

# Designing Sustainability

Making radical changes in a material world



Stuart Walker



# Designing Sustainability

What is the relationship between design, sustainability, inner values and spirituality? How can we create designs that provide a convincing alternative to unsustainable interpretations of progress, growth, consumerism and commercialism? Building on the arguments first advanced in his widely acclaimed books *Sustainable by Design* and *The Spirit of Design*, Stuart Walker explains how we can achieve the systemic changes needed to address the challenges of sustainability.

Challenging common assumptions about the nature of our contemporary material culture and its relationship to human flourishing, the author introduces approaches to design that draw inspiration from Nature, summon the human imagination and create outcomes which are environmentally responsible and socially just, as well as meaningful and enriching at a personal level.

Offering a unique and original contribution to this vital debate, *Designing Sustainability* is destined to become essential reading for students on courses in design and sustainability and for design practitioners looking for a deeper, more meaningful basis for their work.

**Stuart Walker** is Professor of Design for Sustainability at Lancaster University and Emeritus Professor, University of Calgary, Canada. He is the author of many award-winning publications and his propositional designs have been exhibited at the Design Museum, London, across Canada and in Europe.

‘Quite simply, this is the best book on the key issues that engage us – values, culture, the environment, beliefs, making a better world – that I have ever read. It is utterly original, deeply rooted, supremely pragmatic and splendidly visionary. You will not see anything in our physical, designed, created world in the same way ever again.’

**Martin Palmer**  
**Secretary General, Alliance of Religions and Conservation (ARC)**

‘A seminal contribution to the profession of design that begins with the heart and mind of the designer and the values most important to human flourishing. *Designing Sustainability* aims to ground the practice of design in a vision of a civilization worthy of being sustained. The message is timeless.’

**David W. Orr**  
**Paul Sears Distinguished Professor of Environmental Studies and Politics, Oberlin College, Ohio**  
**Author of *The Nature of Design* and *Design on the Edge***

‘In the bustle of what counts for progress, too often we forget to imbue our objects, places and transactions with the meaning that makes life worthwhile. Joyfully and patiently Stuart Walker shows us how to design spiritual satisfaction into the everyday so that we, and the Earth we inhabit, may be whole again.’

**Sara Parkin**  
**Founder Director and Trustee, Forum of the Future**

‘Professor Walker gets to the essence of design for our future, offering a wake-up call for designers and consumers alike. His *Quadruple Bottom Line of Sustainability* turns upside-down the emphasis on design for profit and mass consumerism. He calls for fundamental change and asks us to “*measure our contribution to sustainability not by how much we can do, but by how much we can do without*”. A thought-provoking and contemplative book that should be on every designer’s reading list.’

**David Constantine MBE**  
**Co-Founder, Motivation**

‘In an age of all-encompassing artifice, *Designing Sustainability* challenges designers to re-think how their discipline understands nature. The originality and import of this book lies in how the author proposes ways of using design as an almost individual means of helping us re-engage transitively and unsentimentally (at deeper levels) with the natural.’

**Clive Dilnot**  
**Professor of Design Studies, The New School for Design, New York**

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*Making radical changes in a material world*

**Stuart Walker**

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**To Bill Perks**  
for his vision and mentorship

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# Acronyms and Abbreviations

BCE	Before the Common or Christian Era
CE	Common or Christian Era
CO <sub>2</sub> e	Equivalent Carbon Dioxide
GDP	Gross Domestic Product
WTO	World Trade Organization

# 1

## Introduction

... brush the sand – and all that you have seen  
Has gone, as though the marks had never been.  
Such is the solid world we live in here,  
A subtle surface which will disappear.

