

# Designing research for and about, design

Lecture: Industrial Design 3<sup>rd</sup> year Students

Date: 26<sup>th</sup> August 2005, 10am

Venue: UWS – BBg39

Slide 1: *Designing research for and about, design*

For those of you who have chosen to turn up I thank you ...

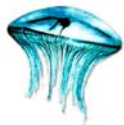
You are my fellow students...and I thank you for sparing me your time to be here this morning.

For those of you who don't know me ...my name is Ian Coxon.. you may remember me from such exciting subjects as Sustainable design 1 or its even more popular sequel Sustainable design 2

....Is there anyone here that I have taught before?

2 years ago I was sitting where you are. I was an UWS Industrial Design student just like you (but much older) ...I finished my honors year in 2002 and graduated in April 2003. ..and lot has happened since then..and today I will take you through a bit of my journey over the last two years and how it relates to design / slash / design research

**Slide 2**



Why does a jelly fish not get sunburned?

Well ....that was the question that I used to open my honors thesis presentation back in 2002. My topic then...was not about jelly fish per se' ....but about the phenomenon of scooter riding in Sydney, Australia.

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In 2000 during the olympics ...and while Uni was on holidays ...I went on a holiday with my wife to Italy

In Rome in particular, I noticed that there were a lot of scooters about. ....Some of you who have traveled will know what I mean by 'a lot' .....but in Sydney ... at that time .... there weren't very many.

I wondered why they weren't so popular in Sydney..... it has ideal climate, we have a strongly European culture. ...but when I returned home, I realised that I might be wrong.... they did seem to be actually increasing in popularity. I started to notice them more

### Slide 4



So for my honours project ...I studied this change in behavior using an ethnographic research approach and .....instead of designing a new mobile communication device or some wizbang new three wheeled mobility vehicle as many students do for their honors projects ...I DESIGNED a research project, I DESIGNED the first peer reviewed paper in the history of UWS Industrial Design, (do you all know what 'peer reviewed' means?)

.....out of this paper I DESIGNED some recommendations and DESIGNED a communication package which I presented at an International Transport Research Conference in Canberra in 2002. This all ultimately lead ...to my winning .....an Australian postgraduate research award ....which has enabled me to continue my research in this area .....by doing a PhD.

And in my case doing a PhD means DESIGNING a research project that leads to new knowledge in the DESIGN field

.....OK enough about how great I am...lets hear more about me

## Slide 5



## multiple shots

During my earlier scooter project ...I came across dozens of designs for other small vehicles. Fabulous two ..three and four wheeled alternatives to cars....and this discovery lead to the genesis question for my next project ... the one which guides my research today ...and that is.... “why do... the many alternative vehicles designed and produced

## Slide: 6



## multiple shots

... so often fail?”

## Slide 7



I spent the first six months of my PhD candidature reading everything I could get my hands on about sustainable transport.

I churned through nearly 200 texts in the search for a starting point which seemed to get more distant every day.

But one thing that did stick in my mind was that many of the most senior transport strategists around the world ...were saying that, ..small, ...single person transport was very important for our future mobility needs....So why weren't they happening? ....But more importantly ....where should I start to unravel this seemingly global problem ...and what could **Ian Coxon**, University of Western Sydney's oldest Industrial Design student, do about it?

## Slide 8



....so I asked a very learned sociologist from our university for his advice and he said...I an.... search for the “thin edge of the wedge” ...  
solve the problem you will not at this place .....he said....  
...too large it is ..he said  
but look for where it will create the most impact.  
Thats easier said than done.

## Slide 9



From all that earlier transport reading ...I understood that the key factors that influence transport decisions are Politics, ...Economics, ....Society, ....Technology.... and the Environment.  
... the one that I felt, was a hinge point ....or key driving force for change... in nearly all of them was ...Society  
...but society is made up of individuals, who are in turn a product of their experiences. ...now...this was starting to feel like the ‘thin edge of the wedge’.

## Slide 10



After the first eight months of my candidature my Primary Supervisor left the University and I chose a replacement ...who in our first official meeting told me to stop reading transport literature.

She said “I an..stop reading all that transport literature....you are on the wrong track ....it’s not about that at all”.

