

Chapter 1 : THE GREEN IMPERATIVE -- Site Selection magazine, January

The Green Imperative itself lacks something in design: it covers so much that the argument is occasionally diffused. Still, Papanek is committed to his subject and becomes almost poetic when discussing Inuit and Balinese design or the necessity of integrating the ephemeral and the permanent. illustrations; 46 in color.

The significance of upholding the quality of earth, water and air, which would ensure the continued production of crops, and perhaps even increase it manifold, had been a prevalent thought in the minds of the ancient forebears of all modern nations. There is an extensive verifiable archeological record of how the husbandry practices of Egyptian, Indus, Sumerian, Babylonian, Hellenic, Roman and our own Mauryan and Gupta epochs had endeavoured to conserve water by innovations in field channels and diversion of rivers when they were in spate. Replenishment of the soil was taken up by practices like mulching and addition of manure, which are extensively used to this day. With the advent of the Industrial Age, the time-honoured tenet of sustainability lost out to the delusional optimism that machines and chemicals held out so alluringly. The expectation of exponential growth in production, with the decrease in physical drudgery, led to the untenable exploitation of natural resources. Submersible pumps made it so much easier to flood extensive fields, where river channels and river lift irrigation had hitherto provided sufficient water. The necessity of storing excess rain water was felt to be redundant as it was triumphantly imagined that groundwater resources would never run out. Synthetic molecules supplanted manures as harbingers of huge production, while chimerical pesticides rid farmers of the Biblical pestilence of locusts and rodents, and countless others. The self-sustaining diversified farming systems gave way to oceans of cereal monoculture. The Brave New World had sounded its reveille. And indeed, what an age it was! World food production galloped at a quantum rate, the granaries of Europe and North America were overflowing. The white continents could now feed the unfortunate nations of Asia, Africa and South America, which were still pitifully reliant on Mother Nature and stuck with antiquated agrarian practices, and still have enough grain left over to dump into the sea. Soon, having seen the light, the southern continents fell over themselves to adopt the ways of scientific farming. With massive groundwater irrigation, enormous dosage of nitrogen-based fertilisers and potent poisons, we became proudly self-reliant in feeding our teeming millions. A suitable analogy would perhaps be that of a sickly child being transformed into a hulking giant, after being pumped with steroids. The analogy holds, if one considers how people wake up to the damage they have caused to themselves by short-sighted pursuit of instant vitality, by prolonged steroid usage. Thus did farmers wake up to a situation where pumps coughed up sand instead of water, production started to slump, poison-resistant mutant strains of diseases and pests ran havoc through fields and people began to die after drinking water from wells that had been poisoned by pesticide run-offs. Now the world was abuzz with theories and formulations on saving whatever was left, for whoever was left, before the Armageddon. India too realised the need for action when the wheat bowls of Punjab and Haryana, the two states that had pioneered the Green Revolution, started showing signs of input fatigue on crop yields and soil-water health. This basically translated into more free power for submersibles, more subsidies for costly urea and the licence to exploit natural resources irresponsibly. It is against the bleak backdrop of decreasing productivity, increasing costs and lost fertility, that a paradigm shift in agricultural policy is an imperative. The thrust of the scheme is to meet the ever-increasing demand for food with the imperative of conserving our natural resources. It also addresses a very important issue of increasing farm income, given the constraints of decreasing farm sizes and increasing cost of inputs, by encouraging farmers to take up integrated farming. This scheme will eventually subsume all other government schemes in the agriculture sector. It is indeed a visionary approach to 10 important stated policy goals in agriculture, viz i improved seeds, livestock and fish cultures; ii water use efficiency; iii pest management; iv improved farm practices; v nutrient management; vi livelihood diversification; vii improved market access; viii markets; ix credit support; and x crop insurance. What makes this policy initiative different is that for the first time an equal emphasis has been placed on conservation, as on production and yield growth. In fact, it makes the latter contingent on the former. This policy initiative has special relevance for West Bengal as it addresses the two