Farid Ud-Din Attar

*Designing Sustainability* is concerned with creative approaches to design that are rooted in understandings of being human; a type of design that grows out of contemplation, reflection and quietness. These are essential ingredients of the examined life and of spiritual development, and a vital aspect of creativity. Inner values and spiritual wellbeing have long been associated with the natural world. For centuries, in both Eastern and Western traditions, Nature has been seen as a source of spiritual nourishment and something to be honoured and cherished. *Designing Sustainability* refers to ways of designing that emerge from solitude, from thinking deeply about something, from spending time in Nature, being heedful of its rhythms and drawing inspiration from its presence. In this sense, these chapters are implicitly about invoking radical changes; one definition of the term radical being a considerable departure from current norms, and another being related to root principles. Both definitions apply here – the purpose

being to summon the human imagination and the creative calling and to reflectively develop design propositions that are in harmony with the natural environment, an ethics of virtue and our spiritual selves.

Such design work will be often out of kilter with current mores and trends. Dominating themes of economic expediency, product proliferation, technological urgency and the 'global race' for growth<sup>1</sup> are hardly compatible with more solitary, introspective modes of being. Similarly, short-term political agendas and ill-considered enthusiasms that direct and constrain academe, and that demand impact, value for money and utilitarian rationales tend to put the cart before the horse. Burdensome requirements for 'real world' impact, bureaucratic compliance, targets, measurable evidence and collective work practices can effectively stultify reflection, imagination, creativity and innovation. Such impositions emphasize rationality, analytical thinking and accountability, but are oblivious to vocation, trust, contemplation, intuition and the numinous.

Yet, despite these passing avidities there remain quieter, more solitary ways of working that still allow us to learn from others and, in turn, to make a contribution. Calmer modes tend to be more conducive to the iterative task of absorbing the considered views of others, drawing connections between seemingly disparate ideas, and generating imaginative concepts. Reading widely, studying creative works, reflecting, writing and sketching – all these are best done alone. Solitude benefits concentration, prevents diffusion of energy on matters unrelated to the task in hand, and can spur creativity and innovation.<sup>2</sup> The creative insights such ways of working may yield will be what they will – they cannot be conjured to serve particular, predetermined, extrinsic ends, whether those be economic, political or something else. Besides, that should not be the concern of academic inquiry, creativity and learning – these things must be pursued for their own sake, as intrinsic goods.

2

Hence, this form of design is inherently interrogative. It takes us down a path that challenges conventions, probes assumptions and, in a spirit of inquiry, poses possibilities. It is an approach to design that attempts to recognize a wider spectrum of human reality and potential than that offered – for too long – by a constricted but verifiable materialism. Under the harsh but narrow spotlight of abstract rationalization, one and one inevitably and unswervingly make two. The self-evident correctness of the formula bears an intractable logic. One and one make two. We know it. We accept it. We use it. But that does not make it true. In white, windowless corridors, where partiality constructs a quantified reality, one and one always make two. But it is a pale and barren coupling within a manufactured mirage of reality.

Under the warm and wide embrace of a summer sun, one and one almost never make two. In the world we see around us, in the natural world, abstracted rationalizations do not exist. Here we see abundance – where one and one make three, four, five, hundreds and thousands. It is a world aglow with fecundity and fullness. A world of beauty and mundane miracles. This is the real world and, as Papanek once told us, we must design for the real world.<sup>3</sup> This world knows

nothing of isolated objects of desire; nothing of materialization detached from provenance or consequence. To design for the real world we have to step back from ingrained conventions and see the world from a broader perspective.

When is a tree? The question might seem bizarre, but it invites us to consider our assumptions about the nature of things. Is a tree the acorn, the sapling, the fully grown oak, or the decaying home of insects and fungi on the forest floor? Is a tree a thing or is it a term we use to signify a particular concentration of growing, maturing, flourishing, dying and decomposing? This is the way of Nature and the way of all material things, whether natural or human-made. We can ask a similar question about our manufactured world. When is an electronic product? Is it the thing we desire, we purchase, we hold in our hand and use? Or is it a mining site with drilling and explosions and machinery, spoil tips, fumes and dangerous conditions? Is it factories and labour exploitation, plastic presentation boxes and shiny novelty surrounded by hyperbole? Or is it discard and landfill, toxicity and leaching? Or is it simply the next model? When we consider trees and products in terms of their provenance and consequence rather than as isolated, static things, we begin to see them in a different light, and it quickly becomes apparent that the tree and the electronic product are fundamentally and inextricably linked – originating from the same source and destined to return to that source after all too brief a period. With apologies to Keats,<sup>4</sup> a thing of beauty is no joy forever ... it is but a firefly flashing in the dark and endless night of eternity.

