INTRODUCTION

I will try to explain why I believe we are at the beginning of new design paradigm - an important new movement in urbanism and architecture whose visual aesthetic will be multifarious - yet derived from a creative synthesis of science, ecology and ethics. This opposes recent architectural 'isms', especially superficial and selfish architecture that gratifies itself on hyperbole to gain media self-aggrandisements.

Intelligent, social and selfless architectural expression capable of the most marvellous and spiritually uplifting engineered structures must challenge turn-of-the century stunt-making architectural gymnastics.

I will address five questions,

1. How does our intellectual heritage shape our actions?
2. What are we thinking about today?
3. How are we behaving as designers?
4. How should we design today?
5. How should we make things?

HOW DOES OUR INTELLECTUAL HERITAGE SHAPE OUR ACTIONS?

I want to step back 2,500 years to hint at the origins of our present discomfort of having to live with apparent contradictions, and in particular how homo sapiens sapiens has to face up to and find ways of taming a rampant homo faber and homo consumeris.

The Greeks sought to reconcile the idea of ‘perpetual change and eternal becoming’ put forward by Heraclitus with that of the ‘unchangeable being’ of Parmenides. The outcomes were to have a profound impact upon the development of our western society. The paradox was resolved when the Greeks thought of the atom as the inert fundamental unchangeable ‘being’, yet which, moved by undefined forces (spirits) could combine with other atoms to generate change. The wholeness of life had been split between spirit and matter, between body and soul; and investigations of the human soul and ethics, rather than materials, dominated western thinkers and society until the renaissance, when a renewed interest in matter and the natural world occurred. Descartes focused this division giving a subtle new dimension to it: the idea
of mind and matter. He “separated” man from nature, the subject from the object. Rather than finding ourselves at one with nature, Descartes, inadvertently, took us on a path separating us further from nature, towards a world where man thought himself more important than nature.

In the late 1920s, Heisenberg put forward his uncertainty principle, and later with Bohr, the Copenhagen Interpretation of quantum mechanics, and the results of their understanding suggested the fact that when a human being observed some event it changed the reality of that event; in a manner of speaking, bringing man and nature back to interdependence.

Meanwhile, in other regions of the world there was no such apparent split. Ways of living, beliefs not religions, such as Buddhism and Taoism in the East bear witness to this and describe, much as Heraclitus did, the cyclical nature of change.

In the last few hundred years our western ways have impacted upon the traditions of other cultures and upon the nature of the planet we share.

Civilisation, according to the late American social anthropologist, Stanley Diamond, may be regarded as a system in internal disequilibrium; technology or ideology or social organisation are always out of joint with each other - that is what propels the system along a given track. Our sense of movement, of incompleteness, contributes to the idea of progress. To put it another way, when we are able to appreciate the way the world is really working, it is never quite the way we would like it to be working and this is why making a better future is so challenging.

I think it is clear that the paradigm I am referring to is far more than some architectural style. I hope to show that it has to be more than a conventional notion of sustainable architecture or development. It has to recognise a world that has already urbanised and is globalising with little evident shared humanity. For those of us living in economically powerful post-industrial societies it is about a fundamental change in the way we think, behave towards each other, design and make things.

WHAT ARE WE THINKING ABOUT TODAY?

Recalling Descartes again, “I think therefore I exist (am).”

homo faber, “I think therefore I make.”

homo consumeris, “I buy therefore I am”

homo sapiens sapiens, “I exist therefore I care”.

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Our individual and collective thinking is sandwiched between a moral environment full of bureaucratic rules and regulations telling us how to behave and to design and a moral vacuum where international agencies, acting on behalf of our conscience, cost us the occasional coin dropped into an Amnesty or Greenpeace collection box or envelope which we then ‘consume’ through the reports in the media of their moral actions in much the same way that we consume the products of our technology.
We are becoming less responsible for our lives, not more so. In the West we have become the product of our own economic thinking to the point where financial reward can be obtained from being irresponsible, from not caring for others or our environment. The decline in the only lifelong relationship we have - the family - is paralleled in the rise of an increasingly contractual and litigious social world.

