Successful Sustainable Design

By Elin Adenfelt, Industrial Designer MFA
2005

Introduction

In June 2004 I finished a Masters Degree in Industrial Design at ‘Konstfack’ (University College of Art, Craft and Design) in Stockholm, Sweden. For my Masters Degree project I investigated sustainable alternatives to the way we live now – it envisages the future of the manufacturing industry, subject to limited or no access to crude oil. The research report includes the four concepts, ‘Earmarking the Remaining Crude oil’, ‘Alternative Materials’, ‘Inspiration from Nature’ and ‘Rethinking the Consumer Society’ and it can be found as a pdf file at www.adenfelt.se/nomoreoil. I was also fortunate enough to have ‘The Natural Step’ as professional mentors during the project. The Natural Step is an international, non-profit advisory and research organisation working to promote global sustainability.

I have a great interest in environmental issues and in finding sustainable solutions for the manufacturing industry. My wish is to continue working within the area of sustainable development for the manufacturing industry, which I see myself doing by informing, counselling and inspiring, rather than working as a typical industrial designer.

What is Sustainable Development?

The Bruntland Commission* defines a sustainable development as a development which satisfies our needs today, without jeopardising the possibilities of future generations to satisfy theirs.

*The first of the UN’s environmental conferences was held in Stockholm in 1972. The industrialised and developing countries gathered to describe the right of the whole of humanity to a healthy, productive environment. In 1983 global co-operation had become wors rather than better, and the World commission for the Environment and Development was appointed by the General Assembly of the UN. The task of the commission was to formulate a world programme for change. The name ‘Bruntland Commission’ comes from its chairwoman, the Norwegian Prime Minister Gro Harlem Bruntland.
About the Project

This project follows up my Masters Degree project and the intention is to investigate the possible ways to go from ‘words to action’.

The aim with this project is to further investigate how one as an industrial designer can make a business out of consulting or convincing companies to change their products in a more sustainable direction.

To accomplish this task I developed a plan which includes:

**Practical experience**
- Voluntary work at organisation working for sustainable development.

**Research work**
- Interviews and conversations with experts in this field.
- Gathering of information from books, articles and websites.
- Participation in networks and organisations.

**Summary report**
- Summarise my experience and new knowledge in a report.

London and Australia

I started this project living in London. I completed my practical part of the project there by working voluntarily for an environmental organisation called ‘Forum for the Future’.

A few months in working on this project, my partner got offered a job in Sydney, Australia with immediate start. We decided to take the chance and live overseas for a couple of years. The research work and summary report of this project is therefore made in Australia.
Practical experience

Forum for the Future

To gather some practical experience I first contacted the environmental organisation Forum for the Future in London. They were happy to have me in as an intern.

Forum for the Future is recognised as the leading sustainable development charity in the UK. Their mission is to accelerate the building of a sustainable way of life, taking a positive, solution orientated approach. More information about the Forum can be found at: www.forumforthefuture.org.uk.

The duration of the internship was two days a week for one month (ca. 70 hours).

At the Forum my main task was to assist my line manager Chris Sherwin with preparing and develop work on sustainable marketing project and research work on sustainable tourism for First Choice, one of Britain’s biggest Travel agencies. Much of this work fed directly in the First Choice workshop, which was very successful and received great feedback, according to Chris Sherwin. A summary of this research can be found attached to this report.

As a part of Chris’s job he visits companies and lectures the employees about the state of the world from an environmental point of view, and also how they as professionals can lead their work in a sustainable direction. One day I accompanied Chris when he visited an architect firm in north London. It was very interesting to see how he presented the information to them. Amongst other things he explained that if all humans consumed as much of the planets resources as the westerners do, we would need five planets to “feed” all humans.

On these kinds of visits Chris invites the attendance to select a representative for different tasks and he always has a check-up with these representatives in a month time to see whether any progress have been made. In this way it’s more likely to get results. He also inspired them to have one person responsible for finding out about alternative material and another one for energy savings etc. and perhaps develop a kind of library.

Unfortunately, in this particular case, the architects seemed more interested in the free lunch that was served, than learning about how to change their way of working action towards sustainability. Discussing this matter later on Chris confirmed that this is rather often the case and that is the downside to this job.

It was a very interesting and instructive experience working with the Forum. The environmental awareness is present everywhere in the Forum office; from organic, fair-trade coffee in the kitchen to recycling bins under every one’s desks. All the employees have to fill in a chart of how much CO2 emissions their way of travel release every workday, including the journey between work and home. Most of the
employees use public transport, cycled or walked to work. When on longer business trips, they travel by train rather than flying whenever possible. However, if they do need to fly they pay their ‘environmental depth’ at www.carboncounter.org.

‘Carboncounter’ is an organisation which sets out to do two things:
1. Educate people about the dangers of global climate change and provide an easy way for anyone to reduce the environmental impact of their daily life. Carboncounter.org is a simple way to calculate the amount of carbon dioxide that you emit every year in your daily life. Using our unique, easy-to-use online test, you can determine the amount of carbon dioxide you emit in only a couple of minutes.

2. You can then sign up to support real projects and programs that reduce the amount of carbon dioxide in the environment. By choosing to support these projects, you will be taking a proactive step towards reducing the greenhouse gases that contribute to global climate change.
Forum for the Future, Volunteer agreement

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Programme: Forum Business Programme

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Overseas House
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Line Manager: Chris Sherwin

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<th>Objectives for Volunteer</th>
<th>Outcomes for Volunteer</th>
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<td>Gain experience working in Forum office environment.</td>
<td>Experience of working with Business Programme, attending team meetings, supporting research activities.</td>
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<td>Build CV</td>
<td>Improve research skills</td>
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<th>Objectives for Forum</th>
<th>Outcomes for Forum</th>
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<td>Assist with research work, rather than replacing existing staff.</td>
<td>Efficient use and charitable impact of existing staff time through volunteer support.</td>
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Expected Tasks

Research for Limited Edition with First Choice:
- Review of state affairs in SD/CSR (Sustainable development/Corporate social responsibility) in tourism sector.
- Review market and consumer insights on SD/CSR in tourism sector.
- Define what are key SD/CSR impacts and issues for tourism sector and First Choice.

Help find and store best practice examples of sustainable marketing and communication (if time allows)
Research work

I believe it’s helpful having good examples of how a successful sustainable product designer works. Therefore I have gathered a few and I will describe their background and their services.