This completely blew my mind. I was angry and totally disagreed with her....so I consulted another highly regarded research academic that had done a lot of work in Social Science research ....using qualitative methods.

She was the first person who mentioned the concept of ...valuing an individual’s personal experience.

Up until that point ...I like many of my colleagues ...believed that you always had to have numbers to validate anything in your research.

Numbers of people, ...numbers of times they did something, ....percentages who liked or disliked something, graphs, likert scales .....you know what I’m talking about.

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So not long after this,....one morning in the shower, ....I had an epiphany....a break through moment

... yes I thought, this whole thing is about ....experience!!

I nearly fell out of the shower trying to get dried and to my email fast enough to tell my supervisors that I had solved the problem of... what I was going to research,....with whom and ....why.

I didn't realize that this was just the start ...and that I would spend the next five months reading practically everything I could about the concept of experience.

I also realized that the amount I needed to understand about experience was....huge..... so I started reading again

## Slide 12



.....I read about the complex relationships that can exist between the sensory systems through which we experience the world .....and other aspects of our physical and mental selves.

.....I read about the affective or emotional ways in which we react to external stimuli .....and the many cognitive relationships which take place between all of these things.

I also realized I was a novice in this area ....and could read for another five years ....and still not be as well versed ....as any of the people who specialised in these many disciplinary fields.

...I stopped reading. Well not stopped... I terminated my reading which means I stopped ...searching out more reading... and just tried to cope with what came my way ....which was still quite a lot

*Long pause for change of mood-*

**Slide 13**



In the literature relating to postgraduate research ...particularly PhD research ....there is a lot mentioned about establishing your Philosophical framework. That is in simple terms,.... the philosophical basis or underpinning of the thinking which you intend to apply in a research project.

I was reminded by my new principle supervisor Professor Hart Cohen, that this was after all, a Doctor of Philosophy not a masters in design research. So off I went again ...

back to the books to determine my what my philosophical standpoint was, ....and your philosophical standpoint is strongly influenced by the biggest question of all.... who are you?

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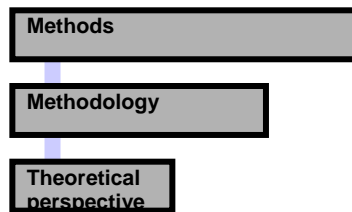


WOW ...what a question that is..

That's ...THE question.

I thought ...this is existentialist stuff and I didn't know if I should ..or could really go there..... or if I did ....could I find my way back? It was Scary stuff!

## Slide 15



But I read more and more books... (over 200) ....and after a short while I started to relax with it ...and use my new found but limited understanding of philosophy...to make some sense of ....which type of research tradition I was coming from..... Without going too far into it, ...mine looks a little like this.

The more I read about it ...the more I found a personal harmony with a philosophy called phenomenology.

A key aspect of this philosophy ...is that it places a very high value on the meaning contained in an individuals 'lived experience' ...their life ...as it is lived

## Slide 16



So here I am feeling pretty happy with myself.... I am unraveling the mysteries of 'experience' ....I have painstakingly developed a revolutionary new theory that places emotions at the heart of the design concept ...when all of a sudden a small piece of information casually came my way, which completely blew me away...yet again.

It was a chance encounter with some literature which referred to a group called the 'Design and Emotion Society'.

When I read about them the hairs on the back of my neck stood up, I can tell you.

Here was a group of designers, researchers and people from many diverse disciplines ...mostly research practitioners, ...who since 1999 have been having

conferences and exchanging ideas without letting me know....I was dumfounded  
....here I was working this all out for myself ...and all of a sudden ....here's a  
group, on the other side of the world, who have been doing this stuff for years.  
...Again I spiraled into despair. ....What was there left to do ..... surely all the  
work has been done and my project is superfluous?  
This was after a year and a half of work!

**Slide 17**



...on the backs of giants

Again after more sage advice and a degree of counseling, ..I simply said,.....  
well... they haven't done any research on this particular angle on transport or  
seen it from my perspective.... so I charged ahead again determined to produce  
something brilliant.

In my reading I have discovered that some truly outstanding people had been  
there and done a lot of the thinking before me.