The quality of life is strained, and most people cannot choose or control it. This leads to a feeling of alienation, of loneliness, in the sense of seeing ourselves as vessels containing a spirit of life that may suggest to us an idea of the point of life, a point or moment when life gives us a sense of its richness, of meaning or value. Surviving what life's chance puts in front of us is most people's reality, and finding time to make sense of its complexities is compounded in a process of urbanisation whose in-migration destabilises both city and countryside.

Martin Jacques wrote recently of the family as the central site of intimacy as expressed between family members. “Intimacy is a function of time and permanence, and rests on mutuality and unconditionality and is rooted in trust. As such it is the antithesis of the values engendered by the market.” Intimacy belongs, as does love, in the realm of the spirit, not of the body or matter - and it is becoming more elusive. Let’s not delude ourselves. We live in an age of quantity not quality, of individualism not community. We live to produce, to consume and to waste. The shift from settled to dynamic communities where the void of community life is filled with the artifice of the media or products is slowly reducing our sensitivities towards each other.

It only takes one generation to really care and we have a real chance for positive change. Similarly it takes only one alienated generation satiated on technological media-game-playing and voyeuristic gratification growing up with a decreasing experience of stable human relationships within which a sense of security, love, care and sharing are nurtured for our hopes of seeing a better world all but vanish. Most of
my generation has lived as if there was no tomorrow, nevertheless many have sensed its loss of soul, questioned the meaning of progress, and wanted to do something about the loss of values.

Our mental structures were honed over millions of years of living in small tribal groups, and we bring the same structures to bear on an existence that has changed materially, however we measure it, by several orders of magnitude. The rate of technological development towards the (apparent) mastery of nature bears no relation to the rate at which human social evolution can keep pace with the consequences.

Our western capitalist culture continues to deny the natural environment by exploiting it, and to measure growth (progress and success) by GDP is still totally embedded in our society’s idea of civilisation, despite our laments about the state of our biosphere. Our culture is dominated by economics and by economists who are not sufficiently engaged with creating methodologies or measurements that embrace the needs of the wider natural environment, or of the poor. Any architecture we create in the west, no matter what its visual reference or theoretical underpinning maintains to a greater or lesser extent this status quo.

Forty years ago Robert Kennedy wrote in a text entitled “The American Environment”:
“And let us be clear at the outset that we will find neither national purpose nor personal satisfaction in a mere continuation of technical progress, in an endless amassing of worldly goods. We cannot measure national spirit by the Dow-Jones average or national achievement by the gross national product.”

Our culture is driven by competition not altruism, which in turn produces an aggressive, tough and fast world in which matter matters, and fewer and fewer seem to benefit.
We seldom achieve progress in a universally agreed sense - the term is too loaded politically, since many of our notions of progress are achieved at the expense of the quality of life of others elsewhere in the world. Progress is fundamentally a journey of the individual, and all will measure it differently. Progress is inconsistent with a defined end. It is, therefore, difficult to find a consensual definition in a global society. So the goal of progress has constantly to be redefined, and this process is part of a critical review of our advances since we last defined the goal.
The idea of progress may be bound up with the polarization between optimist and pessimist - those who can embrace the future and deal with uncertainty, as opposed to those whose insecurity drives them to cling to what they think they know. Architectural Modernism grew out of an idea of certainty and commitment underpinned by a desire to share with as many people as possible the fruits of progress through new housing, educational and welfare facilities. This was the last real architectural movement that was founded on an idea more fundamental than finding a new superficial or spatial aesthetic. Only recently has there been significant doubt as to the goodness of the direction in which the developed world has been "progressing".

The new paradigm is also predicated on the notion of sharing - I am sharing this planet with others and with all life, and that every one of my thoughts and actions will affect my environment.

