

## The behaviour of matter and matters of behaviour

Through the prism and topic of waste - we explore creative interventions, counter-cultures and design innovations in response to a wasteful material society.

A BA/Mdes (Hons) 3D Design and Craft, BA (Hons) Design Futures and MA Sustainable Design reduction

<https://www.facebook.com/groups/607658439342000/>

### **Matters Project 1 – Stage 1 (Autumn 2014) – initial report.**

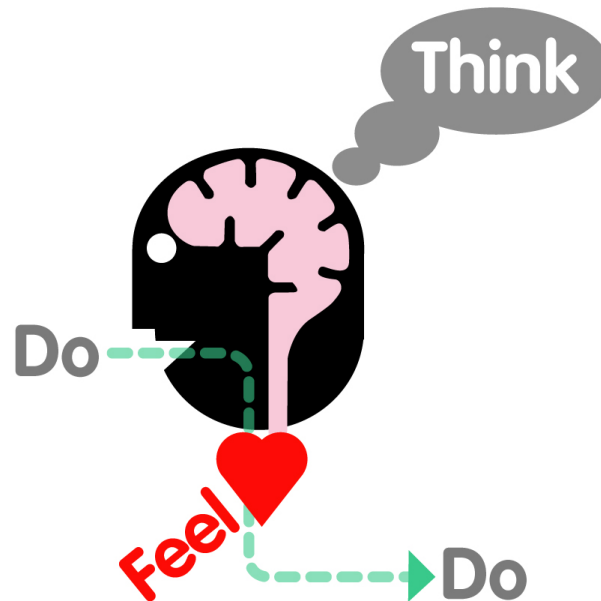
*Through the 'prism' and topic of 'waste' we explore design interventions, counter-cultures and creative innovations that respond to a profligate society.*

The 'Matters' project is an ongoing critical, creative studio project involving a collaborative group of staff and UG and PG student designers and makers as researchers of issues of waste. Students have responded to one or both of these material and / or behavioral perspectives to resourcefully utilize materials currently labeled as waste and provide interventions to behaviour that help prevent waste or make innovative use of it. The project was developed in partnership with, and through the kind support of The **Veolia Innovation team** as one of the worlds largest **resource management** companies.

### **The context:**

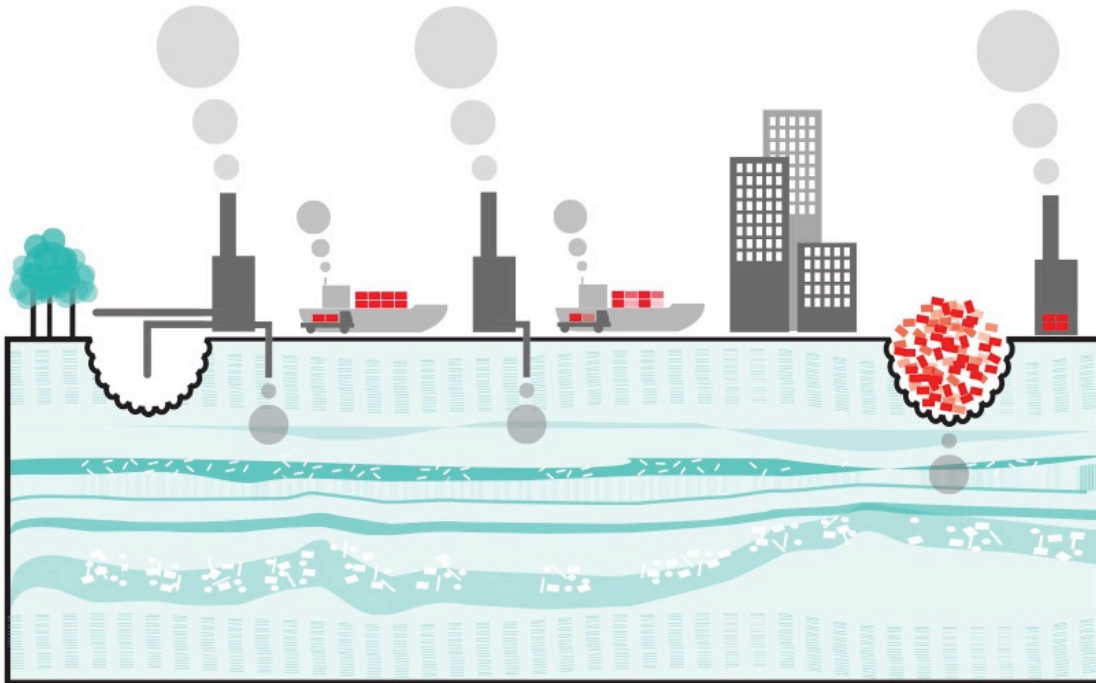
Participants in seminar and workshop sessions throughout the project were presented with complimentary but divergent interpretations of, and approaches to, the topic of waste. **Nick Gant and Tanya Dean** championed the role of the inherent, 'extractable' and exploitable histories and narratives embodied in 'waste' or used materials – which when utilized and applied according to their theories and methods can imbue products with significance and elevated 'value'. **Jonathan Chapman** posed mountains of waste as a symptom of failed interactions between products and users and proposed alternative methods for enhanced material exchanges between subjects and objects. Previous work from **3D Design** students demonstrated a unique, pioneering and innovative body of work that simultaneously exploits both the physical attributes of waste and their