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In this book I attempt to make a contribution to the debate about *designing sustainability* through an interwoven process of thinking and doing, writing and designing. These activities are mutually informative and intimately related, and from them arise, on the one hand, discussions about intentions, priorities, ways of thinking about processes and products, and establishing a basis for designing and, on the other, a series of physical objects. This combination of outputs seems to me the most suitable way of advancing our thinking in design. Design is a discipline that depends on an intimate and thoughtful immersion in the creative process. It calls on the imagination, subjective judgements and a synthesis of ideas through deliberation and practice. Without this critical, practice-based manifestation of ideas through designed artefacts it is, quite simply, not design. Of course, we can and do have excellent critiques of design, and theoretical discussions about design and its products. But it is important to recognize that while theoretical understandings and ideas can inform the creative design process, they themselves are also informed by it. Therefore, to advance the discipline, we have to engage directly in the creating process – a process in which one strives to fuse diverse abstractions into a concrete and aesthetic whole. By engaging in this demanding and frequently frustrating activity we gain understandings and insights, which find their way into the designed artefacts and, on reflection, can find their way too into the developing direction of the theoretical ideas.

In addition, compared to the patently unsustainable direction that much design has been taking for decades, artefacts and imagery that demonstrate alternative,

more appropriate directions can have a very positive effect, not least by suggesting a vision of facility and capability and thus reinforcing a sense of self-determination. In a study about imagery related to climate change, for example, O'Neill *et al.*<sup>5</sup> found that images of energy futures, such as wind farms and solar panels, and products related to lifestyle choices, such as electric cars, tend to support feelings of self-efficacy in the behaviours and practices people undertake in relation to the environment, whereas images of climate change impacts can undermine such feelings by making people feel helpless in the face of such enormous issues.

In Chapter 2, *The Object of Nightingales*, I discuss a basis for design values that is congruent with age-old understandings of human meaning as well as with contemporary notions of sustainability. A critique of naturalistic materialism and its relationship to unsustainable interpretations of progress and growth is followed by a consideration of practical, social and personal meaning and the relationship of these to human values. A basis for meaningful values stemming from the world's wisdom traditions and thence a basis for ethical judgement are related to design decision-making. Some common, but ethically questionable, unsustainable design practices are reviewed – including product transience and distracting modes of use. Ethical, sustainable design decision-making is characterized, which includes notions of moderation, the appropriate place and role of products and the justification for their production in the first place. The result is a basis for product design and production that aligns more closely not only with sustainable principles, but also with deeper, more enduring understandings of human flourishing.

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Chapter 3, *Design on a Darkling Plain*, is a practice-based design exploration that looks at the relationship of contemporary products to issues of sustainability and enduring meaning. In particular, the secondary or extrinsic value of products is considered, which includes technological advancement and business development. Instrumental value is also addressed, along with a product's intrinsic value – or lack of it. This leads to a set of general propositions for countering triviality and waste and increasing intrinsic value, and some of these propositions fall under the remit of design. Against this backdrop, product meaning and intrinsic value are explored with special reference to the philosophy of E. F. Schumacher as well as various critiques – from Arnold in the nineteenth century to Orr in the twenty-first – and a case is made for objects of design, rather than art, that have no practical utility but whose function is concerned with what might be referred to as 'inner work'. These arguments and ideas are translated into a series of propositional objects – questions in form – that ask how matters of ultimate concern, which are inherently ineffable, might be appropriately expressed as contemporary, contemplative artefacts.

