

How to effectively engage student's with environmentally sustainable product design?

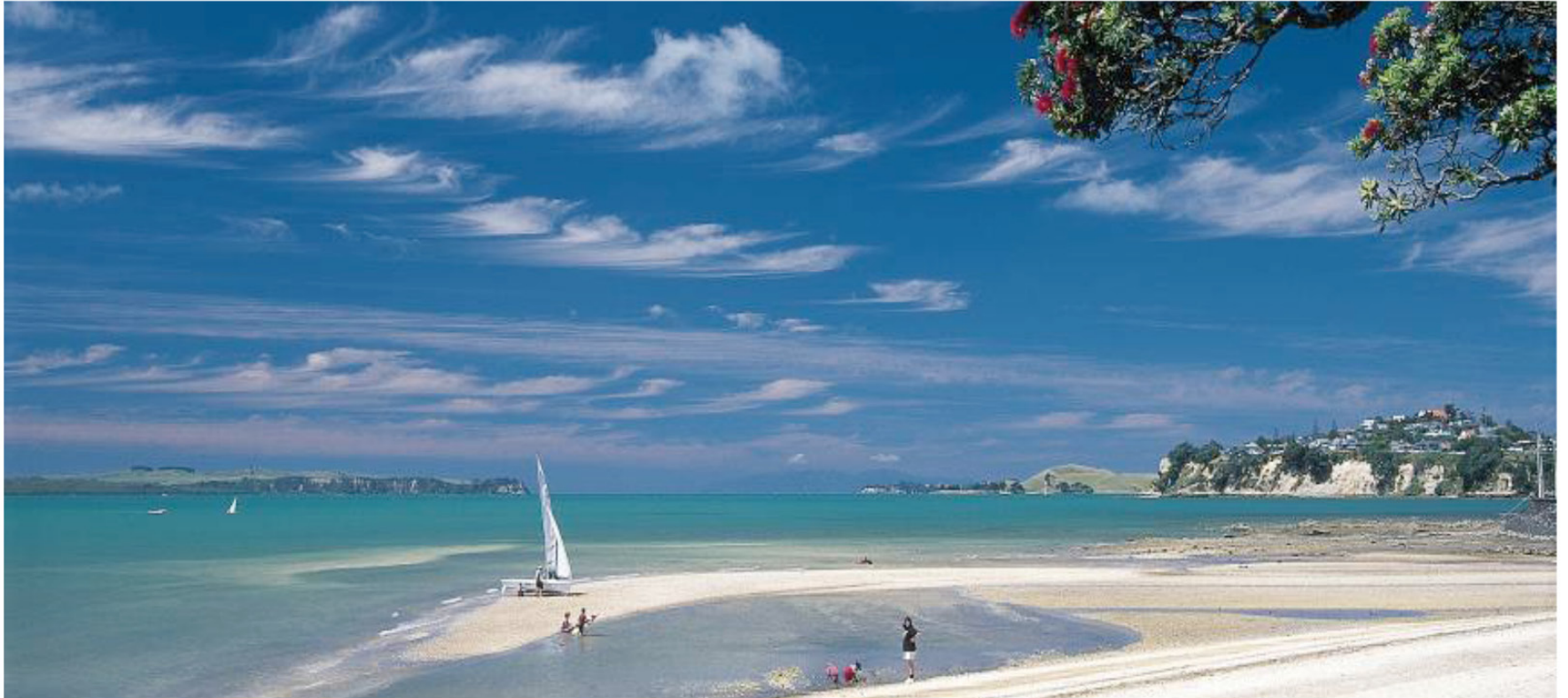
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school of Art +  
design  
AUT

'The transition towards sustainability, in its everyday dimension, can be described as follows: in a short period billions of people must redefine their life projects'

Manzini & Jegou, 2006.

This transition not only presents a huge challenge for product designers but also provides opportunity for designers to reframe their practices and processes.

What does this mean for design programmes?



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## Product Design at AUT

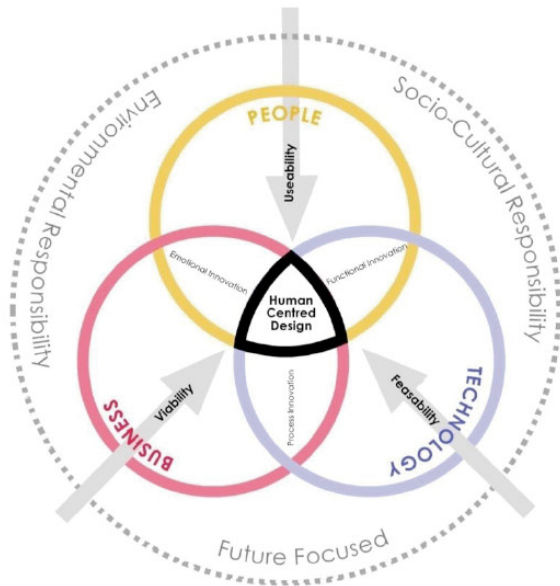
New major in BDes – launched in 2008

70 undergraduate students – 5 postgraduate students

Small team of staff – with a mixture of backgrounds

Great studio spaces!

