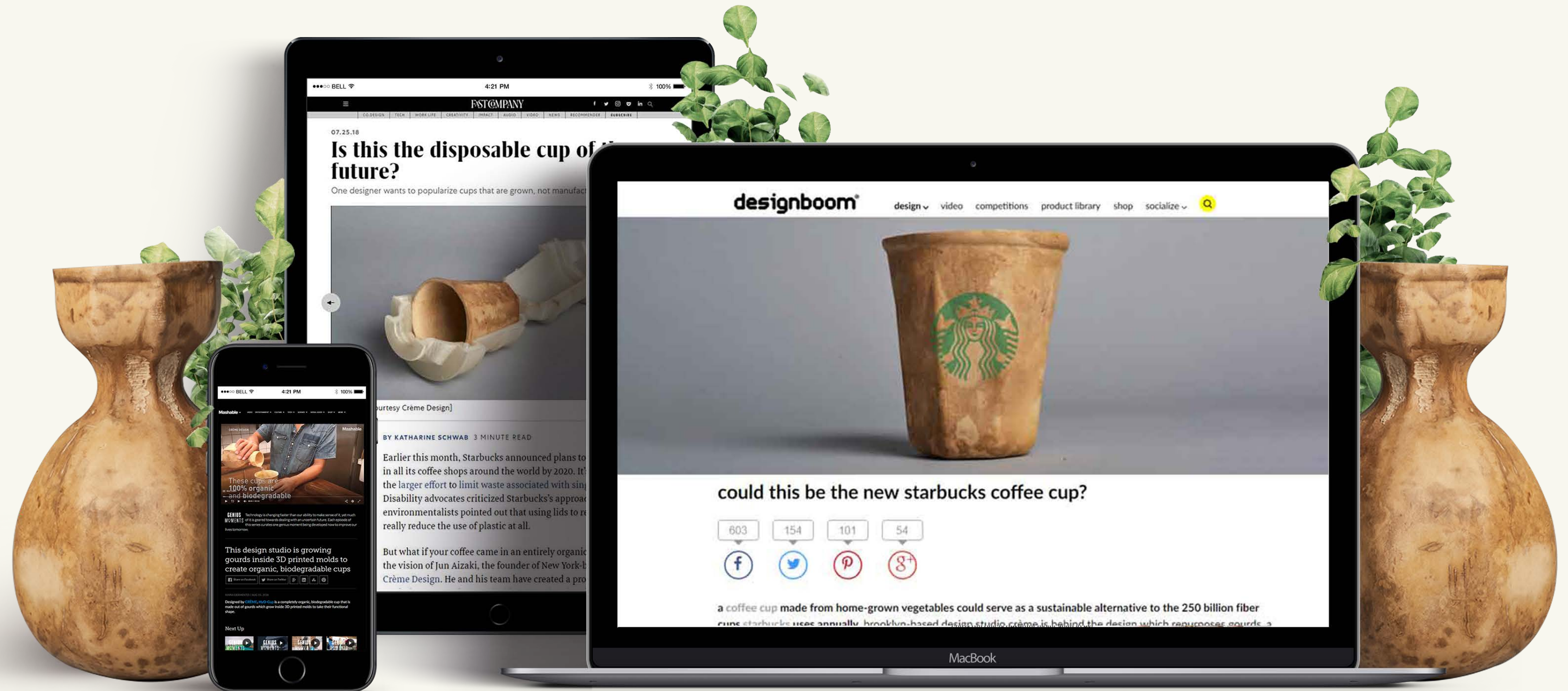


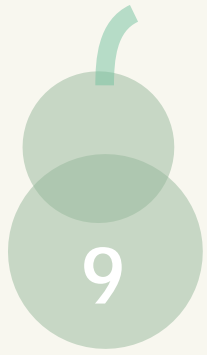
• We aim to increase interest and awareness in ideas such as ours, in hopes that it will lead to further experimentation and research by potential partners.



The Gourds MEDIA INFLUENCE

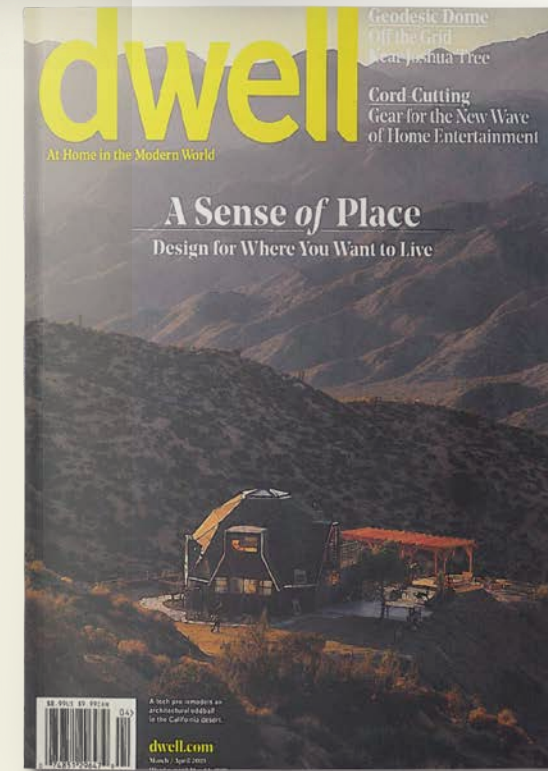
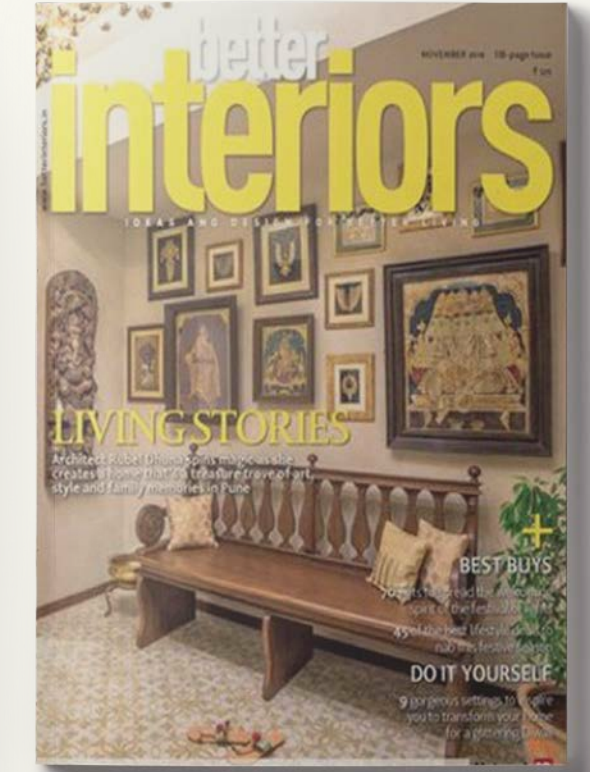
We are already communicating and delivering the idea of The Gourds to the end user, through the 100+ press hits they have received, including features in Dezeen, FastCompany and NowThis News. The industry is acknowledging CRÈME and The Gourd Project as a valuable solution for the ever growing issue of waste and creating a successful sustainable solution by reducing the environmental impact of plastic.





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The Gourds PRESS



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The Telegraph

dezeen

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