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....max van manen ...peter willis  
hermeneutic phenomenology

I would like to draw your attention to people like ....Max Van Manen ....and  
Peter Willis (An australian)...who have made me appreciate that understanding  
the individual experiential perspective ...is valuable and attainable.

The philosophical methodology they describe ...and I have adapted for my study  
...is Hermeneutic ....Phenomenology.

It is Hermeneutic... in that it seeks to interpret the living texts of life which I have  
captured recently in my field research... and it is Phenomenological ...in that it  
deals with peoples...lived experiences.

So in other words I have captured peoples lived experiences, turned them into texts and interpreted them.

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In my reading I strongly related to a comment from Martin Heidegger ...who pointed out that part of the value of hermeneutic approaches comes from the possibilities that they allow in the researcher.

Here was a man saying that ...I ...was important to the process.

This reinforces van Manens proposition that the researcher can seen as a research 'instrument'

Now this sounded like something I could really get my teeth into....immediately.

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So last year I decided to throw my self into understanding the users perspective ....and arranged a sponsorship from Benelli for one of their Adiva scooters. This was the closest thing I could find to an alternative transport vehicle in Australia.

In Europe these vehicles and many others, like them are more commonplace... but in Australia we have either cars ....or motorcycles and scooters..... nothing in between.

This in-between segment of the market is the one ...that the transport strategists have been saying ...needs to be further developed in the future.

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...so I ....(and my lovely wife) ....rode this vehicle around Sydney for nearly eighteen months in our normal everyday lives...I documented all of this...and found ....there was more to this experience than meets the inexperienced eye. This is what convinced me ....that I needed to know more about peoples actual experience of these vehicles,... and as there were none in Australia and many in Europe...well ...off I went to Europe.

## Slide 22



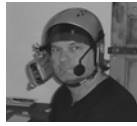
At this point I think I should explain a key aspect of the phenomenological methodology.

It is built around the concept of not just explaining what goes on but developing an understanding of what is going on.

There is a key difference here ...in that explaining only requires that you describe something ....it doesn't mean that you understand it ....or that anyone else can.

. ....and this is one of the key reasons for conducting the field research in the way I have.... and it is also...so I can remain true to the philosophical ...and methodological framework I chose for this project. ....Hermeneutic phenomenology ....this also requires that you understand and not simple explain.

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In order to understand the lived experience of others....which I also think of as 'DESIGNING' ... I had to do three things...

I had to DESIGN ways to capture it,

....then interpret the variety of texts it produced, using hermeneutic analysis

....and then ultimately distil and communicate the essence of the experience to others...which is a fundamental aspect of Phenomenology

So I used a digital video camera to conduct interviews with some of the design people responsible for giving birth to these vehicles.

I used 'prompt and probe' techniques ...using questions like ...why did they design it...and what was it like to design it ..and what was it like to use it?

I also conducted unstructured interviews wherever possible with people who had ...used these vehicles, and probed why they chose it, ....why they continue to use it .....and fundamentally, ...what was it like?

Wherever possible ...I drove the vehicles myself, and I documented the experience from my perspective ...and I also interviewed users while they drove the vehicle and I was with them.

I documented the context of their use to a limited degree in order to have some understanding of the existential factors surrounding their use. Of course you can only touch on the surface of this, but as it turned out, this is very important.

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**Abe**

So at this point I will show you a few scenes from the 20 plus hours of multimedia data that I have collected, just to show you some of the different research techniques that I used to investigate this concept of experience.

This is my first interview at BMW with Karl Heinze Abe who designed the BMW C1- notice his hand gestures..they all went into my transcript

**Slide 25:**



**Thomforde – Head, Gut and Heart**

This is Professor Johan Thomforde ....who designed the first Mercedes Smart Car ...he was the head of Ford design in California before he took on the Smart

**Slide 26**



**Judith – no risk no fun!**

This is an interview with a BMW C1 rider.

Notice the paradox between what he says about safety and security ....and what he actually does on the road

**Slide 27**



**Twike group**

This is a 'group interview' with a very happy group of Twike drivers using locally brewed truth syrum

**Slide 28:**



Van Boven

Here I decided to change tactics a little and interview the driver while he was driving and wearing the helmet cam. This is shot on an autobahn in the Netherlands...I also drove this vehicle

**Slide 29:**



Twike

This is a sequence that I have roughly edited to show what driving a Twike is like

**Slide 30:**



Florence streets

.....this is some of the contextual footage that I think gives something of the 'feeling of the streets' in Italy

**Slide 31:**



Driving in Florence

This scene is a little longer ...but I think gives you some sense of ...'what it is like' to ride a scooter ...on Italian city streets.

