

# MESHFIELD

Sustainable Innovation

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## GREENFIELD COURSE

*A workshop series in the sustainable design and construction of the built environment for built environment professionals.*

The last two years have witnessed the beginnings of the mainstream adoption of sustainability in the South African built environment. There is increasing consumer demand for “all things green”, and a growing need amongst built environment professionals to build expertise and knowledge in this area.

**Meshfield** will be hosting a 7 part workshop series exploring key dimensions essential to the sustainable design and construction of the built environment. Each workshop/module is self-contained, but attendance of the first is required as a foundation for the following five, and the 7<sup>th</sup> is a synthesis workshop. Places are limited to 25 people per workshop to ensure dynamic, interactive learning, and training will centre around real projects in a studio-style environment. Further workshops will be offered on an ongoing basis should there be demand.

The workshops will:

- Have design at their core
- Focus on content that has immediate practical application for professionals and players in the built environment field
- Be rich in case studies, both local and international
- Include appropriate input from a range of top experts in the field in each module
- Introduce participants to useful theoretical models and cut through the “sustainability” jargon
- Engage and introduce leading edge “social technologies” and organisational tools that facilitate powerful and transformative problem solving in today’s dynamic and rapidly shifting economic climate
- Include take away material

## **THE SEVEN WORKSHOPS**

### **Workshop 1 The Big Picture**

An introduction to core concepts and frameworks including the Natural Step, *Cradle to Cradle*, Embodied energy, Gaia theory, Integral Ecology, Peak Oil, Resilience, Panarchy, and so on. This is the compulsory foundation module for the modules to follow.

### **Workshop 2 Materials & Technologies**

This module focuses on the way we make things, and introduces a dynamic and practical methodology to generate a context responsive palette of sustainable materials and technologies. It will explore a world beyond the oil economy and how this will impact on the making of the built environment, offering architecturally exciting alternatives. The concept of Embodied Energy will be explored in depth. Expert input will include some perspectives on “alternative” materials.

### **Workshop 3 Energy & “ off the grid ”**

This module covers the basics around energy, both passive and active. Participants will be introduced to the menu of options available in solar water heating, photovoltaics, wind energy and low-energy lighting products, with products being assessed by experts. Integrated systems including solar, wind and bio-mass will be explored, as will key principles and rules of thumb for passive design.

### **Workshop 4 Water & sanitation**

This module looks at water systems as a whole and then focuses on grey water and black water systems, water harvesting and recycling, and various kinds of sanitation and filtration systems including composting toilets, waterless devices, biogas digestors, reed beds and others. The impact of these systems will be assessed in both urban and rural contexts and experts in the field will raise issues and challenges. The use of water for cooling and heating will also be examined.

### **Workshop 5 Construction**

This module compares current building practice to more sustainable construction methods, examining their impact on the design process. We will examine challenges and issues involving labour, plant, detailing and site supervision through a sustainability lens. There will be a particular focus on the potentials of South Africa as an emerging economy. Expert input will include perspectives from practitioners at the coal-face.

### **Workshop 6 Contract, fees and inter-disciplinary practice**

This module will look at how sustainable design and construction begins to impact on the standard forms of contract, both between professionals and client, client and contractor, and the changing role of the principal agent. It will also examine the PROCAP work stages in relation to sustainability, and look at the impact on fee structures. International best practice will be referred to, and assessed within the South African climate, as will the increasing need to develop new ways of building inter-disciplinary practice.

### **Workshop 7 Synthesis studio**

This workshop will consolidate and synthesize learnings from the previous six sessions through application in a real project, in a studio-style process, and requires attendance of at least three of the previous modules.

### **WHO IS MESHFIELD?**

*Meshfield* is a design consultancy specializing in sustainable innovation. We integrate perspectives from architecture, urbanism, sustainable development, cultural studies, business and leadership to effect short-term profitability, long-term prosperity and global well-being. Our aim is to inspire and support human creativity, in search of an abundance of solutions that nourish a thriving planet for all.

Our core team includes Anna Cowen, architect and urbanist, John Ziniades, business and leadership development consultant, Donne Putter and Jo Rawson, architects. Our trans-disciplinary practice draws on a diverse professional network as needed to represent appropriate viewpoints, such as psychology, anthropology, environmental and behavioural economics, the ecological and physical sciences and systems dynamics.

The workshops will be lead by **Anna Cowen** (PrArch BArch MPhil MIA), an architect, urbanist and sustainability practitioner with 20 years interest and experience in the sustainability field. She will be supported by appropriate experts through the course.

Anna graduated from the University of Cape Town with a BArch in 1994, having gained a distinction for her final design thesis, an urban “green” building. She founded her own architectural practice in 1995, at times working either in partnership or association, and has designed and built a diversity of projects. In 2003 she completed an MPhil in Sustainable Settlement, focusing on public participation processes and the production of public space. She taught design at the School of Architecture, Planning and Geomatics at the University of Cape Town for an eight-year period, and was engaged in the development of elective studios and interdisciplinary projects between the Architecture and Engineering schools.

Recently built and published work includes:

- **The Tsoga Environmental Centre**, Samora Machel (Design Architect)  
(An ARG design project designed by Anna Cowen Architects and Vernon Collis and Associates)  
(Holcim Sustainability Awards – global finalist, 2006, and CIA Award for Architecture 2007/  
Published in Architectural Digest 2008, and Architecture SA, 2005 and 2008)
- **Greenshops**– A rural financial services centre in Centani, Eastern Cape  
(In association with Vernon Collis)  
(Published in Jan/Feb 2009 Architecture SA)

Other recent work includes a series of workshops for **Woolworths** to educate their suppliers around green building methods. (In association with Vernon Collis.)