very pressing concerns of the agrarian situation of this state. The primary concern is that of ever-shrinking farm sizes. This is one of the reasons that led to the large-scale exodus of farmers away from agriculture. NMSA encourages the setting up of Integrated Farming Systems, which simply means that a farmer with a limited farm plot should take up diversified farming along with staple cultivation. This entails the setting up of fruit and vegetable patches, with silvi-culture around a water harvesting structure like a pond. The pond can be used for rearing fish. Any free space can be used for setting up a poultry shed. This ensures a regular and steady income for the farmers, along with food security, during lean seasons or when the main crop fails. A lot of enthusiasm has recently been generated by an NGO working in Bankura for such farming practices. They have proved that farm incomes have increased for participating farmers, by using every inch of land like plot dividers and pond banks and sometimes even using suspended trellises over the plots. With the backstopping of a nationally funded scheme like the NMSA, such practices can be, and should be, thrown wide to become the Standard Agronomic Operating Practice. The other concern is that of rising input costs of fertilisers and pesticides, with the attendant problem of declining soil quality and water contamination. This is where NMSA gives a viable solution in the form of onfarm water management. The merits of drip irrigation have been well documented in the case of Israel, where acre after acre of fallow desert has been turned green. Reduction in water consumption due to drip irrigation varies from 30 to 70 per cent for different crops. It significantly reduces fertiliser and pesticide wastage, as the required dosage can be mixed with the water and delivered right at the root, rather than being sprinkled or broadcast all over the place wastefully. While increasing the productivity of crops significantly, it also reduces weed problems, soil erosion and cost of cultivation substantially, especially in labour-intensive operations. The reduction in water consumption also reduces the energy use that is required to lift or pump water. In fact, the large-scale adoption of drip and sprinkler irrigation can pave the way for diversified farming in a big way, while conserving precious water and conserving soil health. There are vast tracts of cultivable wastelands in the Paschimanchal region of the districts of Purulia, Bankura and Paschim Medinipur, where canal waters never reach during the driest part of the year. These regions should be adopted for demonstrating the efficacy and rationale of drip and sprinkler irrigation under the NMSA. But to do all this, the primary requirement is to convince farmers that the time has come to move away from conventional practices. And that calls for a very vigorous extension programme by the state government. We need to reach down to each and every farmer, and convince him that these ideas make sense. The prevalent practice of setting up a few scattered Demonstration Centres will not be enough. Agriculture is still the primary economic activity of this country and we will not be able to carry on if we do not do so in a sustainable fashion. Technology and policy can offer a solution, but what is needed is a will to adopt the solution and the determination to stay the course. The writer is an IAS officer and the views are his own and not those of the government.

Chapter 2 : Q&A: Gail Vittori on the Green-Hospitals Imperative - Metropolis

Asserts the belief that the power of design can influence a more responsible approach to our threatened environment. This book shows how everyone, from those at the forefront of design to the consumers, can contribute to the well-being of the planet through an awareness of design and technology. To.