constructed, cultural meanings and language within product design. **Carlos Peralta** schematized our engagement with material stuff, asking students to critically and objectively map journeys of *experience* in pursuit of windows of opportunity for intervention. And **Damon Taylor** engaged and enlightened *Matters participants* in the emergence of 'kibble', the *stuff* that clutters and pollutes our lives as a self-inflicted manifestation of identified and debated human disorders.



Waste is a consequence of what we **think, feel and do**. (Matters 2014).

**Cat Fletcher** evangelized about the role of design as a tool for 'activation' and how social and material networks that Brighton University is helping facilitate and pioneer can move us closer to efficiencies and opportunities of sustainable, environmental and economic resourcefulness. **Adam Fairweather** as a 3D Design graduate and MD of one of the early pioneering material recycling companies narrated a story of innovation based on his undergraduate design work that is leading to the development of new companies and manufacturing in the waste resource industry in the UK and beyond. **Ryan Woodard** and **Julie Angulo** both engaged with the notion of the circular economy, delivering the hard facts in numbers and images – the desperate and disparate status of materials in different economies and cultures, the value systems associated to materials and the economic, social and environmental consequence of mis-management were all opened for debate. Julie introduced participants to the commercial and cognitive shift in the management of *resources* as opposed to the management of *waste* and how The Matters Project at Brighton can help facilitate this paradigm shift with one of the world's largest companies working within this new era.



The project questioned where design interventions could both divert waste in the linear waste scenario and could facilitate a circular model.

The project formed a *smorgasbord* of common and niche waste materials presented by Veolia – each material a byproduct of consumer society and retail production and product manufacture, now seen as base, feed-stock *ingredients* for new design compositions. Materials included **coffee chaff** from large-scale production and retailing of coffee, various plastics from **drinks and bag production**, **conveyor belts** from high turnover **logistics** companies, **leather** off-cuts from luxury **automobile manufacture** and materials from **dismantled airliners**, mixed plastics in **dust, granulate and flake** form from a range of **mass manufactured products**. Of particular interest is a new innovation developed by Veolia called ‘**Pro-fibre**’, a paper based, ‘clean’, crumb material reconstituted from contaminated paper packaging – materials which are currently condemned to landfill or incineration.

### Research questions and process:

Staff and students continued the pursuit of new insights in the resourceful use of waste materials in individual ways - but common enquiries investigated the new attributes and applications that can be developed for the specified waste materials whilst diverting them from a *dead-end* journey. Equally exploration of how recovered resources can be utilized as mediators in contrived object and user dialogues and communications. What opportunities for intervention are fostered for intervening in wasteful cycles of use by

mapping user experiences of material interactions?

Staff and students engaged in the narrative construction, authoring new material language that aimed to overcome the simplification and limitation of the terms *re-use and recycling*. Identifying the nuance and sophistication of process enables a new glossary and lexicon of material design language that mediates the collective research, innovation and practice within the diverse context of waste.

### **Project Brief:**

Design and Craft and Design Futures students, Level 6 Design and Craft students and MA Sustainable Design students. We will literally build a new studio environment as an active process and manifestation of the project as a team activity.