HOW ARE WE BEHAVING AS DESIGNERS?

My conceptual thinking has always attempted to synthesise art, science, technique, landscape and economy within a moral context.

Sustainability is so general a term, interpreted and appropriated by all types of governments, companies, institutions and agencies, as to render it almost meaningless. Perhaps survival would be a better word. Architects are often principal actors in presenting environmentally-coated images of sustainable architecture - as such an appearance can be a useful caché today to help secure a commission, or for them to preen a little in front of their peers. Few understand the real impact or value that these ‘green’ additions have. They rely on engineers and researchers to give them the facts, which in turn are often without sufficient truth.

I think that most designers believe that they are essentially doing good. Nowadays, when we attempt to solve a problem or derive a design solution we try to expand our analyses to include a more complex global vision of interdependence. But in simple terms, most of us believe that a sustainable approach is one which gets more value out of less material, pollutes less, wastes less and recycles more and does not reduce the next generation’s choices. This is honourable, but relatively naïve, and in the absence of a more profound and holistic approach we struggle along. At the moment, the contradictions are inescapable between helping to create a more
intelligent world in which moral and social justice rather than economic justice prevails and producing architecture within the present economic model. This is the principal conundrum that has concerned me since I began my own practice in 1976.

I am aware that one can try to make the built environment more visually and spatially attractive; and that one can sensually express a need to de-process and de-contaminate the manufacture, the distribution and the consumption of building materials and energy in the interest of conserving natural resources and reducing toxin emissions. I refer to this way of thinking and designing and its visual expression as “metaphorical intelligence”.

I consider that the need for “evident intelligence and humanity” in what we are doing is indisputable, and a beautiful idea.

There is no doubt that, as the world feels smaller, there is not only a mutual assimilation of cultural activity - banal as much of it appears to be - but also a subversion of differences through the products we design - whether they be international architectures that have no contextual or aesthetic frontiers, or mobile visi-phones. One might even suggest that there has been a blurring of eastern and western aesthetics.

Western capitalism has been absorbed into Far East economic culture and has now entered China’s commercial communist culture. For the people of these countries and their cultures, the invasive power of recent western economic thinking has also had a destabilising effect on their design culture.

In architecture, the spread of modernism, brutalism and hi-tech aesthetics reflected the globalisation of architectural style that occurred during the 20th century. And similarly, finding differences in personal products - the car, bicycle, DVD player, and clothing is more difficult.

The cultural difference is becoming invisible to the eye, but perhaps not in the mind. It is here that the soul or spirit of place and object resides.

With this globalisation, which we find at its most banal in fast food, fast movies and fast games, is there about to be a backlash from designers? Can we see the signs that suggest a new tendency from cultural differences that will produce new aesthetic
diversity and express a revitalised sense of being and meaning? Can architects and engineers help to produce this?

Or, is our work, like that of product designers, in the end simply to be consumed because our designs are more attractive to the client, who is after all the first consumer of our architecture?

Image: WHAT IS THE COLOUR OF THE WIND?

The tragedy is that design in our present society remains judged, both qualitatively and quantitatively by the question - does it attract the consumer?

Designers may think they have more noble standards - of providing functional artefacts that are environmentally and culturally sensitive - but are we deluding ourselves?

Do we actually need most of the things we design?
Do they simply serve to perpetuate the status quo which we view as unsustainable?

Humanity and intelligence have as much to do with the process of decision-making and progress as the tangible artefacts that result from our application of science, technology and economics to matter.

HOW SHOULD WE DESIGN TODAY?

This question is based upon the assumption that our ecological and socio-economic irresponsibility cannot continue. There are two reasons - the consequences of increasing urbanisation and planetary wide pollution.