Siemens Corporation talks the talk and walks the walk. Photos courtesy of Siemens How does a company that has set the environmental benchmark so high with the products they sell ensure that their own massive and far-flung operations conform with the sustainability standards they are helping other companies meet? This was the challenge for Siemens Corp. For a company so invested in selling sustainability, with a time-honored tradition of technological excellence and a more modern focus on green innovation, the issue was consistency. Basically, we wanted to be sure we were walking the sustainability walk as well as talking the sustainability talk," Kohns says. This led to the creation of an ambitious internal green buildings initiative, currently under way. To date, the company has invested in green upgrades to 90 of its older industrial facilities – modernizing heating and ventilation controls, replacing electric motors with more efficient models and retrofitting ventilators and pumps with frequency converters. Siemens will locate a new global research and development center for high-voltage switchgear engineering on the expanded site. Company officials also recently announced plans to redesign its Munich headquarters, with a goal of setting new international standards for energy efficiency and sustainable urban development. But for the universe of industrial firms that might not be as far along the green continuum, at a time when budgets remain tight, is there a value proposition beyond the goodwill and positive brand marketing for green upgrades to aging equipment and machinery? Experts respond with an unequivocal "yes. More extensive – and expensive – upgrades may come with a longer payback period: It likely will take Turkish galvanized steel producer Assan Demir three years to recoup its investment on a new-generation annealing furnace that reduces heat loss in the melting and casting processes and recovers waste heat, she notes. It can be a very quick fix with our Osram products. Emerging markets in general are not as focused on sustainability issues as developed nations are, he says. When he first raised the LEED-certification concept with the Siemens Turkey project team, he says, "They asked the question that everyone asks: Prior to joining Siemens, Taylor spent years on Capitol Hill as counsel to congressional committees focused on the environment and energy. How do you see your role as a chief sustainability officer? I was already advising the company on climate change issues, prior to the creation of the CSO role. Though I came at this from a policy background, the majority of my work now is not in the policy arena, because in the U. My focus is on working with our customers. Many want to hear about our own best practices as we green our own facilities. I also talk to our customers about how our products can help them meet their goals. What is the value in having more than one chief sustainability officer? Sustainability is part of our mission and it requires strategic oversight. But we also need a regional focus, because the landscape is different everywhere. Politics are local, and you need people with a deep understanding of local politics. Incentives can be country-, state-, and locality-specific, so we need people who are expert in their regions and in their field to stay on top of these things. Is there a difference in the sustainability mandate for your U. The mandate is the same but the circumstances vary from location to location and from facility to facility. We have committed to going for LEED certification for all of our new construction. Retrofitting older industrial facilities also is an important issue, not just for us, but for any company that operates in America, because mothballed factories make up a large portion of the building stock in the U. This is not always a possibility when you are talking about existing factories, which are often located outside of urban areas, and beyond the scope of the local public transportation infrastructure. When you talk to your customers about sustainability, what conversation resonates? The bottom line conversation always resonates. If a company does any recruiting on a university campus, anywhere in the world, the sustainability question will come up. You need to be able to show that you are doing more than just paying lip service to environmental issues, because climate change is a significant concern for the new generation of workers. What kind of sustainability bar do you set with companies in your supply chain? We are in the process of refocusing our approach here. We do

have a supplier code of conduct that incorporates a sustainability mandate. It is important for us to know that they are paying attention to their impact on the environment. But we have hundreds of thousands of suppliers. How do you determine compliance? What advice would you give companies grappling with whether and how much to green their facilities? On Renewables Investments Peter Belisle, president, project and development services group, Jones Lang LaSalle For corporate real estate managers, the world of renewable energy investments can be complex territory. Here, corporate real estate consultant and energy efficiency expert Peter Belisle, president of the project and development services group at Jones Lang LaSalle, highlights the important considerations: There is a continuity-of-operations case for renewables: Installing off-grid, renewable power sources can mitigate concerns over what happens if the power goes out. Companies have implementation options: Is it better to do it yourself and own the entire installation, or will it be cheaper to lease your rooftop or land to a third-party developer and negotiate a buy-back of the power? Incentives are important, but this is changing: Today, a reasonable return on a renewable investment is dependent on rebates, incentives and subsidies, Belisle says. With incentives, it is five to seven years. And the payback period is coming down rapidly, with the introduction of new-generation solar panels and innovations such as thin-film technology. Feed-in tariffs can reduce the payback period: Some states that require their utilities to source a percentage of their power from renewables enable them to purchase this power from third parties, such as companies that have installed solar arrays on their rooftops. States like New Jersey and Maryland are seeing increased renewables activity as companies take advantage of this opportunity. It produces equipment used to generate clean, renewable energy; it incorporates sustainability into the building envelope; and it makes use of energy-efficient components and clean production concepts in its processes.

Chapter 3 : The green imperative (edition) | Open Library

But even if the chance of a Green winning is low, it is imperative that Greens turn out to vote for them. A small chance of saving our planet is infinitely better than a guarantee of unmitigated climate change.

