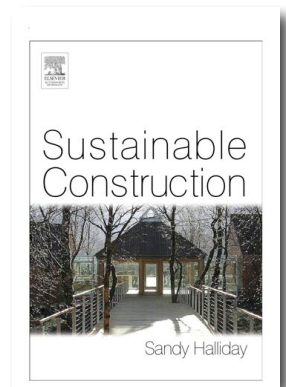


Sustainable Construction? Mind the Gap!

Sandy Halliday, Principal, Gaia Research www.gaiagroup.org
www.gaiagroup.org/Downloads/hallidaycv.pdf



There is extensive effort across fields of manufacturing, transport, resources, communities, ecology, pollution and health to achieve UK and international targets for sustainable development. Buildings are a critical element in the UK sustainable development strategy, yet contemporary buildings are primitive systems. There are 22million households plus offices, schools and recreation buildings and the majority are vastly more inefficient, more expensive, more polluting, more undermining of health, business, ecology and communities than they might otherwise be. They are bigger and less flexible than they might be and overly reliant on technology and energy.

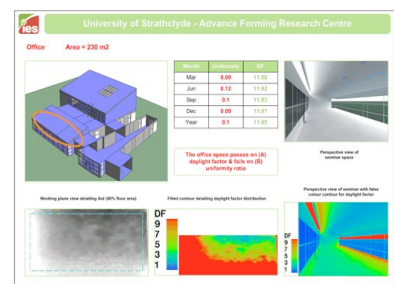


The legislative and design context is unhelpful at the leading edge, and perhaps two decades behind best practice. Instead of seeking best value, healthy, efficient buildings our government and policy initiatives are looking for one-dimensional margin chasing technical fixes. So, it is now more important than ever to appreciate and communicate that sustainable building design is achievable and can deliver real benefits. **These** benefits of good building performance will be increasingly apparent as economic factors and instruments continue to penalise and reverse

unsustainable trends. How can future development of land, buildings and the economy conform to sustainable development principles? Not by business as usual.

Background

Sandy initially worked on design of socially useful products. She moved into the building sector as a research manager to develop & disseminate information on resource efficient & clean technologies, and benign processes, products & materials. From her earliest involvements with the built environment sector she identified the need for building design to respond to stringent resource economy and to user needs & aspirations for healthy buildings and sustainable communities. She established Gaia Research in 1996 to develop sustainable solutions for the built environment. She has increasingly been able to identify and bridge gaps between architecture and engineering in particular in process issues, passive design and building physics. She was the Royal Academy of Engineering Visiting Professor in Engineering Design for Sustainable Development in the School of Architecture at the University of Strathclyde, where she taught and tutored architects, civil, environmental and mechanical, engineers to improve their sustainable design competence.



Sandy's portfolio embraces research, design, evaluation, dissemination, teaching and facilitation. She works in collaboration with architectural, engineering, urban design and landscape practices in responding to the challenge of making sustainable buildings and places. Her work extends to policy guidance for government and private sector clients; and a training and a hand-holding service to public and private sector clients and design teams to deliver their aspirations for affordable, sustainable buildings and places This first hand knowledge is a vital aspect of her freshness in teaching and in identifying research opportunities.



Publications

The experience gained was developed into a modular based interdisciplinary design course Sustainable Construction CPD (Elsevier in 2007). The Green Guide to the Architect's Job Book (RIBA Publications 2007) is a process guide for clients and designers Others publications include design & construction of sustainable schools, animal architecture, low allergy housing, dynamic insulation, solar air-conditioning and design for toxic chemical reduction in buildings.