Portfolio

Lachlan Hope
Dining with The Future

Product Design
Edinburgh College of Art

Contents

What

Our world is changing in many aspects. Products, materials, and services are constantly being developed, scrutinised for improvements, all for the evolution of life. Within this sphere of change are biomaterials. What was once just a thing, is now being tested and picked apart to be part of our future lives.

Being developed as a sustainable alternative to synthetic materials, biomaterials can mimic the look and feel of what we know. However it can also embrace it's own natural aesthetic which can be perceived as 'gross' or 'icky'.

So how can we introduce biomaterials in a way that encourages acceptance and engagement before they become more prevalent in everyday life?

"A table is more than a piece of furniture, just as food is more than mere fuel"

"The comfort of the familiar combined with the exuberance of the new."

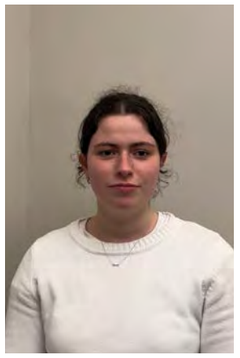
- Nigella Lawson

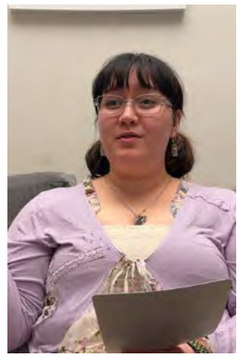
'Series 1: Episode 4' (2017) *Nigella: At My Table*, Series 1, Episode 4. BBC. Available at: BBC iPlayer [Accessed: 30 December 2024]

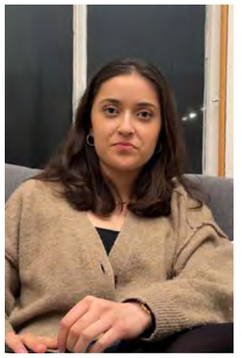
Who

This project is aimed at soon to-be and current young adults aged 16 to 29; the generation that will be most affected by global challenges such as climate change and shifting environmental policies. As industries strive to reduce their ecological footprint through initiatives like carbon neutrality and sustainable material development, this demographic will need to adapt to new ways of living.

However, change is often met with resistance, as people tend to be particular about their preferences and hesitant to embrace unfamiliar materials or practices. By engaging young adults early on, this project seeks to introduce biomaterials in a way that fosters acceptance, making sustainable alternatives feel less like a disruption and more like an opportunity for innovation.







Why

Society is deeply reliant on synthetic materials, from thin-film plastics to synthetic fibres like polyester, nylon, and rayon. While some can be recycled, many are discarded, contributing to environmental pollution. As the planet faces unprecedented challenges - ranging from climate change to resource depletion - companies are seeking sustainable alternatives to reduce their ecological footprint.

Biomaterials are emerging as a viable solution, offering a more sustainable approach to product design. However, public acceptance remains a significant barrier. People are often resistant to change, especially when new materials challenge their perceptions of cleanliness, durability, or aesthetics. With rapid global shifts - including the climate crisis and the rise of AI - adapting to new materials is not just beneficial but necessary. To create meaningful change, society must move beyond its comfort zone, embracing the unfamiliar without feeling overwhelmed. My project aims to facilitate this transition by introducing biomaterials in a way that encourages curiosity, acceptance, and long-term engagement.

“You have the comfort zone. You have the stress zone, and you don't want to put people in a stress zone. But you actually want to put people in a stretch zone. So you really want to stretch the people in such a way that they don't get stressed from it and still enjoy it.”

- Martin Kullik and Jouw Wijnsma

Jennifer Gray (2024) *ECA Jewellery and Silversmithing present: Tools for Consumption*. 19/02/24. Available at: https://bit.ly/3XAraBo [Accessed: 25 February 2025]

Where

‘The research looked at the association between eating together and happiness, community connection, and life satisfaction. Responses from the survey showed a strong connection between social eating and social bonding, to the point that “communal eating may have been evolved as a mechanism for humans to do just that.”’

Albright, M, B. (2023) *How eating with others nourishes us in more ways than one.* Available at: https://bit.ly/4k95RQu [Accessed: 28 March 2025]

Eating is more than just a necessity, just as a kitchen is more than just a workspace. Communal dining is a shared experience, a moment where people come together, not just to nourish themselves but to connect through a ritual that is both familiar and deeply human. It is one of the few activities that transcends cultures, uniting people in a common task that everyone can take part in.