Good Examples of Sustainable Product Design Consultants

BioThinking

Biothinking is a British company based in London and Surrey. It is led by Edwin Datschefski. Edwin's background is as a biologist at Bristol University and after working in the aerospace industry he spent 8 years working at The Environment Council, developing programmes involving thousands of UK businesses to enable them to realise the benefits of improved environmental performance. Edwin is experienced in both ecology and business which gives him unparalleled understanding of how products can become truly sustainable. He has trained over 6000 people in environmental management and sustainable product design, and given talks all over the UK, as well as in France, USA, Japan, Sweden, Denmark, Luxembourg, Malta, Belgium, Italy and The Netherlands.

I found Biothinking one of the most interesting sustainable consultants.

Biothinking’s mission is:

“I (want) all products to be totally compatible with nature. This means redesigning products and industrial processes so that they are completely cyclic, solar and safe as well as becoming more eco-efficient and socially just.”

“As I can only design a small number products during my own lifetime, my personal goal is to train and inspire one million people worldwide in the techniques of sustainable product development”.

BioThinking’s services

- **Consultancy** on sustainable product development, branding and manufacturing.
- **100% Sustainable Product** is a special process to develop a flagship concept product that shows the route towards 100% sustainability.
- **Consultancy on Business Strategy**, using proprietary methodologies to gain insights into process design, sales channels, customer process, competitive strategy, and ways to increase market share.
• Training Workshops, Talks and Facilitation.

Consulting

BioThinking International provides an extensive range of consulting services.

Integrity: Future-proofing brand values.

"Integrity" is a service that can be applied to both existing and new products, or the results can be used as a brief for a concept or a flagship product that can inspire and inform the rest of a range. Following are the techniques that are used:

• Issues Identification Workshop, identifying environmental and social impacts across the whole life cycle of a product. Perception of external stakeholders such as customers, campaign groups and trends in upcoming legislation are all considered, as well as trends in other industry sectors.
• Issues Quantification, analysis and risk assessment, including product scoring.
• "Earthstorming™" is where they create solutions and concepts, using various methods, including drawing on a database of over 1000 eco-innovations and also using nature itself as inspiration.
• Story-Led Prioritisation, where the innovations and new design features are assessed for their iconic value and marketing potential, as well as their cost and environmental benefits. This also explores branding potential, story promotion, and market potential.
• SP100 -100% product visioning. Development of concept products that are 100% sustainable, to depict the most desirable, future state of a product or organisation, and inform and inspire future product development.

Depth Charge

• "Depth Charge" is about Capacity Development within an organisation, a menu of services that will recharge a team's capabilities: Gaining internal support by writing project proposals and business plans. Themes have included: identifying market opportunities, developing new business models, and justifying spend on capacity building.
• Hot groups - "Lively, overachieving, dedicated groups, usually small, whose members are turned on to an exciting and challenging task". The process of creating and nurturing such voluntary, informal groups of high achieving individuals has a low success rate but huge benefits for all involved. Hot groups are ideal for tackling the cross-functional and somewhat counter-revolutionary nature of sustainable product development.
• Status monitoring – A database development for sharing and reporting progress on the greening of the product portfolio, e.g. tracking the percentages of green and super-green products, and developing indicators and measures.
• **Purchasing** - Getting the right type of materials into the organisation is essential for achieving sustainable mass flow. This includes training purchasing departments, raw materials sourcing, supplier assessment, and supplier search.

**100% Sustainable Product**

Edwin has designed some concept products which suggest that far from being pie in the sky, 100% sustainable products are fast becoming feasible.

He would like to work with a manufacturer to develop a 100% sustainable product. It would be a flagship, an inspiration for other parts of the business and beyond.

Instead of environmental issues being something costly or bad that must be avoided, this would focus on an aspiration ideal, something to work towards.

The focus is in achieving a 100% sustainable product system. This opportunity is well within the grasp of many companies. It's just a question of who gets there first...

“It's a big challenge, but unless we start thinking about where we want to go, we will end up where we are headed...”

**Consulting on Business Strategy**

Biothinking’s core theme is based on understanding that products are organisms inhabiting a constantly changing ecosystem. Finding the right niche is clearly vital, but you have to look beyond the basic dimensions of timing, market sector, price and so on.

**Talks, Workshops and Training**

- **Talks** - Edwin is an inspirational and enthralling speaker. A database of over 1500 product images forms the basis for lectures and workshops. He has found that showing pictures of product examples is the fastest way for people to grasp sustainable product design concepts and has built up an unparalleled collection of images and examples.
- **Books** - Sowing a few copies of Edwin's latest book, “The Total Beauty of Sustainable Products”, into an organisation or design department is an ideal way to plant the seeds of total product thinking.
- **Digital Media** - Access Edwin's thinking via his website at www.biothinking.com. Tailored distance learning material can be produced, and an audio CD and a trainer's slide package is in development.
- **Workshops** - Half-day or one-day introductory workshops are an excellent way for a group, design team or management board to explore the issues,
identify opportunities and develop implementation strategies. Also available --
the two- or three-day Masterclass.

- **Universities and Design Schools** - Edwin is a prolific Visiting Lecturer and
has run 2 or 3 hour sessions for dozens of design courses around the UK and
abroad.

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**BioThinking for Product Design**

Following is Edwin Datschefski’ writing about his work with Biothinking. I find it
very inspiring

“**Product Design and Brand Integrity** can be improved by adopting the
'cyclic/solar/safe' methodology by integrating industrial and ecological materials
flows to create products that are good for people, profits and the planet.

Designers are purveyors of elegance, style and functionality. But much of this
elegance is only skin deep.

A few designers and discerning consumers are starting to look beyond pure surface,
recognising that while an award-winning chair for example may look beautiful, can it
really represent the pinnacle of mankind's genius if it is made using polluting methods
or by exploiting workers?

Governments, communities and industry are all working to prevent pollution and
over-consumption from ruining the planet and the natural resources we all rely on like
oceans and forests. To support this, there is an urgent need to make all industrial
products and processes 'sustainable' good for people, profits and the planet.

As you will see on this site, a handful of enlightened manufacturers are starting to
take sustainability seriously. Small numbers of new products are becoming available
that have a 'total beauty' about them  their total life history, from the cradle of raw
materials production to their end of life has been designed to minimise environmental
and social impact.

But if you go into most shops that stock "designer" products you will not find any
good examples of environmental performance. There may be a few minimalist items
made of nice-looking wood and steel, but these are not as green as they look, as they
have hidden impacts like intensive forestry, toxic leather tanning, open cast mining,
and so on. There will also be lots of chrome and brightly coloured plastics, materials
widely known to be bad for the environment.