**Slide 32:**



(sound button – re NVivo)

Ok, ok, yeah yeah... .. I ended up with over 20 hours of tapes like that to analyze.

I transcribed these videos and sound recordings individually by hand, and entered the text into a programme called NVivo which I used to help analyze and code large amounts of text.

I also used this program to code the images and sounds contained within the interviews and observations ...in order to assist me in the analysis, interpretation and communication of the findings.

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a little while ago... I had a meeting with a senior ....internationally known ....Design Academic and Philosopher (I was fortunate enough to be granted an audience with him when he visited Australia) .... that my research proposal, at that time, was not quite good enough for a PhD.

“ Its not bad” he said “but I’d only give you a masters for that”

So I listened to what he had to say....after all he has 2 PhD’s and I so far...have none ..he told me I needed raise my sights and as far as outcomes go, ...so I will produce the normal thesis report ...which traditionally requires an academic piece of literature of around 80 to 100,000 words, ....this is used to evaluate the candidature by three external examiners.

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"Poetizing ...speaks **the** world rather than abstract speaking **of** it "

'But to take the project a step further ...as he had strongly suggested ...

I am planning to do something that I find far more exciting...and that is to produce a collaborative work with other communications students...possibly in Germany ....to produce a multimedia representation of my methodology for understanding 'experience'.

Again this complies with the philosophy of hermeneutic phenomenology...in that it honors the possibilities that can come from a 'poetization' of the 'essence of an experience'

....Here Van Manen sums it up beautifully by talking about the way poetizations 'speak the world' rather than speaking 'of it'

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Rather than dictate to people what to do in a formulaic, design process approach, ...a poetization, a music video, a website communication ....does not have one answer or one interpretation.

It allows the viewer to interpret it and develop their own possibilities.

What a car designer might take from it ...will be different to ...what the landscape designer might find in it

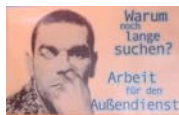
I hope to distribute my methodology to whoever might benefit from it... because I feel it has the possibility of being more useful ...than an academic text in a library somewhere.

## Slide 36



The two key outcomes I hope to achieve from this project ....is to firstly offer Transport Designers another way to look at designing for this field. Hopefully a perspective... that places a higher value on the usage experience of their consumers,

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The second is to offer some new ways to look at Design Research methodology ....which might assist in the design of goods and services.... that have more meaningful relevance to individuals and are not be just ....more ....meaningless artifacts ....which we discard so easily.

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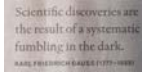


So back to that jelly fish that I started with .....why doesn't a jelly fish get sunburned?

The answer is ...no one knows.. but.... there is a group of researchers trying to find out.

Studying the jellyfish offers the possibility ....of a new protection against sunburn... but also ....the process of researching that discovery ....is a process of discovery in itself...in which new research skills are learnt. ...This is when research becomes ....DESIGN

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I began my project with a genesis question ...and to this date I am not sure I have answered that question ...or another one, ....but one thing I am more and more certain of ....is that there are some things that resist definition,

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....there are many things in the human world... that cannot be defined by quantitative, statistical methods ... but might still be understood all the same ....perhaps just in a different way.

Finding a different way is what my research is all about

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Research **for** Design is about understanding the needs of users ...yes ...but if in the process of doing this.. we learn more about ourselves as designers and as people ..then ...it also becomes, in a way ....research **about** design.

## Slide 42



Max Van manen said it beautifully, I think,..."Phenomenological research is a being-given-over to some quest, a true task, a deep questioning of something that restores an original sense of what it means to be a thinker, a researcher, and a theorist

## Slide 43



...designer or thinker?

.....so my suggestion to you as a student, as a designer and as a researcher is  
....don't try so hard to be a great designer... work harder at being a better  
thinker ....and you will have already become ....a better designer!

## Slide 44

.....thank you