Eating itself is an intimate act. It involves more than just consuming food - it’s an interaction between the body and an array of objects, from carefully prepared ingredients to the often sharp and rigid tools we use to navigate our meals. Food creates opportunities for people to pause, gather, and engage, carving out space in otherwise hectic schedules.

Food has always been a central part of my life. I love experiencing new flavours, discovering new textures, and expanding my palate. However, it is rare that the food I experience is something I can physically hold beyond the expected utensils. This realisation has shaped my curiosity, what if the act of eating extended beyond taste and into the materials that facilitate it? What if we rethought the objects we use at the dining table, introducing materials that are unfamiliar yet hold the potential to reshape our relationship with sustainability?

How

The initial motivation for this project stemmed from a simple question: How can natural material transformations challenge perceptions of cleanliness in the home? I was particularly interested in how natural patination methods could make domestic spaces feel less sterile by embracing organic change.

My early research led me to explore how this idea could be applied to glass, using it as a medium to visualise bacteria in the mouth. The statistics about bacteria in the human body were staggering, and I wanted to make this invisible world tangible. This, in turn, brought me back to metal patination - but at a larger scale. I developed the concept of a 'live table,' where natural acids and bacteria from food would visibly alter the surface over time, creating an evolving material response to daily use.

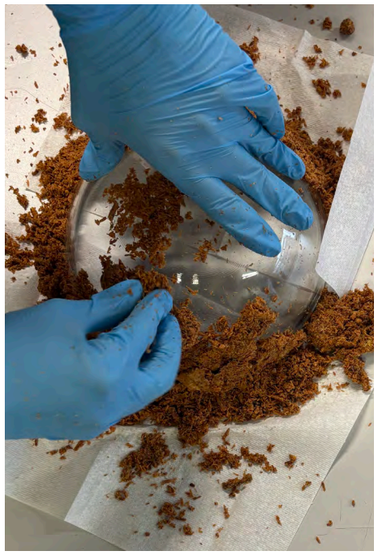
While these experiments were effective in revealing transformation, I wanted to engage more directly with biomaterials. This led me to work with SCOBY*, crafting a tablecloth designed to introduce bacteria into a space typically associated with cleanliness and calm. By intentionally placing these materials in a domestic setting, I aimed to provoke a conversation about how we define hygiene and comfort in our everyday environments.

*SCOBY: Symbiotic Culture of Bacteria & Yeast

At this stage, however, I found myself struggling with the direction of my project. While my research had been exploratory and wide-ranging, I felt the need for a clearer focus. This led me to re-evaluate my approach, shifting towards the sensory experience of materials and how they influence perception. Moving forward, I began to consider how bio-materials could be introduced to the general public, particularly young adults, to challenge instinctive reactions.

Following my initial prototypes, I wanted to further explore how biomaterials could provoke conversation. Feedback revealed that while the concept was intriguing, many were hesitant to touch or interact with the materials due to feelings of disgust.

This response led me to reconsider my material choices. SCOBY, while conceptually rich, proved too fragile and impractical for repeated use. I turned instead to mycelium, which offered more structure and stability. Its root network allows it to grow into defined shapes, making it more suitable for tactile objects. The kit I used - a blend of Reishi (a species of mushroom and Beech sawdust - produced a firm, sculptural



bowl with an earthy, unfamiliar texture.

Still, the reaction remained the same - people were reluctant to touch the object. This recurring response highlighted the need for a new approach. Rather than simply presenting biomaterials, I shifted my focus to designing an intervention that would encourage engagement, challenge perception, and frame disgust as a starting point for curiosity.

What is mycelium?
The vegetative part of a fungus, consisting of a network of fine white filaments (hyphae)

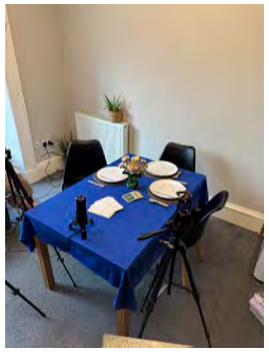
Solidifying Fungi

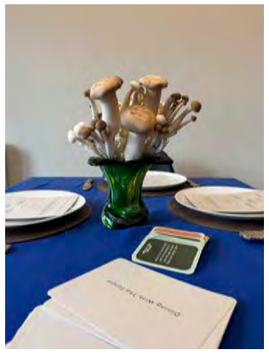
To give mycelium a permanent physical form, I cast the original fungal cutlery in bronze. This process preserved its unique texture while offering a new level of durability.