In fact, the world is so fundamentally wrong when it comes to product design that it's
hard to comprehend. For every eco-designed product like the e.light,* there are ten
thousand products that have no environmental improvement whatsoever. Of course,
most manufacturers eventually comply with the few laws that cover environment,
taking the lead out of paint or make their packaging more recyclable. But this is only
the tip of the iceberg of what needs to be done.
My work with BioThinking aims to address that. I wanted to develop a quick way of assessing how good a product is for people and the environment. And I wanted to find out what the top ten most common and effective ways of making a product more sustainable are.

This is not just about the obvious things like recycled paper or electric cars. I was looking for a way to make it easy for people to design or redesign ANY product and make it better, from barbecues and binoculars to suitcases and swimming goggles, and even the most obscure products like fake Austin Power's teeth.

Nobody challenges these products. No customers are demanding better versions in terms of environmental performance. They simply haven't thought about it and the price and user performance are acceptable. And why should they? It's not the consumer's job to chase up manufacturers and make sure they don't mess up the planet.

It's up to designers and product managers to redefine how products work and how they are made. There is an urgent need to redesign all products now. Sustainability can only be achieved through better design.

Environmental and social issues are complex and can seem hard to get to grips with. The approaches on these pages build on the lessons learnt through many years' experience and hundreds of product innovations in order to make the challenge of sustainable design more approachable.

Many of the examples presented here may seem unusual or radical. But what seems radical today will be mainstream tomorrow. Becoming 100% sustainable is not only possible, it can be achieved within a few decades. By reading the material on this website you will be taking the first steps towards becoming a sustainability-literate designer. Good luck!"

Edwin Datschefski, London, June 2005

* The e.light is a recyclable desk lamp that draws an amazingly low 3 Watts of power and has 93% less mercury than other lamps.
A Helping Hand for Designers

The Biothinking website offers a lot of useful information for designers who want to be responsible. The website aims to be an educational resource for people wishing to understand how the world, both manmade and natural, operates along biological principles. Biothinking results in products, processes and business models that are adaptable, sustainable and well suited to their niche.

Datschefski has also written a book called: “The Total Beauty of Sustainable Products”

![Sustainable Products](image)

This book has been out of stock and I have been unable to buy it. I have also tried to get in touch with Mr Datschefski for an interview, but without result.

Although, I have had a look in the book while working at “Forum for the Future” and it’s very inspiring.

Following is one of the reviews written about the book.

“A showcase for the best in sustainable design, this handbook is for anyone involved in designing, making or selling consumer products. Packed with stunning colour photographs, this book uses an easy-to-learn system for understanding the environmental and social impacts of products and their manufacture and shows how products can be cyclic, solar, safe, efficient and social.”

Product Ecology

Product Ecology is based in Melbourne, Australia. They are a consulting group focused on strategies, advice, products and services for environmentally progressive organisations. Their aim is to support companies, agencies, associations and other consultants to manage socio-environmental issues in a realistic, exiting and cost-effective way.

Product Ecology is committed to the practical application of eco-efficiency and industrial ecology. They recognise the value of strategic thinking and durable outcomes. They believe that effective sustainability outcomes depend on trans-
disciplinary approaches that can generate worthwhile outcomes with widespread benefits.

I had a meeting with the director of Product Ecology, John Gertsakis at his office in Melbourne. He explained they are involved in many sustainability projects throughout Australia and New Zealand. Victoria which is the state where Melbourne is in is ‘Consumer Electronics Suppliers Association’ (CESA) / ‘Product Stewardship Australia’ (PSA) which is “A Collective Product Stewardship Approach for Electrical and Electronic Products in Australia”, ‘Return to Sender’, “An introduction to extended Producer Responsibility” and ‘EcoReDesign’ for “Improving the environmental performance of manufactured products” are just some of their projects. Product Ecology is when this is written in a close cooperation with the Australian government to implement regulations for electronic waste.

Mr Gertsakis is a very involved, intelligent and inspiring man. He convinced me to be as involved as possible and that working with these issues can be hard but also very rewarding.

My interview Mr Gertsakis is presented later on in this report.

**MBDC**

MBDC (McDonough Braungart Design Chemistry) is a consultancy founded in 1995 by the world-renowned architect William (Bill) McDonough and innovative chemist Michael Braungart to reorient the design of products, processes and systems to provide financial, environmental and societal benefits. Together, MBDC and its co-founders have developed the innovative paradigm of Cradle to Cradle Design, widely recognized as the cutting edge in practical and profitable sustainable product development, providing a unique vision, process and tools for expanding industry leadership.

The firm was founded to promote and power "the Next Industrial Revolution" through intelligent design. The firm employ Cradle to Cradle Design using strategies we call "eco-effective" (rather than the widely promoted "eco-efficiency") to create products and systems that contribute to economic, social, and environmental prosperity.

I wrote about these concepts in my Masters Degree research report.

**Cradle to Cradle™ certification**

Cradle to Cradle™ certification provides a company with a means to differentiate its product within the marketplace, defining tangible achievement and providing credibility.

Within the certification process, MBDC evaluates a material or product's ingredients and the complete product for their impacts on human and environmental health, as
well as the capacity for the product to be truly recycled or safely composted. Certification of a finished product also requires a company to measure the quantity and quality of energy use (i.e., relative proportion of renewable energy), quantity of water use, quality of water effluent, and workplace ethics associated with manufacturing. If a candidate material or product is found to achieve the necessary criteria, it will be certified as a Technical/Biological Nutrient or as a Silver, Gold or Platinum product. MBDC also is creating a system by which companies who have certified products can license the use of the Cradle to Cradle™ brand for marketing.

On September 14, 1998, President Clinton signed Executive Order 13101 which outlined the Environmentally Preferable Purchasing (EPP) program for the procurement decisions of all executive agencies. "Environmentally Preferable" was defined as "products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose." Based on this definition, a product certified as Cradle to Cradle™ for one of three tiers (Technical/Biological Nutrient, Gold or Platinum) would qualify as "Environmentally Preferable," since the MBDC certification system prioritizes optimizing the human and environmental health of materials.

The following are anticipated milestones for the release of the certification system:

**June 13, 2005:** William McDonough introduces the certification system at NeoCon, the largest annual interior furnishings and systems show in the U.S.

**August 15, 2005:** Deadline for submitting applications for initial certification review

**September 1, 2005:** Announcement of first Cradle to Cradle™ certified products

Cradle to Cradle™ Certification Documents were still not available when this was written.

**Reaping Business Benefits**

In the 1990s leading companies pursuing Eco-Efficiency realized cost savings. By pursuing a design paradigm, MBDC helps companies not only reduce costs, but grow strategic opportunities.