The creation of *Contemplative Objects*, the subject of Chapter 4, is offered as a means of reflecting upon today's mass-produced version of human-made material culture, and particularly technological products that are ostensibly for human benefit. Through a research methodology that combines critical inquiry

with practice-based conceptual design, the assumptions and conventions of our current modes of product development, production, use and disposal are contextualized within the overarching ideology in which they exist. Selected subordinate objects – accessories that serve primary products such as mobile phones, laptops and printers – are stripped of their potentially influential brand identity and other persuasive encumbrances and are included as elements within panel compositions. These aesthetically considered arrangements invite reflection and the seeking of meaning. When accompanied by additional information and arguments, such objects offer a creative, discipline-appropriate means for reflecting upon the practices of product design and the kinds of objects that result from them, as well as alternative directions for a more sustainable future.

In Chapter 5, *Design and Spirituality*, I discuss contemporary calls for including spiritual considerations in our understandings of sustainability. These considerations are contextualized against the backdrop of modernity and the roots of design and manufacturing practices, as well as more recent design developments that focus on social innovation. An exploration of the meaning of spirituality and its relationship to worldviews, human needs and creativity, leads into a reflection on its implications for design. This results in a direction for design that not only brings to the fore ethical and environmental responsibilities, but also enduring notions of human wisdom.

Chapter 6, *The Narrow Door to Sustainability*, begins with a rationale for extending design's ambit beyond materialist and consumerist values in order to address today's pressing sustainability concerns. The contributions and limitations of eco-technologies and service solutions are examined within this context. The case is made that, first, a less consumptive path requires a more fundamental shift in priorities and values, and second, the basis of this shift must be established in deeper understandings of human meaning. The difficulties of including traditional, primarily religious, expressions of inner values in the public realm are identified. However, emerging trans-religious and/or supra-religious forms offer an opportunity for restoring notions of profound meaning and wisdom in our workaday endeavours. This provides a grounding for design development and the creation of a supra-religious spiritually useful artefact, which offers a tangible, creative example of a post-materialist direction for design. In the process, contemporary sustainability concerns are embraced.

In Chapter 7, *A Form of Silence*, I suggest that, to deal more effectively with today's environmental and social challenges, a new attitude or outlook has to be developed. In this endeavour, design can make an important contribution by creating conceptions of material 'goods' that are based on quite different priorities from those that are common in contemporary consumer societies. Design explorations are taken a stage further by developing a foundation for a contemplative object that is non-utilitarian, non-symbolic, supra-religious and, importantly, non-made. It can also be regarded as sustainable, both in terms of the ethos underlying its proposition and in terms of its physicality. After identifying some of the primary obstacles to change, various avenues for effecting change

are considered, which can be extrinsic or intrinsic. Intrinsic avenues include the development of a changed outlook and this development is explored in terms of its implications for design. An exemplar object is proposed that expresses something of this new outlook.

Having looked in some detail at values, attitudes and the creation of non-utilitarian, contemplative objects, Chapter 8, *A New Game*, returns the discussion to the functional object. The chapter begins with a consideration of the context and story behind objects, and the relationship of these to meaning and values. As a basis for evolving constructive, positive directions for design development, current preoccupations that drive consumerism, growth and unsustainability are critiqued with respect to ethical understandings, particularly *virtue ethics*. The vital link between the natural environment and our spiritual wellbeing, a link recognized in all societies and cultures, is illustrated through a series of evocative examples. These understandings allow us to contextualize contemporary design and see it from a different perspective. Here I use the Bauhaus chess set, designed by Josef Hartwig in 1923/24, as an epitomic example of the still dominant modernist approach to contemporary design. An alternative, sustainable approach is posited, which yields a propositional object, the *Balanis* chess set. This design is an attempt to respond through form to a larger vision of human reality than that offered by modernist, materialist perspectives. The Hartwig and *Balanis* chess sets, both vehicles for exploring design ideas and directions, serve as tangible demonstrations of contrasting design philosophies and their differences are illustrated and compared. The provenance of the *Balanis* chess set is dealt with in some depth in order to exemplify the origins of meaning and value in design, and their relationship to Nature, locale, process and spiritual wellbeing.