Previous lecturing in philosophy and sociology has focused his research interests onto the intersection of design studies with social theory, particularly in terms of material culture, autonomy and everyday life. ISBN 0 6. Since the publication of *Design for the Real World* in , Victor Papanek has been justly regarded as a pioneering advocate of design for human need and as a thorn in the side of the cosy world of mainstream commercial design. It was vilified and ridiculed by many of those who aimed to protect design from ethical and political scrutiny. The book will certainly be devoured by students, writers and practitioners of design, who seek to further the cause of ecologically and ethically centred design. In this respect, *The Green Imperative* resonates with many contemporary themes of concern to designers. Apart from the explicitly ecological material, these include a renewed interest in vernacular architecture, in the concept of dwelling, in de-centralised production and in ethical consuming. Interestingly, such ideas also formed a part of the *Zeitgeist* at the end of the s when *Design for the Real World* appeared. The ecological content in *The Green Imperative* is wide-ranging and informative and, along with a focus on dwelling, forms one of the two main themes of the book. Papanek describes the damaging results of modern industrial practices on the ecosystem with passion. He includes some surprising details that add a human element to what could otherwise be regarded as dry statistics. For example, on average, three villages or towns have to be evacuated everyday somewhere in the world due to spillage of toxic chemicals and, there has been a major oil spillage into the oceans every second day for the last eighteen years p. After delineating such general ecological degradation, Papanek goes on to criticise the role that commercial design has played in this despoliation. He is particularly scathing about the complicity of designers in the production of unnecessary and wasteful consumer paraphernalia and their enslavement to the whims of the advertising and marketing professions. Papanek considers the environmental effects of various materials, techniques and processes in common use and goes on to suggest practical alternatives that designers may wish to consider. He is particularly critical of large-scale, highly centralised production, and argues for the expansion of a small-scale, de-centralised alternative. As usual, Papanek aims to lead from the front and he includes numerous examples taken from his own design work to illustrate his key points. In these respects, the book is both informative and useful. *The Green Imperative* also has important and timely things to say to the consumers, or end-users as Papanek prefers, of design. The book features a checklist of questions that should be asked before a decision is made to acquire any designed good or product. These questions aim to interrogate the claims made by the promotional industries concerning the assumed convenience of consumer goods. For example, end-users should question the assumptions that smaller, more powerful, more complex, supposedly improved and overly packaged products are essentially better than the ones they currently use. The questions are posed in order to reveal the balance of malevolent or benign ecological effects of new products and, also to assess whether their use results in people becoming more dependent on further wasteful consumption or more autonomous in relation to the products that the market provides. The ecological necessity of reducing our reliance on over-designed consumer goods, and especially their provision via the market ,underlies a further checklist of questions to be asked before buying products. Papanek urges us to firstly ask ourselves if we really need the item we are considering. If the answer is yes then a number of alternatives to buying should be considered. These include buying second-hand, borrowing, renting, leasing, sharing, co-ownership and buying in kit form. The book charts the recent expansion of such alternatives and particularly champions the sharing of infrequently used products. Sharing spreads cost and maintenance, whilst maximising use and encouraging co-operation and a sense of community. When a product reaches the end of its usefulness, Papanek encourages us to consider alternatives to disposal. These include recycling, repairing and reusing. He particularly endorses the benefits of in-built *Design for Disassembly*, a design principle that could enlarge the effect of these alternatives. Papanek argues that design should also be more ethical. He means this in two senses. Firstly, the design