MBDC's Cradle to Cradle Design paradigm leads to innovative new products and services that grow revenues. Eco-effective, regenerative design strategies create environmental health and abundance. The paradigm also leads to design for social and intergenerational justice and prosperity.

On their website they describe the increased competitive advantages by using Cradle to Cradle design like this:

“Cradle to Cradle Design raises the bar for intelligent design of products and services. Our approach keeps our clients ahead of the curve, driving an environmentally and economically sustainable agenda. By implementing eco-effective design strategies,
companies move beyond regulatory compliance to true intelligence and sustainability. Competitors with less foresight are left behind. Companies that design products intelligently can even become advocates for, and benefit from, legislation that promotes environmental and human health, while their competitors struggle to comply.

For example, by looking beyond government regulations to truly intelligent and sustainable design criteria, the Climatex Lifecycle fabric MBDC designed for Rohner Textil has set new industry standards. Other companies are still trying to catch up to Rohner, which began licensing the Climatex Lifecycle technology to its competitors in 1999.”

“Cradle to Cradle Design aims to eliminate the need for regulations or dangerous materials management. By implementing intelligent design strategies and criteria, companies can dramatically reduce legal and other costs, strengthening their bottom line. Designing for cradle-to-cradle product life cycles also reduces reliance on virgin material inputs, lessening overall material costs.

MBDC’s supply chain analysis also reveals potential for increased efficiencies. For example, in analyzing one client’s supply chain, MBDC found that a key component of their product was produced in the U.S., sent to Asia for simple mechanical processing, then shipped back to a U.S. port of entry before being sent to the client’s production facilities. By revealing this opportunity for increased efficiency to the client, MBDC identified potential cost reductions.”

“Cradle to Cradle Design is fundamentally different from other approaches to sustainability. Instead of pushing a guilt-driven agenda of minimizing damage to the environment, we celebrate abundance. We help clients design high quality products and services that are safe, healthy, and ecologically sound. As a result, our clients offer their customers excellence by all measurements.”

In the July edition of the Australian magazine ‘Living Now’ 2005 there is an article by Martin Oliver who is a writer and researcher based in Lismore, New South Wales, Australia.

The article is called “The ecological age – thinking outside the square” and is based on Bill (William) McDonough’s and Michael Braugart’s work.

Oliver writes: For several years, manufacturing has been under the scrutiny of Bill McDonough, Dean and Professor of Architecture at the University of Virginia, and widely regarded as America’s foremost green designer. The implementation of his radical ‘out of the box’ approach has been trumpeted as the ‘Second Industrial Revolution’ and his mission is to redesign the human-created world without toxicity or waste. McDonough believes we have been putting our energies into alleviating industrial problems rather than solving them; an estimated 90% of materials extracted for durable goods almost immediately become waste, suggesting the need for radical overhaul.
When working with clients, his first step is to remove toxins substances and replace them with more benign alternatives in the shape of biological ‘technical nutrients’ that harmlessly enter the environment, and are safe enough to compost, or even eat.

**Conclusion**

Edwin Datshefski, John Gertsakis, William McDonough and Michael Braungart are all men with a lot of knowledge and experience of ecology and design as well as business. Of course it’s hard for all designers to work like them, but I find these three firms very inspiring example and that they have a lot to teach us all.

**Interviews**

**Interview with John Gertsakis**

The Principal of Product Ecology, Melbourne, Australia

John Gertsakis’ applied research and consulting experience spans over a ten year period, with projects covering the policy and practice of EcoDesign and Product Stewardship. He has written widely on many issues concerning the production and consumption of environmentally preferable products. He also sits on the editorial board of the Journal for Sustainable Product Design (Netherlands). Gertsakis has developed, co-authored and edited a diverse collection of manuals, guides and web sites, including EcoSpecifier; Savewater.com.au; A Guide to EcoReDesign™; Return to Sender: an Introduction to Producer Responsibility; and Appliance Reuse and Recycling: a Product Stewardship Guide. He has recently co-written a new book, ‘Design + Environment: A Global Guide to Designing Greener Goods’. John also writes regular Ecodesign and ESD columns for Curve magazine and Indesign.

John Gertsakis serves as an environmental juror on national and international judging panels, including the Design Resources Institute Sustainable Design Awards (Seattle, USA). Prior to establishing Product Ecology, he was the Head of the Centre for Design at RMIT University (1997 - 2001), where he continues to be involved as a Senior Associate and member of the Centre's Advisory Group.
The interview

1. **What made you become involved in environmental issues?**

   A deep interest in the natural environment and landscape protection was the initial and primary driver for my involvement in environmental issues. Directly experiencing and observing several major environmental campaigns on wilderness issues in Australia also contributed to my academic study and current professional activities.

2. **a) How did you start your environmental career? (Education etc.)**

   It began through more formal studies at university as well as voluntary work with non-government organisations campaigning on environmental issues.

   **b) What advice would you give someone considering working within sustainable design?**

   Endlessly read about sustainable design and related activities. Talk with designers, engineers, academics, researchers, marketers, consumers and others about sustainable design. Visit design studies and consultancies; visit manufacturing companies; explore and evaluate different, similar and opposing perspectives on sustainable design. Basically, try to inform yourself in the broadest possible sense. The spectrum of solutions related to sustainable design is wide and diverse; the challenge is to understand the possibilities and offer the best possible or most appropriate option to your clients or stakeholders.

3. **Who is your role model?**

   No one too famous, however I especially respect and admire those ‘everyday’ designers, engineers and product developers working in companies and design firms on real products that are trying to engage with the challenge of sustainable design. Having said that, I think there are some great thinkers, writers and academics on sustainability and non-sustainability issues, whom I hold in high regard. Not so much as role models, but more so as inspiring and progressive thinkers eg. Clive Hamilton (The Australia Institute), Philip Adams (ABC), Hugh McKay (social researcher/commentator). I’ve always appreciated the work of Walter Stahel (Product life Institute) as well.

4. **When did you start Product Ecology and how has it developed since?**

   2001
5. **a) What sort of projects do you normally get?**

Providing advice, direction and ideas on EcoDesign and Sustainable Product Development to designers, companies, associations and government agencies. Providing advice and planning services to manufacturers, brand owners and industry associations on Product Stewardship issues and Extended Producer Responsibility requirements. Product Ecology also provides environmental communications advice and services to the above clients on product oriented environmental matters.

Above all the projects have to be environmentally worthwhile, economically sensible and fun to work on.

**b) What sort of projects would you not do?**

I would not do conventional environmental management type work that is being conducted by numerous other environmental consulting firms. I would not work with clients that present ethical problems in terms of the products and services they offer, or their work practices. I’m also not interested in projects where the client is generally indifferent about the importance of sustainability. Being committed to, and passionate about sustainability from a real world business perspective is essential for my work and the organisations I work with and for.