The project was separated into phases to ensure we engage with the different elements of the topic and research in teams initially. These phases should then inform your individual elements. The overarching brief for all participants is simple: Design and develop an object, product or service that exploits the behavior of waste matter and / or that addresses matters of behavior (relating to waste).

### **Summarized / Highlight Initial Findings:**

Students and staff identified a range of potential material developments and applications for the different categorised materials that Veolia identified for creative research (see example images below). In particular the 'pro-fibre' has scope for further development as a unique material innovation. When composed with a range of organic or synthetic, but water based binders it has structural potential for a range of applications (product, packaging, furniture and buildings). Considering the short period for study and development (approx 12 – 14 days), many of the industrial materials reworked provided quite developed, marketable aesthetic qualities and some projects lead to full product proposals for furniture, products and packaging.

**Comments from Veolia:** (Julie if you could provide some commentary / feedback that would be great) we will be circulating this internally to management at the school level.

### **Possible next steps in brief (TBC):**

- undertake some further experimentation using 'pro-fibre' according to personal or group research and creative directions and/or applications.
- develop some model, sample and prototype developments for use in the Veolia innovation lounge and to display at Eco-build.

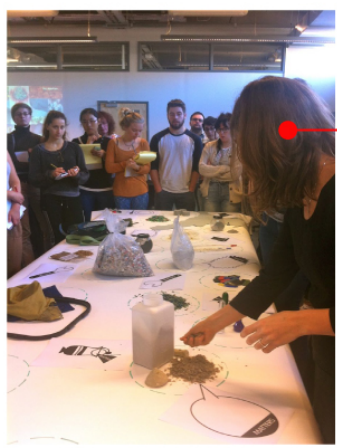
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The 'Matters' project - Inassociation with



Project has been led by Nick Gant, Tanya Dean, Gareth Neal and Dr Carlos Peralta  
We would like to thank the following for their additional input.

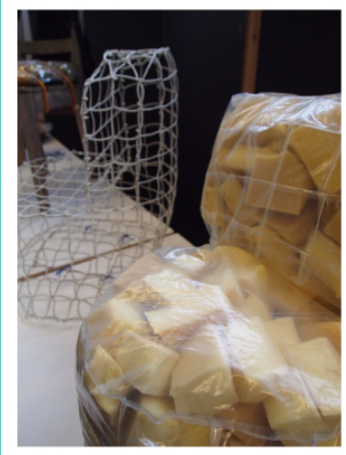
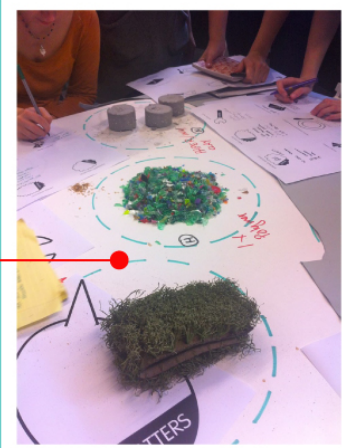
- Julie Angulo – Head of Innovation, Veolia
- Fanny Lenglet – Innovation team , Veolia
- Adam Fairweather – MD of Smile Plastics and Reworked
- Thomas Thwaites – Designer / originator of 'The Toaster Project'
- Dr Ryan Woodard - lead of Waste Recycling Research Group
- Cat Fletcher - Waste-house / Freegle
- Dr Jonathan Chapman - Professor of Sustainable Design
- Dr Damon Taylor – Senior Lecturer in Design Theory
- Dr Jyri Kurmick and Dr Tom Ainsworth – Idea project



Head of Innovation at Veolia Julie Angulo presents the materials

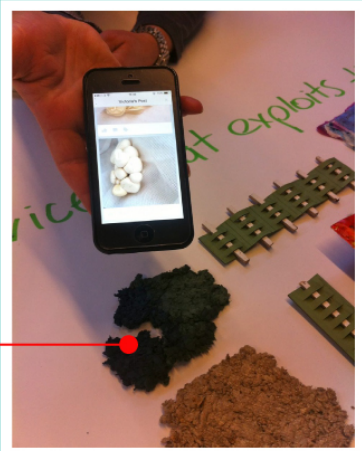
Astro turf, compressed paper and PETG flake