Cities are growing everywhere. They are part of the global ecosystem and reflect the values of those who have contributed to their development and evolution. We (in our minds at least) may be moving from an Industrial Age through an Information Age into an Ecological Age, yet we live in cities which seem stuck in an industrialised format. Apparently more humans now live in cities than the countryside for the very first time. So the city is the predominant human nest. We have to seriously reconsider the nature of these nests since not only their immediate qualities affect us, but cities are central to global ecology and thus central to the solution.

Can cities evolve to become better balanced with nature to give us cities with a healthier culture? A western city is not an African or Indian city, and it discredits us to
think that our urban strategies and planning are transferable to these cultures. They have a need to consider their own city philosophies, and to develop strategies and infrastructures appropriate to their particular cultures and organizations. Perhaps we should reconsider the city as an organism - an eco-polis embodying ethics, concepts and programs for eco-logical restoration - a place which we heal and which heals in return, where a healthy biosphere is the end game.

We have to ask ourselves whether we can influence the evolution of design in general, and if so, how to go about it. For example what is the relationship between architectural design and industrial innovation?

Understanding the context is the first investigation of architecture. The context is physical, intellectual and sensual. Architecture has a haptic and physical quality. It is fundamentally a material construct. The architectural process and architecture itself is synthesis, not separation - the synthesis of ideas, of people, of materials and ultimately a sense of man’s union with nature. Creativity and innovation in architecture work through the investigation of memory, context, the nature of the materials from which we build and the way buildings are constructed. These investigations take place with both a sense of freedom and discipline. Despite pretensions to our importance, and certainly the media plays its part in this myth making, architects rarely initiate new directions - our power is essentially formal because that is where architects skills are applied most significantly until now. Engineers are generally better positioned to imagine and help develop new technical products. Architects are rarely in the front line to prescribe or determine in any consequential sense the context, use, production, cost-relationship, profitability, marketing, durability, ecology, etc. of the materials from which we make architecture, and thus the possible architectures that could exist. Some of us try, and just occasionally we are successful in influencing industry, and thus architecture.

I believe the key ingredients of an innovation culture include confidence, skill, judgement, understanding, and notably foresight - a sort of early warning system for the next 10 to 20 years. Any organisation that incorporates foresight thinking as an integral and shared part of its operations builds in the recognition and potential to innovate, and thus survive. Improvements in materials and construction have been largely based upon one single
objective - to be able to better predict their performance, thereby improving performance and reducing costs. This is no longer sufficient to meet the demands of the new paradigm. In other design fields such as electro-neuro-bio-medical engineering, people are developing solutions to enable the blind to see and Alzheimer sufferers to recall. These developments result from the new synthetic disciplines - not the old classes of engineering.

New materials capable of endless recycling, and low energy production methods are necessary.

A basic “re-design” of products in conjunction with new standards for recycling, toxic elimination, energy and resource efficiency, de-materialisation etc. is complex. And as we begin to analyse the eventual transformations in product life-cycles and industrially produced material with the potential for endless utility and human health and safety, it is evident that the criteria for analysing impact, the capacity to construct a general picture, the language employed in their definition and communication, the methodologies by which to apply conclusions to new design problems are at present far too limited in scope to cope with the problem of global impact and its effect on the quality of life. It is evident that new intellectual and creative alliances are needed in our industry.

Thinking differently, we will be able to make our designs not only an asset for investors, but also one for the environment and our collective humanity as well.

A definition of environmentally positive design might be:

“Where any manufactured by-product of the design solution has a net contributing value when analysed in terms of environmental and social impact.”

Having thought through the issues, one of the fundamental challenges is how to pull together and evaluate all of the data, if it is indeed available?

Initial reflections on “sustainability and design” in the late nineteen seventies as a pragmatic search for a “clean eco-design” methodology have since become, for some of us, a more fundamental inquiry into the problem of “design” in general and of its re-evaluation in terms of an impending evolution in world views from an industrial reductionist culture to that of a post-industrial holistic one - an ecological or biospheric one. The opening up of our investigation to include a more social, political and philosophical criticism of design is complex but indispensable if we are to take the “re-design of design” seriously. Our present goal can go only so far as to open up a
critical discussion on the role of design in modern society in view of a re-evaluation of our ethical responsibility as designers.