professions themselves should construct codes of ethics that are genuinely regulative, protective, specific and transparent to outside inspection. Secondly, both designers and end-users should ask whether a design helps or further marginalises disenfranchised and poor sections of society, if it eases pain, whether it aids environmental sustainability, and so on. The hopeful end-result of considering the ethics and environmental impact of design is the development of a new design aesthetic which will imbue designed products with a set of ethical and ecological meanings. What form such an aesthetics will take cannot be delineated beforehand but, Papanek is adamant that this new aesthetic will be more meaningful and satisfying than that which characterises the bulk of commodities designed with the market and conspicuous consumption in mind. The second major theme of *The Green Imperative* is that of dwelling. Papanek investigates the notion of dwelling from several angles: He argues that we have gradually had our senses eroded in industrialised societies and that this has led to a loss of the experience of dwelling in favour of merely living in abodes that have little spirituality to their design. The modern house has become a functional receptacle for standardised consumer goods. Consequently, the design of houses has ignored the full importance of our senses. Little attention is paid to the ways in which subtle variations in lighting, sound, texture, smell and location affect our feelings, moods and experiences. Similarly, our modern houses pay scant attention to the relationship of the body to space. Our domestic space has had its symbolic aspects largely removed from it to be replaced by a strictly geometric and rationalised conception. Papanek contrasts this experience with other cultures, especially in Japan and Bali, where the sensory and spatial aspects of dwelling are of paramount significance. Modern architectural and urban practices have, according to Papanek, resulted in cities that are too big, too polluted, overly car-accommodating and alienating. The sense of location, the aesthetics of site and notions of human scale are all required to reinvigorate the richness that urban living can provide. Key to the rediscovery of a sense of dwelling and to the conviviality of urban life is vernacular architecture. These include the ideas that vernacular architecture is worthy simply because it is either historical, romantic, sacred or popular. He goes on to reject many common explanations of its development and evolves a complex explanatory web which mirrors his approach to explaining design in general. Vernacular architecture displays certain features that Papanek believes should inform architectural design in industrialised societies: Furthermore, vernacular structures are easy to understand, are made of local materials predominantly, are ecologically sensitive, are of human scale and are unselfconscious. In many respects it is the antithesis of modern architectural practice in industrialised societies. Just as an ethically and ecologically informed design produces a more fulfilling and meaningful aesthetic so, vernacular architecture implies a more meaningful and authentic sense of dwelling. The above summary of the main points of *The Green Imperative* should indicate the extent to which the book resonates with many contemporary themes of interest to designers. This makes its publication timely and a welcome addition to a growing resource of ideas that can inform ethically and ecologically committed design practice. However, this timeliness also explains why the book is unlikely to have the contentious and divisive effect that *Design for the Real World* provoked. It is unlikely to be as contentious because the last decade has seen a proliferation of texts that use similar material and reach similar conclusions to Papanek. Ironically, some of these books have contributed to something of a Papanek renaissance by introducing his ideas to a contemporary audience. The book is less likely to be divisive because these days the heads of most commercial design groups will at least pledge allegiance to ecological and ethical credentials even if they do not actually practice what they preach. In these respects, *The green imperative* is a timely and informative addition to a growing body of knowledge. However, the book is problematic in several ways. Firstly, the tone is often somewhat smug and preaching. One gains the impression that only Papanek, or those that have come into direct contact with him, has contributed towards ethical or ecologically sustainable design in industrialised societies. Papanek is certainly an important pioneer in these respects, but is not the lone hero these days that he sometimes presents himself to be. Secondly, many may object to the eclecticism that characterises *The Green Imperative*. Papanek is a formidable polymath but, at times, his attempts to justify his ideas results in a very strange brew of references. Nietzsche, Freud, and Jung nestle beside Mumford, Sotsass and Philip Johnson, in a rather uncritical appropriation of any idea that seem to support the case he is making. It is ironic that he berates post modernism for falling into extreme relativism. Similarly, his rejection of