Stage 1 material experiments week 5



Students engage with the 'Sole Searching' shoes, materials and design methods and participate in 'material meanings' survey

Stage 1 material experiments week 5

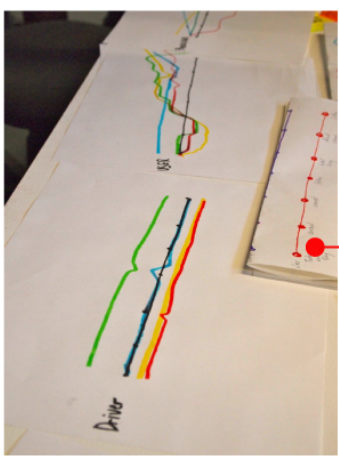




Students from Brighton and Israel discuss 'Matters'

Under graduate and post graduate students map the journey of product experiences

'Social Matters' evening at Silo Brighton (zero waste policy restaurant)



'Experience Matters' seminar

Mapping material experiences



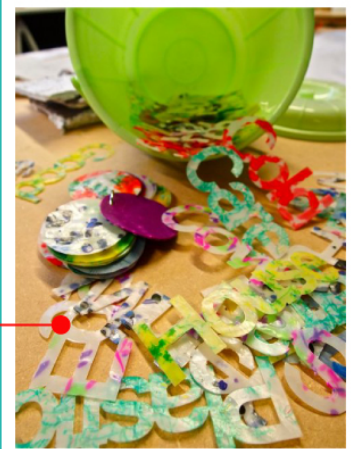
Examples of Stage 1 findings



'Profibre' - stool utilising water based binder for multi-piece moulding (Harry Manear BA 3D)

Educational game spelling out the origins of the materials. (Becca Hughes BA 3D)

Efficient / recycled cardboard packaging for apple portable products (Helen Jones BA 3D)

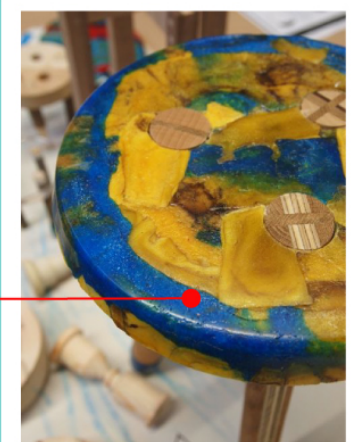


Compressed and dyed 'paper-ply' from office waste (Jack Scott BA 3D)

Point of sale device for 'Mooncup'sanatory products (Tyla Jarrett 3D BA)

Heat press formed polystyrene (Syd Foster BA 3D)

'Profibre' laminated / constructed with play and polished (Julia Zhu 3D BA)

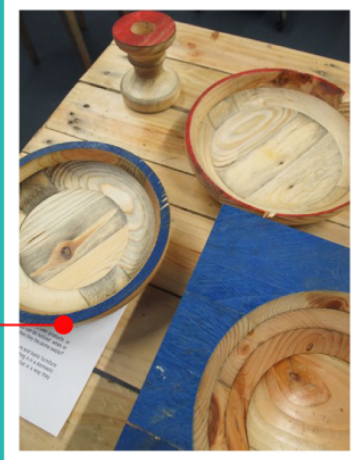




Examples of Stage 1 findings

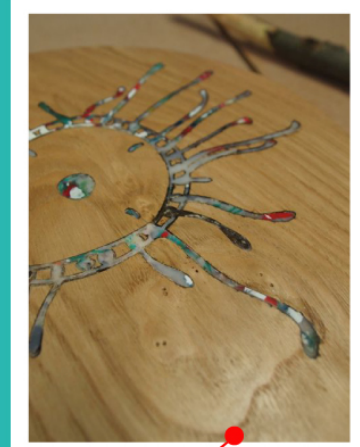


Stool made from recycled catering supply hose and coffee 'chaff' (by product from coffee production) Matilda Grover (BA 3D)



Palette wood products designed for 'Silo' restaurant (project partner). Tim

Collapsible picnic table made from off cuts from luxury car manufacture (Evan BA 3D)



Recycled PETG marquetry (Tyla Jarrett 3D BA)

Richard Maloney presenting his portable carrier bag loom and press prototype to the Veolia innovation team

'Design-Lab' space - third floor Grand Parade