Bedding in programme



Programme is structured around positioning design at the interface between a deep understanding of

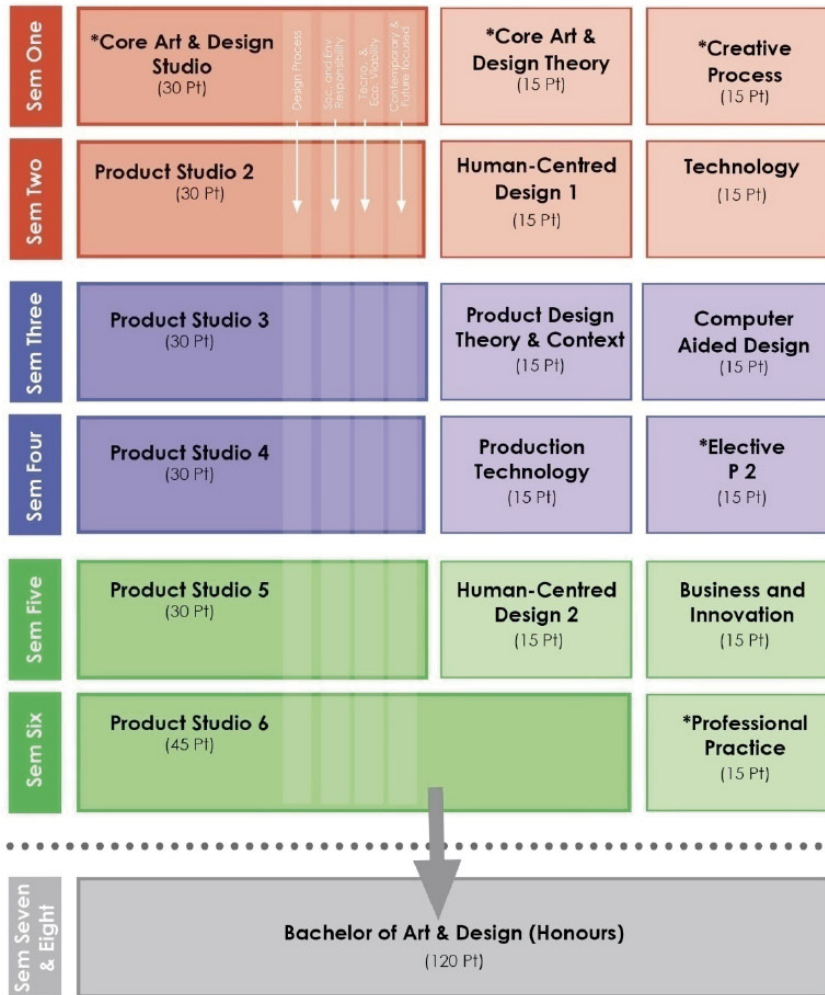
**People** (physiology, ergonomics, psychology, human behaviour etc.)

**Technology** (materials, manufacturing processes, high and low technologies, mechanics, engineering, product development etc.)

**Business** (marketing, consumer behaviour, IP, commercialisation, business processes etc.)

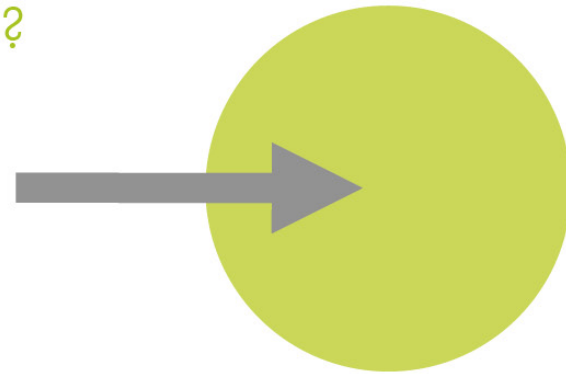
These areas becomes the drivers for the creative process. People i.e.