An object or structure has intrinsic characteristics that we can recognise and which are independent of their surroundings. This sounds like Descartes at his best. It assumes that an object separated from the mode of thought of its designer and its mode of production, presents to us, a subjective viewer, identifiable (although not necessarily universal) qualities - such as beauty, harmony, truth, etc. Yet we know that in western philosophy, absolute and fundamental criteria have shifted with historical paradigms.

Western philosophy in its rationalization of each historical paradigm, has upheld a certain collection of criteria as being "absolute" or "fundamental". It has maintained that an object has intrinsic characteristics which are independent of its surroundings or of its viewer. The succession of paradigms has produced a long history of different and often contradictory results each entirely dependent on the specificity of a particular time/culture/space of its inventor.

The history of philosophy is characterized by, and at the same time oblivious to, this paradox.
As if the form and content of the criteria for judging quality, such as truth, goodness, beauty, progress, diversity, etc., could be a common denominator or residue of a perfect filtering system.

This problem extends to our perception of reality as well as the way in which we act upon that reality - as in construct, design, destroy etc. If we are to determine and employ any criteria by which to judge impact, and thus quality, we must take into account and in some way resolve these paradoxes.

Consider our present society where truth in design is considered, if at all, a secondary quality. We have become inured to the “image” that accompanies a consumer product which is a representation systematically constructed as a separate entity to conform to the prefabricated “desire” of the consumer market. This representation takes on a primary role as a substitute for the profound meaning of the object itself. This distinction between “image” and “meaning” contributes to obscuring from our eyes the nature and importance of an object’s indirect impact.
For an object to have meaning it must be perceived and experienced.

The question today is whether we have reached a point of time/culture/space where we must place our collective environmental wellbeing more in harmony with nature or allow our present actions to continue.

HOW SHOULD WE MAKE THINGS & WHAT ROLE AESTHETICS?

Architecture is culture. Vilém Flusser, the Czech-born philosopher, made a convincing argument in his short essay The Factory², that it is through ‘the factory’, i.e. the place of manufacture, that we can understand the science, politics, art and religion of a society, and identify the human being in that society. His sense of humour suggested that *homo faber* (maker) was perhaps a better description of the common characteristic of human beings rather than *homo sapiens sapiens*.

The materials and physical spaces that our architectural thinking ultimately has to engage with is a powerful witness to *homo faber*, but today, we have to ask deeper and more difficult questions if we are to find solutions that respond to the idea of *homo sapiens sapiens*.

The architecture we produce, and how we make our buildings reflect our worldview. At the moment nearly all architecture that we create in the West, no matter what its visual reference or theoretical underpinning, is maintaining to a greater or lesser extent the consumer status quo. Although there needs to be a revolution, realistically there can be no revolution in the industrialised regions of the world with regard to the way we extract, process, manufacture, distribute, design and consume materials - only a long campaign or catastrophe it seems will eventually change our habits. It is still difficult to access and realistically compare hard facts on energy, labour, environmental and social impact, and the effectiveness of recycling materials used in construction.

The impact of legislation and technological change on energy consumption still remain slight. The ways in which we use - or waste - energy seem part of a world power game that is now played out not only in the political arena, but in the carbon trading financial markets, while little or no value is placed upon key global ecosystems. The ethos of the so-called "right" of the individual to enjoy freedom - of private transport, the products of energy-intensive industry, and an inefficient but comfortable home
and work environment - demands a high price.