6. **How do you convince people your work is worthwhile?**

Often they’re already convinced or have heard about the value we can bring to their activities. Usually there is a pre-existing motivation; so convincing them is not a major challenge. When we do need to push clients, we often highlight the environmental or sustainability activities their competitors are implementing. This tends to be quite effective.

7. **a) Do you contact your clients or do they come to you?**

It’s mutual, however we are finding that more and more clients are coming directly to us with a specific project or requirement they need help with. We have also developed some very close and long-term relationships and partnerships, which leads to ongoing work and project that doesn’t always need to be ‘sold’.

**b) How do you market your business? (if you don’t have to, how would you if you did?)**

Our marketing is very much based on ‘word of mouth’ or by referral and recommendation from existing clients, associates or project partners. The outcomes of our projects also attract new and interested clients. The web site helps with some projects, as does the delivery of lectures, workshops and conference presentations. Overall it’s word of mouth that is significant.
8. Give examples of new technology/innovation (incl. materials) which interest you.

I’m always excited by the development of smart materials that react and respond. I also like high performance materials produced from renewable resources, especially where the aesthetics don’t look primitive or low tech. The process of miniaturisation, light weighting and materials efficiency also holds great appeal, especially where it can lead to the sustainable application of materials.

9. Which manufacturing industry do you consider most harmful to the environment?

I find this question difficult as it can depend so much on regulatory controls, geographic region and individual corporate performance. Having said this I always get concerned about the mining and extractive industries. Increasingly there is a need for the electrical and electronic industries to significantly improve their environmental performance. While many positive outcomes have been achieved at a technical level, this broad sector needs to more effectively engage with questions of sustainable consumption and the need to reconfigure our patterns of product and service utilisation. I would have to say that the automotive industry needs some very dramatic change to improve its environmental performance. Again, not just at a technical design level, but at a utilisation and overall mobility level. With both of these sectors, the supply chain is inherent in any need for sustainability improvements and reconfiguration therefore, I see the plastics and chemical industries as key players in helping develop solutions, as should other material fabricators and processors.

10. What manufacturing companies do you consider a good model for sustainability? Why?

Interface, Steelcase, Hermann Miller, Wilkhahn, Nokia, Formway Furniture, Miele, Bosch, BMW Group, Toyota, HP, Close the Loop … plus several more I can’t think of right now!

11. a) Can companies compete and be environmental responsible?

Yes.

b) What are the main reasons for failure?

Lack of foresight. Lack of commitment. Lack of energy and enthusiasm. Lack of appropriate government intervention and/or support. Lack of effective consumer education. Lack of genuine respect for people and planet.

12. Why in you opinion, do people reject sustainability in industry?
They’re narrow-minded as well as blind to current and future realities. Short term thinking also helps to reject sustainability in industry. In many cases, government do not provide the best possible setting to support, sustain and promote sustainability in industry. I think limited educational opportunities may also lead to a rejection. Obviously the more we know about our world and all that’s within, the more we can be informed to develop and implement appropriate measures.

Interview with Dr. Cameron Tonkinwise

Lecturer School of Design
UTS, (University of Technology, Sydney)
Faculty of Design, Architecture and Building

Cameron is co-ordinating the undergraduate design studies subjects. He has a background in continental philosophy, cultural theory and educational theory. His doctoral dissertation, completed in 2000, examined “learning by design in the work of Martin Heidegger”. Cameron is also the Executive Officer of the Change Design Foundation (formerly the EcoDesign Foundation), a not-for-profit volunteer-run research institution promoting design-led change toward more sustainable lifestyles.

Teaching Areas
Design History; Design Studies; Design Theory; Design for Sustainability; Research Methods.

Research Areas

- Dematerialisation Design

Developing new ways of designing more sustainable less materials intensive lifestyles, such as through repairable and upgradeable products, shareable products, functional sales, leasing, and extended producer responsibility. The project focuses on the cultural values that represent obstacles to less individualistically materialistic ways of living, and is developing strategies that can aid designers to think in terms of Product-Service Systems.

- Philosophy Design Sustainability

Investigating the ontologies underwriting calls for the enhancement of the sustainability of societies. This project is documenting the assumptions about human
agency and human relations to artefacts at work in influential contemporary sustainable planning documents. Genealogies of these assumptions will allow philosophical critiques that can strengthen these guiding concepts and avoid the unsustainable consequences of the unthought through use of these concepts. The findings of these examinations will be communicated to professional planning associations and stakeholders.

- Design Theory Education Research

Examining innovative learning environments and processes for teaching designers how to be more theoretically astute. One project focus area is the politics of the institutionalisation of design at university level teaching and research.

- Sustainable Micro-Small Businesses

Developing resources, learning environments and processes, and graduating student placements that can assist owner-operated enterprises not only develop more sustainable ways of doing business, but changing to the selling of products and services that promote more sustainable ways of living and working.

The Interview

During my meeting with Dr. Tonkinwise he explained to me that the manufacturing of products in Australia is low at the moment and therefore also design. In New South Wales (the state were Sydney is in) product design is a niche and sustainable product design is a niche of a niche, that hardly exists.

Therefore I found it very interesting to see what he thought his student in sustainable design will do when finishing their studies.

1. **What made you become involved in environmental issues?**
   
   i) spent youth in bush and on water  
   ii) was friends with green activists at uni  
   iii) philosophical education promoted the strategic power of ecological politics as a wider change agent

2. **a) How did you start your environmental career? (Education etc.)**
   
   i) some green activism as a student
ii) while searching for a way to put philosophy into action, I discovered design – the practice of materialising ideas. I then commenced research with a supervisor who was at the time establishing an independent not-for-profit sustainable design think tank, for which I have worked for the last decade and now run as CEO.

b) What advice would you give someone considering working within sustainable design?
i) things are a lot more complicated than most people like to admit. Never let the urgency of the situation cause you to try to shortcut thinking things through thoroughly. The task is to promote careful thinking more than it is to take too quick action.

3. **Who is your role model?**
   Ezio Manzini

4. **What are the main issues/subjects you bring up when you teach ‘Design for Sustainability’?**

   i) the problem is consumption
   ii) the problem with consumption is NOT conspicuous over-consumption
   iii) the problem is inconspicuous consumption
   iv) consumers are reasonable but not rational; they are not irrational or evil; they are you
   v) this is why the solution has something to do with design
   vi) design that is not about green products but about facilitating, sustaining and thereby promoting more sustainable behaviour
   vii) the aim is sustainable behaviour not sustainable things or sustainable attitudes.