The contrast - between mycelium's softness and bronze's strength - became symbolic of the project itself: old materials, new meaning.

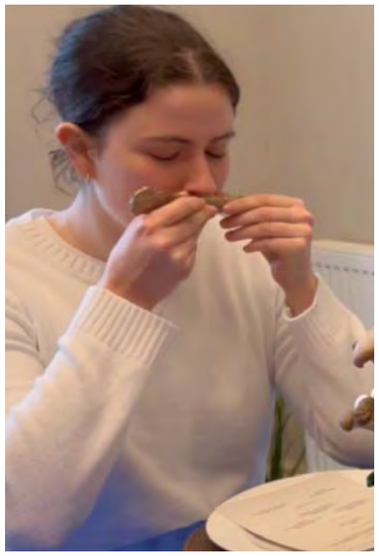
Dining With The Future

This filmed dining experience reimagines the traditional dinner table as a space for experimentation, conversation, and critique. Set in a familiar domestic environment, the intervention brought together a small group of young adults for a curated meal.
Inspired by *Come Dine With Me*, the format used humour and casual commentary to put guests at ease while inviting them to reflect on how comfort and disgust shape our acceptance of new materials. The event featured a mushroom-themed menu, playful interaction, and cutlery cast in bronze from mycelium.





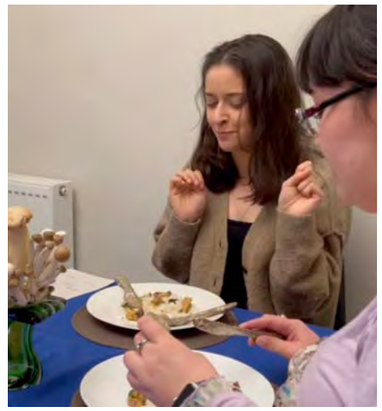
A Familiar Scene, a Strange Twist



Guests were welcomed into a cosy dining space - familiar in layout, unusual in material

Cutlery cast in bronze from mycelium confused expectations: solid, but rooted in something soft and fungal.

Food created a shared rhythm - something familiar to anchor the strangeness of the materials. Between bites, the conversation shifted from flavour to texture, from curiosity to confrontation.



Disgust, Laughter, Curiosity

To record guest responses, each participant filled out scorecards rating:

Texture Appeal
Does it feel nice or off-putting?

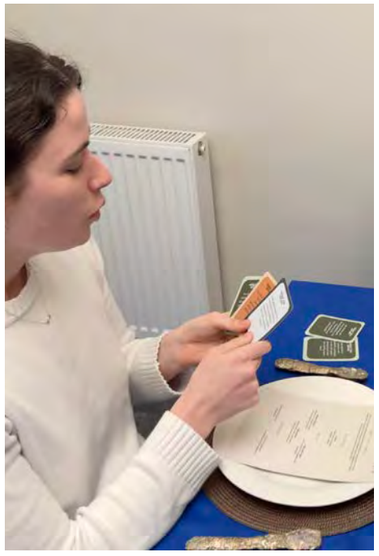
Practicality
Did it affect how they ate?

Overall Experience
Would they use it again?

These scorecards helped capture not just surface-level opinions, but emotional responses. They revealed a journey from uncertainty to acceptance - and sometimes even enjoyment.

They also answered *Would You Rather* cards designed to generate discussion around unfamiliar materials. These questions, both absurd and serious, pushed them into the “stretch zone” - beyond comfort, but not into panic.

These lighthearted prompts sparked deeper discussions about future living, sustainability, and what we’re really willing to accept.



From Fungi to Forever

I began by exploring material disgust and organic transformation in the home.

I designed an immersive dinner experience to challenge perceptions of hygiene, comfort, and sustainability.

Participants moved from rejection to intrigue, engaging in meaningful dialogue around future materials.

When you balance provocation with empathy, design becomes not just a product - but a prompt.

The future will be strange - but with the right tools, it can feel familiar.

Let’s learn to enjoy it.

About me

My name is Lachlan and I have finished gaining a degree in Product Design at the University of Edinburgh.

I am a sensory-driven, materials-led designer who uses playful provocation to spark emotional and behavioural reflection.
I approach design as a tool for shifting perspectives - especially around sustainability - by crafting tactile experiences that invite curiosity and conversation.

My work sits between product, experience, and speculative design, grounded in emotional storytelling and material exploration.

I do not just making things to be used, I make things to be felt, questioned, and remembered.

@lachlanhopedesign

lachlanhope.co.uk

https://www.linkedin.com/in/lachlan-hope