The short term view of material gain and the difficulty we have in altering these values could change when legislation (rather than hope for universal enlightenment) brings about a different set of criteria and performance. If we believe more in the power of collaboration, cooperation, and the fundamental altruism of humans as part of our instinct for survival then this paradigm shift will become more evident. We do not need to undermine but to redefine the principle of an economic structure in the world with ethical values, for we have the ability to create competitive new industries and products that pose no health risk, that positively serve us and our entire biosphere. The economy should serve people not only in a material sense but, by placing it in a wider, more holistic context, value non-material issues as importantly as material ones. I can imagine a post-fossil age where companies still compete, but they compete to sustain ecosystems and to make environmentally sensitive products that do no damage at all because that is what people want, society has fully legislated for, and because their materials have been designed and assembled in ways that ensure they are reusable over and over again in different products.

THE ROLE OF AESTHETICS IN HOW WE ‘MAKE’ THINGS.

There is in every era a prevailing visual aesthetic. In architecture, we have seen that the last has been commonly referred to as high-tech - an extension of modernism. Its aesthetic values have been associated with the beauty inherent in machine made elements and the importance of the connection, or joint, between the various parts - a desire to read the whole from the smallest assembly. There has been little social motive behind it.

Designers often have a desire to represent the zeitgeist in their work. While the balance of nature with man is part of our recent zeitgeist, there has been a significant shift towards a landscape aesthetic, which has quickly evolved to an ecological one which engages a moral and not just a visual aesthetic. Lying within this new aesthetic is the notion of sustainability, and realising it demands a more profound scientific and engineering understanding of natural systems.

My architecture starts in the spaces I create in my mind. To be able to read our reality
requires a reference - our dreams and imaginings - and some will question reality’s reality. It is vital that I am able to explore the moral and spatial landscapes of a potential project within my mind and then connect them to the physical landscape.

While watching a log burn we can see how change reveals the beauty of the flame and the log as it slowly transforms into ash; the water that forms a wave, breaks, foams and reforms as a retreating surface, always comes back, in part, as a new wave. These wonderful phenomena are examples of the non-linear world that nature presents to us. I am convinced that beauty is in large measure non-linear. Creating architectural beauty may come from allowing the play of nature’s non-linearity, and its entropic qualities.

The time frame of architecture is longer than the phenomena I’ve mentioned, but one needs to feel a sense of change occurring in response to the environment. This is to imagine architecture that has depth, endurance and beauty derived from nature.

We have seen proposals - surface, elemental and spatial representations - of certain states and interpretations of non-linearity (chaos, fractals). They are easily read as images to be consumed rather than profound investigations into capturing some elusive and wonderful phenomena that surround us. To capture the beauty of non-linearity requires a view of architecture and architectural space that is intrinsically dynamic. There has to be a contribution from the surface which is beyond reflection and beyond itself as a skin. It has to reveal transformational qualities, sensitivity to light and shadow, to burning sun or pouring rain, to change albeit slowly - not to stay the same forever.

Aesthetic intent is use-less (unquantifiable) work but has as much, if not more, impact upon how we feel as economy or efficiency. In any project, the latter [efficiency and economy] are rightly expected by most clients, and represent those two most tangible aspects of time and money, and combined with spatial organisation and appropriate materials should provide fitness for purpose. Aesthetics involves the designer in investigation, research and rejection of ideas of space, feeling and appearance. These take time, and do not appear directly to profit the client, and often the client sees no real point in paying for them. However, designers must invest in it. If this intangible issue, for that is what it is until the work is realised, is driven by the moral dimension of aesthetics that embrace the idea that we design not just to satisfy the immediate needs of our client, but for future generations, then the aesthetic issue become far
The power of aesthetics is measured in the mind, sometimes the heart, but not in the bank balance or electricity meter. The lack of it is like drip-water torture; it numbs the mind. It is the lack of this aesthetic dimension which renders the cumulative effect of many parts of built environment, from motorway barriers to ventilation grills, from advertising hoardings to buildings so demoralising. The result of giving value to the moral aesthetic as well as the appearance of the work is that it will indicate how responsibly we have acted with regard to future generations. It is a key part of the \textit{homo faber} or \textit{homo sapiens’} heritance that we pass on.