5. **Your students, what educational background do they normally have?**

   i) Undergrad are mostly straight-from-privileged-schools; Postgrad are mostly straight from not high quality design bachelors or equivalent

6. **Do you think they will work with sustainable issues when they graduate?**

   i) > 5%

7. **Give examples of new technology/innovation (incl. materials) which interest you.**

   i) SusHouse: www.sushouse.tudelft.nl
   ii) Sustainable Everyday: http://www.triennale.it/triennale/sito_html/quotidiano/eng/home_.html
8. Which manufacturing industry do you consider most harmful to the environment?

i) Disposable plastic packaging (even if ‘biodegradable’): a near-eternal product with near-zero use-life

9. What manufacturing companies do you consider a good model for sustainability? Why?

i) Electrolux – because of their proactive involvement with product-service systems as generators of sustainable consumption

10. a) Can companies compete and be environmentally responsible?

i) Yes, particularly in a coming era of manufactured product saturation, where business strategy will require competing on customised quality of service rather than cheapness of product.

   b) What are the main reasons for failure?
   i) Risk aversion

14. Why in your opinion, do people reject sustainability in industry?

i) Because what they think sustainability is appears incompatible with what it means to be a significant business, whereas there are forms of sustainability that are compatible with what it means to make profitable promises to customers.

15. What would give sustainability more credibility?

i) A better understanding of the everyday reasonable nature of consumption.

16. What standard/certification is meaningful?

i) None

17. Can you with reasonable certainty quantify what will happen if industry continues as it is?

i) Things will not crash, they will just get less and less like what we would like, but we will get used to that as well.
18. What legislation changes need to take place to improve companies’ attitude?

i) Extended Producer Responsibility

19. Which country has come closes to ‘get it right’? How?

i) It was Holland, now maybe Sweden

Tonkinwise also told me that to be able to convince companies about the importance and also the possibilities with changing their products towards a more sustainable design, it is an advantage to have an environmental degree of some kind.

**Interview with Kirsty Máté**

Senior Lecturer
Interior Architecture
Faculty of the Built Environment, UNSW (University of New South Wales)

Kirsty Máté has a Bachelor of Architecture and Masters in Design and has worked in the area of design for the environment since 1992. Her design background covers architecture, interior design and exhibition design, working as an architect and designer for various firms between 1986-92.

Kirsty has worked in the exhibition design industry in Germany and was responsible for the inaugural design and environment exhibition in Sydney with the Society for Responsible Design (SRD) MADE Accountable 1995.

Kirsty teaches Environmentally Sustainable Design at FBE and has been actively involved in the research and promotion of sustainability and design since early 1992.

She has directed her company Eco Balance since 1997, consulting to designers and organisations on issues relating to design and sustainability.

**Memberships and affiliations**

- Society for Responsible Design Inc.
- Energy Smart Ally - SEDA
- Australian (NSW) liaison for O2 (international eco design organisation)
- RAIA NSW Chapter Environment Committee - former committee member 1.5 years
- Global Cooling Pty Ltd - Director
Awards and Competitions

- Winner - International design competition for a resort at the Maldives with Xpace architects 2000
- Winner of Local Government Excellence in Environment awards - Leichhardt Council for SecondHand Saturday ‘00
- Winner of Best Business Plan in the Westpac/Random House Competition 1996

The Interview

Interview with Kirsty Máté
Senior Lecturer
Interior Architecture
Faculty of the Built Environment, UNSW (University of New South Wales)

11. What made you become involved in environmental issues?

I have always had a concern for environmental issues – as long as I can remember – but it wasn’t until I lived in Germany for a couple of years in the late 80’s and then returned to Australia to see what we WEREN’T doing I realised the responsibility I had as a designer to the environment and wider sustainable issues. The work I was doing for an architectural firm did not consider any of these issues and I didn’t feel I was truly contributing to the community unless I changed my ways and influenced others to do the same.

12. a) How did you start your environmental career? (Education etc.)

My career in this area began in the early 1990’s when in Australia we were only just beginning to seriously think about recycling! So there was very little information or happening in DESIGN. I found this organisation called the Society for Responsible Design who had the same objectives as I did and so did all my learning from other people and from my own research and reading.

Seven years later I did a Masters in Design which I focussed on sustainability. Today there is no degree or Masters degree which focuses on sustainable design within Australia – that I know about – however there are some Masters programs which focus on sustainability for certain disciplines.

b) What advice would you give someone considering working within sustainable design?

Self education is a great tool but doing a course or degree will open your eyes to different opinions and recent research. Keeping an open mind – both to the positive and negative aspects associated with sustainable design is important as
you need to be sure about your stand point on issues. As this is a new and
developing area there is constantly new research in this field and other related
areas – keeping abreast of this can be difficult and impossible at times but
necessary for one working within sustainable design.

13. Who is your role model?

Those who are pioneers in this area – stood their ground when others thought
them crazy and continue to do valuable work in this field – I am sure most of
these people I would not know or have even heard about as they have been too
busy just doing their stuff. However someone I really admire for his conviction
and courage is the late Victor Papanek, whose words are still seen as radical by
some.

14. What are the main issues/subjects you bring up when you teach
Environmentally Sustainable Design?

This is a hard one….I start the subject off with an overview of what the important
areas are – why we need to be concerned about these issues- what is happening in
the world. Then I focus on each area of environmental impact and how designing
is harming and/or influencing this area in a positive way. So the main topics are
associated around energy, water, waste, biodiversity, pollution, social equity and
then towards the end of the semester I address these issues as they are directly
related to interior architecture – their field of study.

15. Your students, what educational background do they normally have?

They are studying interior architecture and would have come either directly from
secondary school or have perhaps done other things in life before undertaking this
degree – other design degrees or perhaps just worked for a while – but majority
directly from school.

16. Do you think they will work with sustainable issues when they graduate?

Not the majority unless they have to - which is becoming more and more the case.
However particularly with this current first year I have noticed a much greater
awareness and knowledge of issues to do with sustainability than in the past.

17. As well as lecturing you have a business called EcoBalance, a sustainable
design consultancy firm. Tell me how you started it and how has it
developed since?
I started EcoBalance in 1997. I had lost my job as a sustainable design research officer at RMIT University in Melbourne and I needed a new job. I had noticed a growing interest for sustainable design from interior designers and architects and I thought it needed to expand. Today I’ve got a full time job as a lecturer but I still pick and choose project.

18. a) What sort of projects did you normally do when working full time with EcoBalance?

