



From Fashion Graveyard to Green: Reimagining Apparel Waste through Design and Emotion

“ It concluded that we break up. I ended up in a trash bin. Moved, discarded in a graveyard. My lushness faded. No one heard. I was craving to be back. ”

— White linen boyfriend shirt

The global fashion industry is often critiqued for its unsustainable practices, particularly the linear “take-make-dispose” system. In Sri Lanka, the consequences of this model are visible in growing textile landfills, mounting post-consumer waste, and a lack of structured recycling or reuse mechanisms. Against this backdrop, the Fashion Graveyard to Green project, led by researchers at the University of Moratuwa (UoM), emerges as a bold and timely initiative. The project explores how discarded garments—often considered waste—can

be transformed through design thinking, giving them new life and meaning.

Sri Lanka's Apparel Waste Crisis

Post-consumer apparel in Sri Lanka poses a major environmental challenge. Vast quantities of clothing are discarded annually without being noticed, destined for landfills with little infrastructure for textile recovery. While sustainable fashion narratives often focus on “designing to disappear,” the

ground reality reflects a need to “design for reappearance”—to view waste as a resource and re-think disposal as transformation. This issue is not only ecological but cultural, prompting questions around value, identity, and the lifespan of fashion.

The project: Fashion Graveyard to Green

This project is a creative practice-led study conducted by Dr. Sumith Gopura, Dr. Ayesha Wickramasinghe, and Mr. Kavindu Dharmakeerthi (Research Assistant), under the Department of Textile and Apparel Engineering, UoM. Supported by the University Senate Research Committee Grant and the Waste Management Authority Western Province, the study aims to map the ecosystem of post-consumer apparel in Sri Lanka while developing practical design solutions to divert garments from landfills.

The project employs a practice-led approach. Researchers visit major garbage disposal sites such as Karadiyana “Mihisaru” Waste Management Center to trace the lifecycle of discarded garments - those that end up in landfill, those sold in second-hand markets, and those informally repurposed. By analyzing these pathways, the team identifies intervention points where creative and emotional redesign can revive the garment's usability and extend its life.

Case Study 1:

The White Linen Boyfriend Shirt

The white linen boyfriend shirt (above Figure 1 Op. 1), one of the garments retrieved from a landfill, became a symbolic starting point. Its transformation was not just physical - it was conceptual. Once discarded and faded, the shirt was washed, disinfected and reimagined through the lens of emotional design and storytelling. By personifying the shirt in the quote above, the project explores a deeper narrative: fashion items carry memories, identities, and histories. The reconstructed shirt retained its original texture and breathable qualities while being reshaped with a modern, gender-neutral aesthetic. Its rebirth was not about restoring what was lost, but about creating something entirely new—rooted in past use, yet relevant for today.



Figure 1:

Op 1. Men's shirt picked from the Karadiyana “Mihisaru” Waste Management site (in the background) turned into women's top.

Op. 2. Image: Jogger pant picked from the Karadiyana “Mihisaru” Waste Management site (in the background) turned into skirt that can be adjusted to mini-midi-maxi lengths.

Case Study 2:

The Red-Hot Comfy Skirt

Another striking example of design transformation is the Red-Hot Comfy Skirt (above Figure 1 Op. 2), originally a discarded pair of joggers. Through innovative reuse of every original component, including the waistband and fabric panels, the garment was revived with a vibrant new identity. The elasticated hem allows for adjustable lengths—mini, midi, or full—while the relaxed fit ensures broad wearability. This piece showcases how sustainable design does not compromise on aesthetics or comfort. The skirt exemplifies the project's ethos of “no discard again”, embodying environmental mindfulness and emotional resonance. More than upcycling, this is a deliberate effort to disrupt the linear lifecycle of garments and embed circular values in everyday wear.