nihilism sits uneasily beside his attempt to claim the nihilistic flimflam of Memphis design for the tradition of Dadaism and its radical re-appropriation of the commodity form p. This manifests itself in many forms but, I shall just mention just three of them. For example, his endorsement of de-centralised production is too vague to be of much use. Papanek does not elaborate which types of production can and cannot be de-centralised in an ecologically benign manner. The ecological consequences of local, neighbourhood production of tyres, plastics or chemicals, for example, would be disastrous. Centralised production of certain materials and products is necessary and justified in order to exercise some kind of meaningful control and co-ordination over the productive process. Just because centralised industrial production as it currently stands is not ecologically benign does mean that it cannot be made so or, that de-centralised production is somehow essentially more ecologically sustaining. It is also clear that, in the foreseeable future, recycling will have to rely on centralised processes in order to maintain its ecological advantages. One wonders where will the kits be manufactured, by whom and in what kinds of conditions? Papanek over-estimates the power of design in shaping the social relations of a society and provides little detail of how political power must be sought and incorporated into the societal changes he wishes to see. One gains the impression that by simply pointing out the ecological folly of the way we live, we will automatically reach a philanthropic consensus and so radically change the nature of our productive processes and consumption habits. For example, we may now in this country have reduced the damaging ecological consequences of coal mining but, this has been because we have chosen to import our coal from countries where it is mined by children in appalling conditions and with little environmental monitoring or intervention. Papanek speaks of the need to establish a link between design and social justice but, he provides little detail of how this may be realistically developed in a global economy with an ever-increasing geographical division of labour. To a large degree, the first two points made above are really manifestations of this more general weakness. It is not just Papanek who has failed to get to grips with political economy. It is an obvious and persistent lacuna in much green debate. One of its chief means of doing this in our time is through the production of more and more commodities that must be then consumed in order to realise profit. When the search for profit runs up against concern for the environment, it is usually the environment that is sacrificed to the expediencies of maximising profit. There are also many people, including designers, who regard the search for profit as being far from legitimate, and who would insist on emphasising the economic relationship between generating profit and the worsening of those social conditions, which Papanek claims can be alleviated by considering the ethical implications of choosing to buy a particular product p. He argues that end-users need to regain the joy of owning as few material possessions as possible. It is a laudable sentiment. However, consumers are linked to acquiring high levels of material possessions in ways that Papanek underestimates. He adopts a rather basic view that ideological manipulation by greedy advertisers is all that binds people to mass consumption. This fails to recognise the political economy of consumption. For example, one reason why many people have substituted commodity replacements for many activities that they previously carried out for themselves microwave ovens and pre-prepared food instead of cooking, televisions, home computers and videos instead of more autonomous or publicly-oriented creative pursuits is because they have increasingly less free time to maintain, protect and develop skills and autonomous capabilities for themselves. Papanek states at one point that people working on factory assembly lines are probably not going to be inclined to participate readily in many meaningful or autonomous activities at the end of a long day. His proposes that building products from kit form would be more creative and satisfying than just passively buying. I would agree with this but, it overlooks two points:

Chapter 4 : Victor Papanek The green imperative “ CITY STROLLS

Image from Elastic, Just Looking. There are few things more satisfying than starting the year off with a good book. My starter book this year was The Green Imperative by Victor Papanek, designer, eco-design pioneer and author of Design for the Real World.

Transparency and engagement are two attributes of this world leader in environmentally friendly facilities. Today there are 18 certified structures, and registered and working toward certification. LEED-Platinum certification no fewer than three times at its headquarters in San Jose and once in San Francisco, with further elite certifications being pursued for complexes in California, Massachusetts, China and India. They have held us up as a torch as to how companies can go green. Process equates to money. But that team seems to encompass everybody, setting the stage for serendipity, one project at a time. Both the eventual scope and savings from the virtualization project are difficult to estimate this early in the process. But with a rebate from the California Public Utilities Commission for each server changed out, plus the benefit of pure electricity conservation, Adobe may reap a result that, like many of its projects, outshines projections. Such stories are legion in the green annals of Adobe. Denise and Knox credit Fitzgerald for such measures as default double-sided printing on full-floor printers, which has reduced copy paper usage by 45 percent, and getting fax machines to talk directly to computers. The sense of engagement is deep and wide. But which jurisdictions attract the cream of the crop? Thirteen percent of those top-shelf projects are in California alone, which boasts 74 Gold projects and 21 Platinum projects, both category leaders as well. Other top cities such as Vancouver, B. Internationally, while other organizations promulgate their own rating systems, there is also enthusiasm for LEED. China is next with 14 projects. He says the team is analyzing another 25 projects today, including the server virtualization project, solar power and the possibility of a 2. Knox mentions the installation of real-time electrical meters. All the building systems were turning on at the same second every day. Knox points to parking garage fans at Adobe as the perfect example. The companies are jointly pursuing LEED certification for the exterior shell and interior. Adobe currently employs approximately people at a leased office in nearby Newton. Another 32 dropped out because they wanted to move faster, he says. Even leased properties are fair game for the green treatment. In Seattle, where it occupies an entire building, Adobe just signed a year lease. In San Jose, there were less than two-year paybacks. They almost go hand in hand at this point. We continue to look at things that do both. SiteNet data is from many sources and not warranted to be accurate or current.

