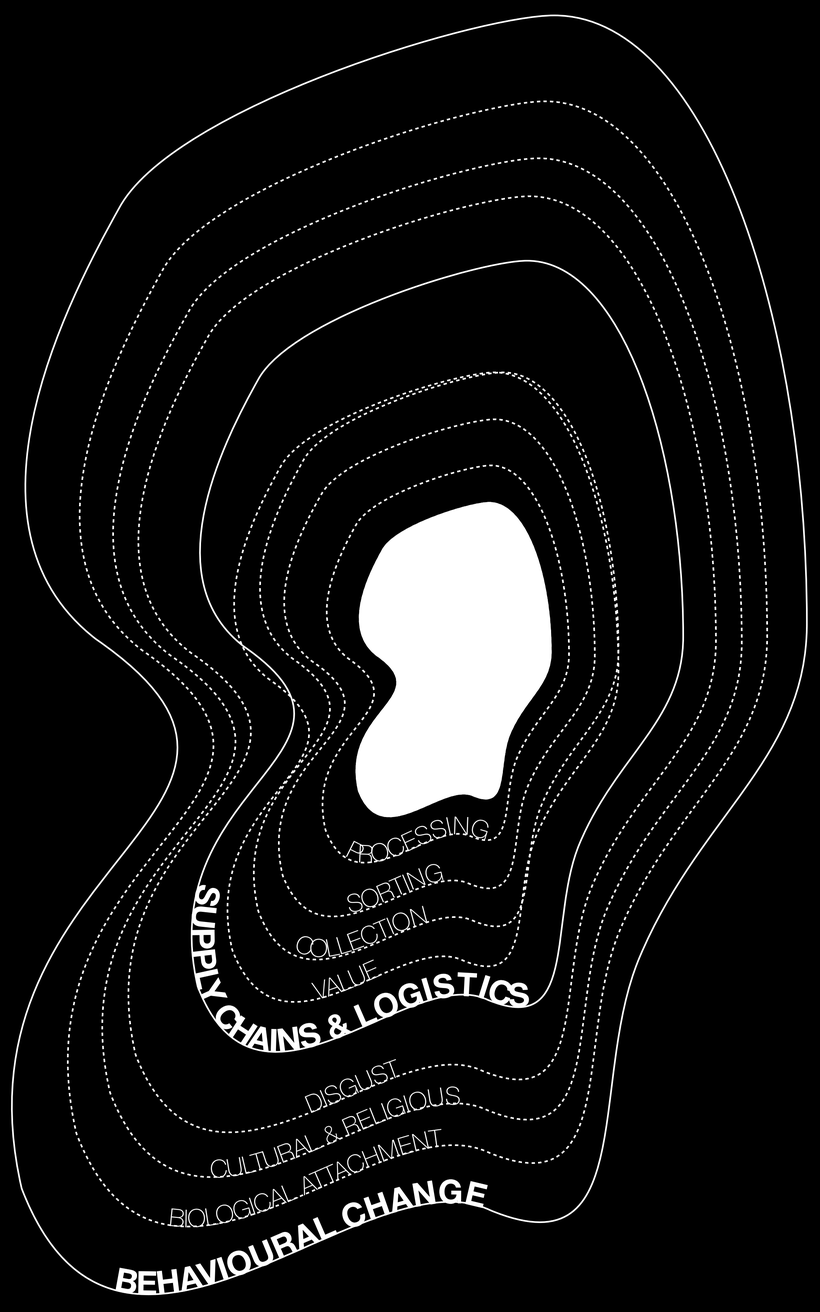
DISGUST TO DESIRE: THE SOCIAL FUTURE OF HUMAN HAIR

Douce de Boisgelin is a multidisciplinary designer and researcher bridging design and science to imagine and cultivate regenerative futures. Her work spans speculative design, material innovation, and systems change, using design both as a critical lens and as a tool for real-world impact. By interrogating cognitive dissonance around feasible and viable solutions, she explores how design can challenge assumptions, foster acceptance, and drive transformative change across disciplines.

The UK's **45,000+** hair salons and barbershops generate enough hair waste every single day to fill **50 lorries.**

The average person loses **50** to **100 strands** of hair **per day** as part of their natural growth cycle.

Europe alone sends over **72 million kilograms** of human hair to landfill every year.



What if Human Hair was treated as a valuable resource rather than a waste stream?

Every day, up to **100 strands of hair fall from each head**—amounting to millions of kilograms of human hair discarded annually. Yet, this overlooked waste stream is a source of untapped potential. Human hair can **clean oil spills**, **fertilise crops** with its **nitrogen-rich composition**, **insulate buildings**, and in recent breakthroughs, even be transformed into **graphite for energy storage**. The possibilities span **construction, agriculture, medicine**, **textiles**, and beyond. Despite this, we treat hair as a **mere biological accessory**, lavishing over **£1,200 a year per person in the UK** on products, treatments, and styling, only to recoil in **disgust the moment it sheds**. In Europe alone, over **72 million kilograms** of hair end up in landfill each year, while industries scramble for sustainable, high-performance materials.

This project confronts the paradox: **Why is hair, so valued on our heads, instantly devalued once it falls?** Research reveals **two critical barriers to change**: **deep-seated social perceptions** (disgust, identity, and cultural taboos) and the **absence of robust supply chains.** Today, **less than 1.5% of hair waste is recovered for reuse.** To reach a future where **15% of hair waste is repurposed by 2050**, we must reimagine both our attitudes and our infrastructure.

