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

The last few 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 CPD accredited 3-day workshop exploring key dimensions essential to the sustainable design and construction of the built environment. Places are limited to ensure dynamic, interactive learning, and training will centre on real projects in a studio-style environment.

The workshops are targeted towards Architects, Planners, Urban Designers, Quantity Surveyors, Engineer's, Contractors and students

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, additional input from experts in the field
- 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 workshops are structured as a series of INTERCONNECTED modules and cover the following material:

The Big Picture

An introduction to core concepts and frameworks including Limits to Growth, The Natural Step, *Cradle to Cradle*, Embodied energy, Gaia theory, Integral Ecology, Peak Oil, Resilience, Biomimicry and Whole Systems regeneration. This module provides the foundation for the following modules.

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 so-called “alternative” materials.

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. Integrated systems including solar, wind and bio-mass will be explored, as will key principles and rules of thumb for passive design.

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 digesters, reed beds and others. The impact of these systems will be assessed in both urban and rural contexts.

Construction, Contract, Fees and Inter-disciplinary practice

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. We 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, as well as exploring the increasing need to develop new ways of building inter-disciplinary practice.

Synthesis

The final module will consolidate and synthesize learnings from the previous sessions through application in a real project, in a studio-style process.

WHO IS MESHFIELD?

Meshfield is a design consultancy committed to co-creating inspiring and innovative ways to live more sustainably on our home, planet Earth. We integrate perspectives from urbanism, architecture and permaculture, organizational development, business and leadership to effect short-term profitability, long-term prosperity and global wellbeing. Our work is informed by Integral theory, a powerful approach that brings the often-missing yet vital dimensions of psychology, culture and spirituality to sustainability initiatives, ensuring more robust, resilient and context responsive strategies and solutions.

Our core team includes Anna Cowen, architect and urbanist, John Ziniades, business and leadership development consultant, Donne Putter and Jo Rawson, architects and Inge Vermaak, graphic and interior designer. Our trans-disciplinary practice draws on a diverse professional network as needed to represent appropriate viewpoints, such as 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 throughout 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

(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), as well as ongoing consulting and training with various corporate entities around Whole Systems Sustainability.