Chapter 5 : The green imperative - The Statesman

The Green Imperative The keynote speaker at the recent Network World IT Roadmap conference in Dallas emphasized the importance of going green by highlighting this fact: IT accounted for 4% of.

Designed to limit the environmental impact of the international aviation industry, an agreement has been made to cap carbon emissions produced from international flights. A green imperative. Companies like Climate Change Capital are encouraging investment in green initiatives, and establishing schemes which could be vital to our future. Monday, November 30th, Companies like Climate Change Capital are encouraging investment in green initiatives, and establishing schemes which could be vital to our future. Throughout the world there are people and companies coming up with ideas that will help solve the problems associated with climate change. There is no shortage of entrepreneurs, engineers, scientists and designers with the flair, imagination and common sense to get the job done. There is, too, broad political agreement on the subject although the arguments will continue about which particular road to take and which countries should take the lead. And make no mistake; political will is vital in the battle against climate change because binding agreed reductions in CO2 emissions are at the heart of the strategy. In the end though, like many things in life, it all comes down to money. How do we pay and who pays and how do we value our efforts? First we must admit that we have failed properly to value many of the things that count most – a stable climate, thriving ecosystems, good soil quality and clean water, for example. The world is only just beginning to realise that a tree is worth more alive than dead and are working out the mechanism to make that a reality. And we continue to fine-tune the mechanism that will value carbon, or the lack of it, in such a way that it will encourage investment in the low-carbon economy. The realisation, ahead of time, that the transition to the low-carbon economy is an economic opportunity as well as an environmental imperative is what led to the setting up of Climate Change Capital. The areas on which the company concentrates, through its funds and teams, are carbon finance, private equity, property and energy infrastructure as well as advising other business. And far-sighted investors have realised the value to be gained from this investment in the future. After all, a pension fund has a duty to look ahead and the enlightened ones are realising that putting money into the equivalent of a gas guzzler is not the way forward. So how do you encourage those investors who have not yet recognised the value in going green to do so? That is to say we would build things to last. They would have the backing of government and the expected cash flows from the projects themselves. I sense that there is now a will for people to put their money to productive use. The property team are buying commercial property and then, with the cooperation of the tenants, retro-fitting the buildings to make them more energy-efficient which cuts emissions and costs to the benefit of all. Another team manages the Ventus Funds, specialist venture capital trust funds which target the UK renewable energy sector, including onshore wind-power, landfill gas, hydroelectric and biomass. And understanding how the low carbon economy works and how the myriad regulations are interpreted has helped Climate Change Capital and its clients. Vattenfall used the advisory team to help guide them through the purchase of three major windfarm deals in the UK. Since every decision taken by every company now has to have climate change at its core, it is quite clear that companies like Climate Change Capital are in the right place at the right time.

When designer Papanek lays down precepts for design in the 21st century or questions a professional code of ethics, he is clearly addressing other designers and architects.