Pioneers like **Green Salon Collective**, **Human Material Loop,** and **HairCycle** are already proving what's possible. The challenge now is to scale up, shift mindsets, building networks, and designing systems that turn every strand into a catalyst for regeneration. The future of sustainable materials is growing on our heads. Why are we looking elsewhere?

~1.5%
of Hair is **CURRENTLY** recovered from salons around the UK

2025

Information Sharing & Network Creation

Creating spaces and knowledge hubs where hair's material potential is shared widely. Activating primary stakeholders like eco-conscious salons, designers, and scientists to build a core community of believers.

2028

Local Success & Visible Proof

Well-documented local incidents (e.g., a diesel spill in a local canal) demonstrate the material's effectiveness. Tangible success stories that build trust with the public and key regional stakeholders like river trusts and local media.

2030

Value-Driven Collection & Source Separation

Salons equipped KeraPods, allowing direct hair sorting in grade (e.g., virgin, coloured, short/treated). A value-based, tiered payment system, rewarding salons for providing clean, high-grade material.

2035

Mainstream Endorsement & Narrative Shift

Partnerships with major national environmental bodies, features in mainstream media, shift the narrative from a "quirky idea" to a "serious environmental solution," granting it widespread legitimacy.

Domestic Market Rollout

Building on the salon network's success, domestic KeraPod kits are introduced. Households convert loose hair into valuable KeraSpools, trading them for credit at local collection hubs and massively expanding the raw material supply chain.

2040

Community Ownership & Lifestyle changes

Program is framed as a form of national resilience and community action. Hair dyeing is becoming bad practice and much greater consciousness towards using hair products with no chemicals.

Hair Mail Collection Service Launch

Just like recycling your glass bottles is socially normative today, hair mail collection is now provided in every borough of London. Domestic collection and creation of KeraSpools has streamlined the collection service with a low Carbon footprint.

2045

Normalisation & Cultural Embedding

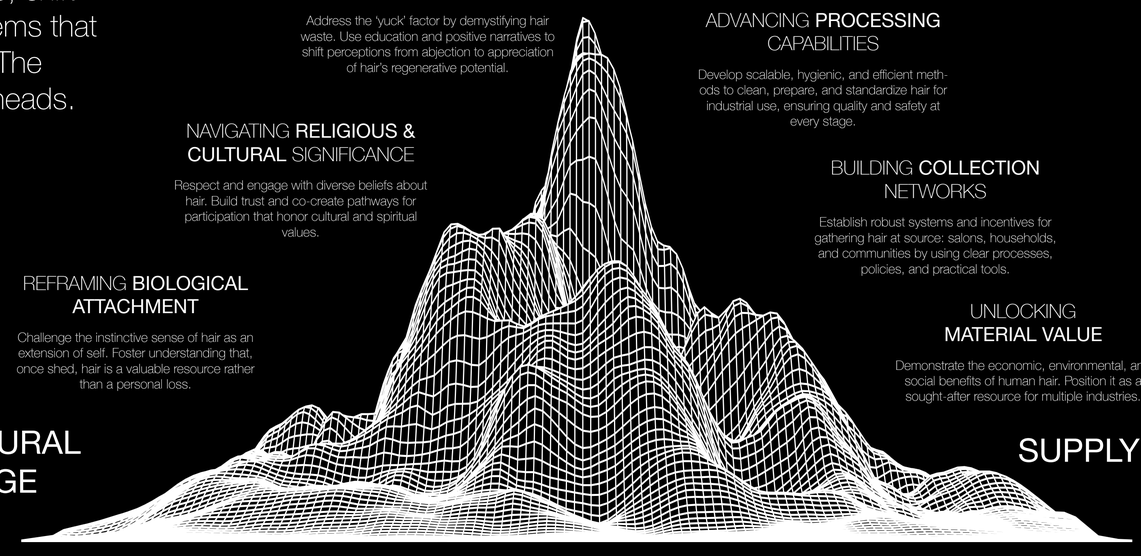
Full integration. The act of binning hair is now viewed by the public and the industry as socially unacceptable and wasteful, akin to throwing glass bottles or batteries in the general waste bin. The desired behaviour is now a cultural norm.

Hair Quality Control

After seeing how many applications hair has and the growing demand for different industries, Hair brushes are made to analyse the quality and nutrient content of hair to enable adoption for regenerative practice like fertilisers on large scale.

15%
of Hair recovered from salons and homes around the UK by

2050



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2050 Vision, Adoption Rate, Agriculture, Architecture, **Behavioural Change**, **Biological Attachment**, Biomaterial, Circular Economy, **Collection Systems**, Community Engagement, Cultural Perceptions, Decentralised Resource, **Disgust Factor**, Energy Storage, Environmental Impact, Fashion, Fertiliser, Graphite, Grassroots Innovation, **Green Salon Collective**, **Hair Mail**, **HairCycle**, **HairOS**, Human Hair, **Human Material Loop**, Industry Applications, Innovation, Insulation, **KeraPod**, **KeraSpool**, **Keratin**, Material Sourcing, Medical Industry, Nitrogen, **Oil Spill Cleanup**, Policy, Processing, **Regenerative Material**, Resource Recovery, **Social Acceptance**, Sorting, **Supply Chain**, Sustainability, Technology, Textiles, Up-cycling, Waste Stream.