Because sustainable design within interior design and architecture is a niched area, I had to take other jobs as well. Such as; domestic waste projects, designing a system for garage sale called “second hand Saturdays”, exhibitions and other projects. It was very diverse and not always what I had intended.

b) What sort of projects do you normally do now within EcoBalance?

I pick and choose projects within interior design and architecture to do out of interest

c) What sort of projects would you not do?

Tobacco companies for example and companies which don’t have an honest interest in sustainability issues.

6. a) Do/did you contact your clients or do/did they come to you?

They come to me and it spread through word of mouth.

b) How do/did you market your business? (If you don’t have to, how would you if you did?)

I’ve got the website. I did some promotion work at the start by sending out information sheets on recycled paper with different themes, eg. waste, and then a quote by someone famous at a large organisation. Then I mentioned the benefits (e.g. financial) with green design and the services I offered. I also went around to architects and Interior designers and did power point presentations for them, where I encouraged them to ‘think out of the box’ etc.

19. How do you convince people your work is worthwhile?

During the presentations mentioned above I tried to convince them about how ‘thinking out of the box’ can really open up for very creative thinking and new ideas.
20. Give examples of new technology/innovation (incl. materials) which interest you.

I am very interested in material in general. It doesn’t have to be a produced as an environmentally friendly material to be interesting. Durable and lightweight product can easily replace a problem product.

21. Which manufacturing industry do you consider most harmful to the environment? Why?

The textile industry has a strong environmental impact; the raw material extraction (natural as synthetic), the manufacturing process and shipping all over the world. All this demands an incredible amount of energy and creates toxic waste. Not to mention the poor conditions for the people working in many of the factories.

22. What manufacturing companies do you consider a good model for sustainability? Why?

Interface and Designtex because of their radical approach to change and their risk taking.

Herman Miller for their many years of devoted research within environmental issues.

23. a) Can companies compete and be environmentally responsible?

Yes, definitely.

b) What are the main reasons for failure?

1. Lack of marketing. Many companies which produces and sells “green” product rely on the product to market itself. It might be a great product but one can’t exclude design and marketing.
2. ‘Green wash’*. Some companies are so afraid to share any information about their product in fear of being copied, that potential client can’t get enough information about the product.

* ‘Green wash’ is the exaggeration of ethical or natural credentials and often manifests itself in packaging, advertising and PR campaigns.

14. Why in your opinion, do people reject sustainability in industry?

Fear of loosing business, fear of the unknown, fear of not knowing. Designers mostly reject it because it’s not forced on them and they lack of knowledge. They also fear the unknown and feel constraint.
When working as a consultant I was shocked to find out that designers are not creative people, they are followers!!
When I was a design student I went to the extreme and didn’t look in books or design magazines at all to be inspired, which I now realise wasn’t the best way. But I still think that if you are to be inspired by others you should look at HOW they do things and not WHAT they do. Designers need to step out of their safety!

15. What would give sustainability more credibility?
Famous designers need to show the way. Renzo Piano and Norman Foster are starting to bring up these issues but they are not following through. Drough design is doing a good job in this area. Government need to be incentive and get companies researching to be able to develop new products for the market for reasonable prices.

16. What standard/certification is meaningful?
All “eco labelling” need to be checked by an outside organisation such as Australia EcoLabeling Association (AELA)

17. Can you with reasonable certainty quantify what will happen if industry continues as it is?
Not really. The world is chancing and I don’t think it’s for the better unfortunately. We will create other inventions to deal with the problems.

18. What legislation changes need to take place to improve companies’ attitude?

19. Which country has come closes to ‘get it right’? How?
Germany and the Netherlands. They’ve got governmental legislation for things like product stewardship. I don’t know if it’s working or not but they are making a strong statement and saying: We are doing something!

Cities in Brazil Coronchiva and Bobota are doing interesting and radical changes in the public transport area.
Advertising and Marketing

There are marketing firms which specialises in serving environmentally and socially conscious organisations, helping them to reach more of their customers online more effectively.

These marketing firms can help you reach and influence more “values-based” consumers and organisations online and get better Internet marketing results.

To find value-based potential clients following advertising and marketing channels might be recommended:

Pay-per-Click Advertising (PPC)

PPC advertising has become very popular the last couple of years, especially through major search engines. As its name suggests, you pay only for the actual clicks on your ad, which is generally seen by a very targeted audience.

Values-Based Web Portal Advertising

There are hundreds, maybe even thousands of Web portals of various sizes that serve the interests of environmentally- and socially-conscious audiences. Care2 is one example of such a values-based portal for individuals, GreenBiz.com is an example of one for businesses. Some are extremely targeted by interest or industry.

The values-based portals are the websites that these conscious consumers will visit regularly, develop a greater loyalty to, and recommend to their family, friends and colleagues. Many offer very cost-effective online advertising opportunities that can yield outstanding results.

Permission-Based Email Marketing

Permission-based email marketing* reaches your customers and others most likely to be interested in what you offer. When done properly, it can be one of the most affordable, powerful, and cost-effective ways to obtain the results you want, while building customer relationships and loyalty.

*Permission-based email marketing involves first receiving permission from the recipient before communicating with her by mass email. Such permission can be received directly or through a trusted third-party resource. It also involves making it as clear and simple as possible for the recipient to stop further email communications.

If you have got a product and you want to inform a particular group of values- based costumer, there might be a good idea to take help from a marketing firm who deals with this particular kind of marketing.
A Good Example of “Green” Marketing Consultants

A good example of consultant agencies focusing on sustainability is J. Ottman Consulting in New York. J. Ottman Consulting advises businesses, governments and other organisations about strategies for reinventing products and business models, and for marketing environmental initiatives to mainstream consumers and enlightened businesses. They are the primary organisers of and driving spirit behind “Design:Green”, a groundbreaking initiative aimed at eco-design as a new source of innovation and competitive advantage.

Design:Green is an initiative of J.Ottman Consulting focused on sustainable product design education. Our mission is to transform business in the United States by creating educational experiences that inspire the development of products that are at once sustainable, innovative, profitable, and able to compete in the global marketplace.

Initially created under an EPA Grant, and endorsed by the IDSA, Design:Green delivers curriculum and opportunities for multi-disciplinary interaction to designers, strategic planners, marketers, R&D (research and development), Engineers and others involved in new product development.

For smaller business it’s is not always possible or necessary to involve a consultant, but I wanted to show an example of what they do. Kirsty Mate and John Gertsakis managed to run their business without any external consultants.