But while data centre operations have been earmarked as chief suspect in the fight against inefficiency, there is widespread confusion about best strategies for reining in data centre energy consumption. That narrow-mindedness has to change, he says. Kumar argues that adopting environmentally friendly practices in the data centre will become a business-critical issue. Nevertheless, while some business leaders have been quick to jump on the bandwagon of corporate social responsibility CSR, many have failed to appreciate the stringent changes that such a policy will demand within the data centre, says Neil Rasmussen, chief technology officer of data centre equipment manufacturer APC. Best practice Vodafone is certainly one company that has made bold public commitments, acknowledging its environmental responsibilities. To become more efficient, Vodafone has embarked on a wide-ranging server and data centre consolidation programme, shifting operations from five UK sites to two smaller, state-of-the-art facilities. Much of the energy efficiency gains that can be made within the data centre are best realised when the systems are operating at close to peak capacity. Managed services provider Smartbunker has taken a different approach towards building an environmentally-friendly data centre. Furthermore, two-thirds had no policy for shutting down PCs overnight or at the weekend. A separate study conducted by 1E in conjunction with the National Energy Foundation, found that 1. This amounts to 1. Put in to context, carbon offsetting company Climate Care estimates that a return flight from London to New York only produces 1. With governments having made explicit commitments to cap carbon emissions, the reluctance of businesses to take a lead in introducing energy efficient practices bodes ill. Vendors can make it easier for buyers to identify energy-efficient equipment by agreeing common international standards, he adds. Without such agreement, the unsavoury prospect of government intervention looks more likely. Think tank, the Market Transformation Programme MTP, has been advising government on issues of sustainable energy use. It is currently engaged with the European Commission Joint Research Centre and several key industry groups, in developing a code of conduct for data centre operations. The aim is to produce a voluntary set of best practice guidelines, which would help minimise energy consumption in power-hungry data centres. So far, regulators have been willing to countenance voluntary schemes, recognising the benefits of a light regulatory touch, says Robin Murray from MTP. But make no mistake: Nevertheless carbon trading remains a divisive issue. While it has won favour among governments, critics argue that many schemes have been badly designed and poorly received. They point to the apparent indifference of many business leaders who could otherwise be expected to have profited from existing schemes. Whether energy efficiency within the data centre is achieved by persuasion or compulsion, business leaders can expect to rethink how they fuel these corporate engine rooms. One of the biggest challenges they face is how to achieve improvements:

Chapter 7 : A green imperative â€“ The New Economy

The green imperative Although Malthus' prediction that the growth in the world's population would have catastrophic consequences has not come to pass, concern exists that rapid population growth will have substantial negative environmental and social consequences (Malthus,).

It was clearly a group effort. The same, of course, can be said for green hospital design. Vittori served as chair of the U. Recently I talked to Vittori about the challenges and the imperative of green hospitals. Is the term still an oxymoron? It really does operate as a unique segment within the architecture and building world. Did the evidence-based design movement help spur green health care? It helped establish a relationship between buildings and outcomes. How do you move it in a green direction? Hospitals can take six, eight, ten years to design and complete. And right now while the industry is risk averse, it has patterns of operation that are troubling in terms of hospital-acquired infection and [medical air rates]. Still, there are a number of institutions that have exhibited a high level of environmental stewardship, but they also say: Is there an equivalent for green hospitals? Interestingly, there actually is a health-care system that has set a goal for being carbon-neutral by Gundersen Lutheran, in Wisconsin. What would you need to do to create a carbon-neutral hospital? It would be a combination of on-site generation. But that becomes meaningful when you right-size your energy loads. A combination of factors would support a carbon-neutral achievement. The National Health Service, in the U. That includes factors beyond energy use, such as their supply chain and transportation. Again, I would establish a correlation between the organizational mission and the related goals associated with the built environment. Once you put health as a central cog in this effort, a lot of stuff comes into focus really fast. Also related to that is understanding the many dimensions of the business case. Making the economic case for green building? Health care is dominated by owner-occupied facilities, and we must make that step from understanding first-cost implications with life-cycle cost implications. In the same issue, Suzanne LaBarre profiled Emilio Ambasz, the self-proclaimed father of sustainability, who recently completed a pair of medical facilities near Venice.

Chapter 8 : Books similar to The Green Imperative: Ecology and Ethics in Design and Architecture

This work asserts the belief that the power of design can influence a more responsible approach to our threatened environment. It shows how everyone, from those at the forefront of design to the consumers, can contribute to the well-being of the planet through an awareness of design and technology.

Chapter 9 : The Green Imperative: Ecology and Ethics in Design and Architecture by Victor Papanek

The keynote speaker at the recent Network World IT Roadmap conference in Dallas emphasized the importance of going green by highlighting this fact: IT accounted for 4% of electricity consumption.