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Chapter 9, *Epilogue*, reflects on the attitude that *designing sustainability* requires and nurtures – an attitude that sets aside inquisitiveness and acquisitiveness, and is more accepting, yielding and composed. This supports design directions in which the natural is allowed in and resides with the human-made in balanced accord.

## 2

# The Object of Nightingales

design values  
for a meaningful  
material culture

... such madness is given by the gods to allow us to achieve the greatest good fortune; and the proof will be disbelieved by the clever, believed by the wise.

Plato

One evening in 1942, deep inside a wood in the southeast of England, a BBC sound engineer was recording the song of the nightingale. Coincidentally, this was also the night of a British bombing raid on Mannheim, and while the sound engineer was at work 197 bombers flew overhead on their way to Germany. The recording begins with the song of the nightingale and continues as the drone of the aircraft slowly increases, becoming a deafening roar as they pass directly above, before steadily decreasing and eventually fading away; throughout the recording the nightingale sustains its song.<sup>1,2</sup> It is a poignant and thought-provoking piece. The high, trilling notes of the nightingale are natural and unaffected, and to the human ear, pure, aesthetic and sublime. By contrast, the ominous cacophony of the bombers is the sound of human-made war technologies – the manufactured machines of conflict and purposeful destruction. Significantly, we can clearly identify what the bombers are for; their purpose is combat, damage and discord. But we cannot say what the nightingale is for; we

cannot think of nightingales in instrumental terms. The nightingale is not a means to some other end, it is an end in itself; it simply is.

Robert Louis Stevenson also wrote of the nightingale, suggesting that,

a remembrance of those fortunate hours in which the bird has sung to us ... fills us with such wonder when we turn the pages of the realist. There, to be sure, we find a picture of life in so far as it consists of mud and of old iron, cheap desires and cheap fears, that which we are ashamed to remember and that which we are careless whether we forget; but of the note of that time-devouring nightingale we hear no news.<sup>3</sup>

The nightingale has a long history of symbolic associations with creativity, the muse, Nature's purity and, in Western spiritual tradition, virtue and goodness.<sup>4</sup> Here, these various symbolic associations come together in a consideration of creative design and its relationship to human values.

8

I begin with a critique of our current predicament within a dominant ideology of naturalistic materialism, which judging by its outcomes appears to be seriously flawed in terms of its ethical and environmental implications. This widespread ideology, combined with the sophisticated capabilities of scientific and technological advancement, a corporate aspiration of unbridled profit and growth and an undefined, yet largely relativistic ethical position, has created a potent recipe for human exploitation and environmental destruction. I suggest that any meaningful notion of sustainability must be grounded in a firm foundation of those values that are common to all the great wisdom traditions, both religious and non-religious, as well as to contemporary progressive forms of spirituality,<sup>5-9</sup> and that through adherence to such values design can make a tangible, discernible and positive difference to the nature and effects of our material goods.

## Naturalistic materialism and human values

Naturalistic materialism is an ideology strongly associated with the post-traditional understandings and philosophies of modernity and late- or post-modernity. These are epitomized by the philosophy of Nietzsche, who so emphatically dismissed traditional beliefs as mere 'idols', along with the moral values that accompanied them.<sup>10</sup> Also known as naturalism, physicalism or simply materialism, naturalistic materialism has become the overarching doctrine of the modern Western world – a world characterized by its emphasis on secularism, rationalism and industrial capitalism. Naturalistic materialism is, nevertheless, a belief system and is no more provable than the traditional beliefs it has tended to depose. As the principal ideology of modernity, its critics have included Thoreau in the nineteenth century,<sup>11</sup> Horkheimer and Adorno in the mid-twentieth century<sup>12</sup> and Schumacher in the latter part of the twentieth century.<sup>13</sup> It is related to forms of modern secular humanism in which human interests and values are based on reason, scientific investigation and experience, and where human fulfilment must be found within the physical world; the physical universe being regarded as the totality of