Motivation

Meeting and interviewing Kirsty mate, John Gertsakis and Cameron Tonkinwise and reading about Edwin Datschefski, William McDonough’s and Michael Braugart has been very inspiring to me. Mostly because I can see how these successful people in this niche are really fired up by what they are doing, - they never seem to loose interest, even when things are tough! This made me realise the importance of motivation and the connection between motivation and success. You can’t motivate others if you are not motivated yourself. Therefore I have chosen to spend some time on this subject.

Motivation is a word which meaning may differ from person to person. In the book ‘The Tao of Motivation’ the author Max Landsberg addresses the word motivation like this: the skill of energising yourself (or someone else) to accomplish something positive. He explains that it involves a series of steps with each one reinforcing the next: creating a vision and impetus, cultivating confidence, taking the plunge, observing outcomes and overcoming obstacles, responding constructively to feedback…which links back to cultivating confidence.
• The **vision** must engage all senses, and lead to practical plans.
• The **impetus** to change needs to harness deep-seated urges.
• Tend **confident** as a garden; seed it feed it, weed it.
• **Taking the plunge** can be pleasant, but is sometimes daunting: cultivate a voice to urge you at the moment of truth.
• **Outcomes** should be planned, but not to much; plans are irrelavent, but planning is everything. Seek serendipity.
• Effectively **responding to feedback** requires that you script constructive self-talk, and monitor your systems of beliefs.

In his book Landsberg summarises motivation in a five points, which I find very interesting.

1. **To motivate others you need to be motivated yourself.** If you can’t get inspired about your current role, then change to a role which does excite you, and there your excitement will motivate others.

2. **Focus on motivating the other person in a specific area.** If someone is motivated in a few specific areas of their life, they’ll soon start to feel motivated about life in general.

3. **Be an artist, not a lecturer.** Much of motivation is about getting someone to engage with an image of success. You have to use your artistic skills to conjure up a really compelling picture of what that person, or team might achieve. And of course, each artist needs to know his or hers audience – the vision you develop for one someone needs to engage their personality.

4. **En-courage.** Interesting word. Give them courage. To do this, praise often helps!

5. **You need to pace yourself for a marathon, not a sprint.** It’s unlikely that you’ll motivate someone in an instant.

Naturally, this all applies to motivating yourself as well as motivating other people.

"**Motivations are the foundation for what you manifest in life, and if your motivations are based on fear and limitation, you are going to create more of that. If on the other hand, what you go for is motivated by your heart, by your true inner power, you’re your flow towards what you love will be an effortless joy**"

The above statement is from an article by the author and "creative development master” William Whitecloud.

I believe that if your vision is connected to your values, it is going to make the journey towards your goal easier. It will be easier to be motivated by your vision. Take a moment to think about what your values are. What do you want to create in life? Personally I value nature, independence, balance, peace and sculpture very high. I have decided to follow my vision based on my values and I believe it is going to lead me to where I want to be. I don’t how exactly it is going to happen yet, but by taking steps towards the goal I put myself on the path.
The following words by the author Paul Arden has inspired me: “It’s not how good you are, it’s how good you wan to be” in his book with the same name he writes:

You can achieve the unachievable.
- Firstly you need to aim beyond what you are capable of.
- You must develop a complete discard for where your abilities end.
- Try to do the things that you’re incapable of. If you think you’re unable to work for the best company in it’s sphere, make that your aim.
- If you think you are unable to be on the cover of Time magazine, make it your business to be there.
- Make your vision of where you want to be a reality
- Nothing is possible.

“Never believe that a few caring people can’t change the world – for indeed that’s all who ever have.”

Margret Mead
Conclusion

There is a lot you can do as a designer to take a route towards sustainability. There is a lot of information available for designers who want to and to take a holistic approach to what they are creating and make a different. A few of them have been mentioned in this report. If you want to make a different it is possible.

Having a small firm or perhaps working as a freelancer it might not be possible to use any kind of marketing for reaching the more “values-based” clients for your business.

In this case, I believe that sticking to your values and find out from there what you believe this certain product/service to represent. It is normal for designers to feel a bit “trapped” by the client’s wants, needs and budget and he/she finds it hard to incorporate thoughts about the environment. I had a meeting with the director of ‘D3 Design’ in Sydney David Francis, and this was definitely the case for him. We discussed that to certain clients it’s better to include words like longevity, good quality and classic in a presentation rather than eco, green and environmentally friendlier. One has to “read” the client and find out what the best way to present your sustainable design ideas, - You have to “speak their language”.

Green thinking is an opportunity to integrate one’s values into the workplace. Creating products that are more in sync with nature allows one to personally contribute to environmental cleanup and help ensure a more secure future for our children.

If there is something you believe, get involved! Collect as much information as possible. Participating in networks and organisations are good ways of gathering more information and also to get in contact with likeminded people.

What you can do as a designer is to look in to your heart and feel what it is that you want to create in life. As William McDonough says: “What are our intentions for our children, for the children of all species, for all time?”

A mind once expanded never goes back to where it was. We can offer the consumers the prospect of healthier, more fulfilled lives, and the power to make the world a better place.

“The world will not evolve past its current state of crisis by using the same thinking that created the situation.”

Albert Einstein

Thich Nhat Hanh (pronounced Tick-Naught-Han) is a Vietnamese Buddhist monk. During the war in Vietnam, he worked tirelessly for reconciliation between North and South Vietnam. His lifelong efforts to generate peace moved Martin Luther King, Jr. to nominate him for the Nobel Peace Prize in 1967. He lives in exile in a small
community in France where he teaches, writes, gardens, and works to help refugees worldwide. He has conducted many mindfulness retreats in Europe and North America helping veterans, children, environmentalists, psychotherapists, artists and many thousands of individuals seeking peace in their hearts, and in their world.

I would like to finish this report with a few very wise words by Thich Nhat Hanh.

Thich Nhat Hanh's teaching:

*If you are a poet, you will see clearly that there is a cloud floating in this sheet of paper. Without a cloud, there will be no rain; without rain, the trees cannot grow; and without trees, we cannot make paper. The cloud is essential for the paper to exist.*

*If we look into this sheet of paper even more deeply, we can see the sunshine in it. Without sunshine, the forest cannot grow. And so, we know that the sunshine is also in the sheet of paper.... And if we continue to look, we see the logger who cut the tree and brought it to the mill to be transformed into paper. And we will see wheat. The logger cannot exist without his daily bread, and therefore the wheat that became his bread is also in this sheet of paper. The logger's father and mother are in it too.*
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**Interviews**
- Cameron Tonkinwise at UTS, Sydney
- Kirsty Mate, UNSW, Sydney
- John Gertsakis, Product Ecology, Melbourne

**Networks/groups**
- Hemp hunters network
- O2