Innovation and Impact

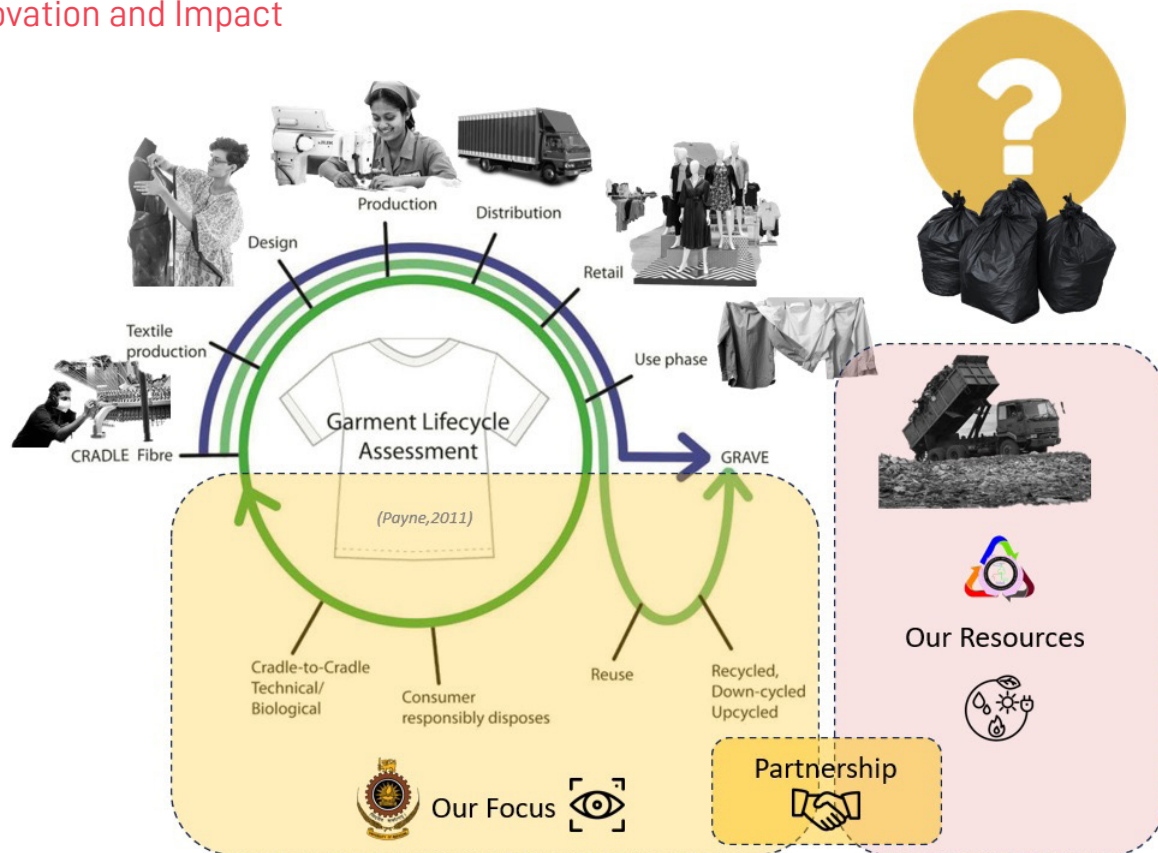


Figure 2: Scope of the fashion graveyard to green study, adapted from Garment Lifecycle Assessment by Payne (2011)



Figure 3: Model (Methmini Dasanayake - undergraduate BDesign, UoM) wearing Garments developed from the dumped samples picked from the Karadiyana "Mihisaru" Waste Management site (in the background), Western province.

What sets Fashion Graveyard to Green apart is its fusion of research, sustainability, and storytelling. This is not just about reuse—it's about rethinking fashion's role in society through collaboration (Figure 2). By applying design thinking to waste, the team develops emotionally durable garments that challenge fast fashion norms. The project also questions how consumers engage with clothing—can garments be cherished longer if their stories are heard?

Moreover, the initiative provides a model for university-led impact research, where academic work translates into tangible solutions for national issues like waste management, circular economies, and environmental education.

Next Steps

The research team plans to expand the project by:

- Mapping more landfill sites across the country to understand apparel landfill eco-system through a broader study.
- Collaborating with local designers and artisans to diversify the transformed garments.
- Digitally documenting garment journeys to raise awareness and engage communities.
- Publishing findings to influence national policy on fashion waste and sustainability.

The ultimate goal is to create a circular fashion ecosystem in Sri Lanka where no garment is seen as obsolete, and every discard holds the potential for rebirth.

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