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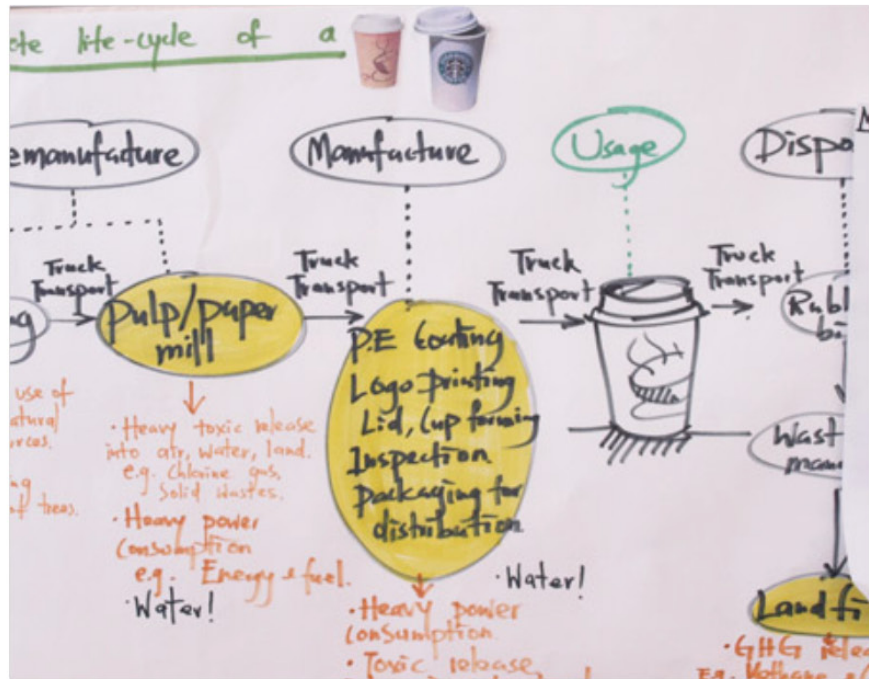
How do we engage with these issues?





## Everyday Interventions Project

Introduction to Sustainability – Social/Environmental  
Introduction to sustainable design frameworks  
Observation of ‘unsustainable behaviors’  
Identify parameters  
Design process  
Product – Service - System



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# The solution

Exploring a potential **new life** for every single paper coffee cup and presenting each idea of **new life** on the cup to the user.

The conventional use and disposal of a paper coffee cup is a great example of the unsustainable behaviour problem that we all have today. The fact that we have developed such behaviour can be blamed through the design of the product, as it is made to be disposed after a short cup of coffee. My solution to this problem is a series of small reuse ideas which will provide a potential new life for the product. Instead presenting with conventional coffee logos and advertisements, each cup is advertised with an idea of how it can be reused after the hot content has been finished. The ideas are communicated through friendly and readable graphics on the cup itself, and have dotted cut-out parts for easy assembly. So far 7 different cup designs are presented in this project, each with a secondary purpose that fully functions. But I believe that's not the end as there are many other unexplored creative ways in which a paper coffee cup can be reused, so on top of all there should always be a plain white cup with nothing on it to provide coffee drinkers a chance of design and create their own unique reuse to keep the cup, which makes the solution more practical and interactive.



## The Paper Coffee Cup Issue

The majority of takeaway coffee we buy today tend to be contained in a small paper coffee cup topped with a polystyrene lid, its function and aesthetic has proven itself to be very convenient and user-friendly within our busy modern lifestyle. However, the heavy and careless usage of coffee cups has certainly been unsustainable and has taken its impact on our environment. With every cup of takeaway coffee the cost is far more than the money we pay, as with the manufacturing trees are cut down, oil, water, and chemicals are used, toxic wastes are released into the environment, and after staying 10 - 15 minutes in our hand, it immediately becomes an unwanted object, the cups eventually end up in landfill sites along with all the other rubbish we've created, and like every other landfill rubbish it then began to decompose, which releases the powerful heat trapping green house gas into the air.

5000 paper coffee cups are thrown away every school day at the University of Washington. (Estimated by the Housing and Food Services Department U.S.)



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Naivety of students about world issues  
Enthusiasm – and interest from students  
the 'ECO' book mentality  
The opportunity for 'Affective' Teaching and Learning  
Lack of strategic approach at AUT product Design

## REFLECTIONS



<http://www2.warwick.ac.uk/newsandevents/pressreleases/ne100000097300/>

# REFLECTIONS

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Strategies in Engaging Students in Sustainable Design  
Engaging in a more meaningful way Engaging with  
undergrads – ‘affective teaching’  
Driving with postgrads – a serious commitment  
Staff Research

MOVING  
FORWARD

Environment

Society

Economy

## 1. Building Understanding, Knowledge and Capability

Bringing in qualified staff

Staff qualifications

Discussions - roundtable

Collaborating up with other staff at University

Beginning to teach.....

Environment

Society

Economy

## 2. Strategically Embedding in Programme

Programme Commitment – all projects underpinned  
Staged introduction by year level

Year 1. Introduction to the basic issues – simple life-cycle thinking – impacts of decisions – eco literacy

Year 2. Introduction to basic sustainability theories – workshops idea – more sophisticated projects

Year 3. For those who embody and embrace – holistic (major project)

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Post Graduate. Fundamental to those who undertake - activists



### 3. Challenge Students and Raise Profile

Environment

Society

Economy

## 4. Engaging a Multi-Disciplinary Approach

Engaging with Business, Engineering and School of Natural Science

Talking Department of Conservation

Talking with Biological Science Research Centres

Environment

Society

Economy

## 5. Current Postgraduates

Review of LCA use by designers in SME's  
Sustainable furniture  
'Shared' products in public spaces  
Sustainable surfboard manufacturing  
Domestic apartment waste management

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