We talk of more and more city dwellers, and of increasing the density of our cities as a sustainable model for the future. But what a terrible future for the next generations if the environment we create depresses us. The rapid post-war build of housing estates is a perfect illustration. Perhaps the current rush to build 3,000 schools through PFI and 3 million houses carries enormous aesthetic, as well as other risks. As designers we know that we have a moral obligation to far more people than simply our paymaster.

However, the aesthetic dimension must include all our senses. Consider the acoustic world we create. Designers can respond efficiently to current recommended World Health Organisation standards on noise levels upon occupants within the buildings we design, but do we regularly consider first and second sound reflections; or the impact of fire alarm testing and security announcements; the location of air handling plants, air exhausts and standby generators. Understanding and taking account of the indirect and hidden dimensions, as well as the obvious, will become an increasing responsibility of the designer as we densify our cities.

Yet it is these hidden dimensions as much as those that we see, that determine the quality of life. If we do not get our cities right at the micro-level we could well end up with a cumulative effect upon our society far worse than any environmental disaster caused by super-bugs, toxins or terrorists.

In a world becoming more and more litigious, designers are being obliged to focus upon health and safety. Yet how many of us regularly consider the impact of what we design upon the health of the mind? We know that we design the physical world around us, the machines and the built environment. This physicality enables us to live, but today...
almost nothing is allowed to be designed by guesswork. Intuitive design must be measurable. Traditionally, we have had to justify our design decisions to our clients through measurable things - economy and efficiency. I have discussed aesthetics in a broad sense, but how do we measure the effect of our designs upon the mind of the viewer or user? We do not really know. Vitruvius gave us firmness (buildability), commodity (usefulness) and delight. We have learnt to measure the elements of the first two, and we design to rules and predictable outcomes.

Now we are trying to measure ‘delight’. So we have begun to look at the effect of design upon our senses more seriously. The easiest to understand are measurable - light and sound, but the others we have hardly begun to appreciate. We need to understand better how our designs affect all of our senses, and thus our minds.

Manufacturing processes can give us soft and less controlled surfaces. And choosing materials that allow the environment to change the surface is an aesthetic design decision which embraces not only the appearance, but becomes a metaphor for designing with rather than against nature, of beginning to unwind the long recent past where everything we have created becomes everything to be maintained. Since the industrial revolution, the level of the maintenance has dictated the quality of our environment.

The de-processing of materials, and thus of architecture itself, appeals to me. Directly associated with this is the discovery of beauty in the essence of material. I seek more and more to find, understand and capture this in my work.

CONCLUSION

This essay expresses some of my thoughts about a new design paradigm concerning:
- environmental impact in a more complete sense;
- quality in its most profound sense and,
- cultural identity in its most politically controversial sense.

As designers and engineers, we have to consider the value of meaning and take far more account of:
all of the senses within design - otherwise we may as well build for robots or part-humans.
- how we extract and source materials and what we manufacture for buildings.
- the need for a socially responsible dimension and humanitarian values in what we design.

I believe that we have to re-define and expand the criteria for determining whether or not design solutions are functional and meaningful. Functionality is ultimately “impact” in a world where our goal is the quality of life. Meaning reveals values within the ultimate art of all - the art of living together, in our homes, our community and our planet.

I am not suggesting any sentimentality of attachment to the past that nearly always encourages a misplaced desire to imitate it. That motive is usually delusional and symptomatic of a loss of faith in the present, and a fear of the future. It produces an inappropriate visual nostalgia that is very different from my concern about social decay and the loss of humanitarian values expressed through architecture and which harbour my own sense of continuity with history. These losses are real, and are associated with the ever-increasing materialism and division of society, as material goals eclipse other aspirations. It is as if grasping the image will bring us closer to an imagined set of spiritual values. Are we content in an age of such thinness, where we allow the image to determine so much?

All design work should be aimed at producing a world that is a better place to live in for all, where people are able to understand more, where people are less oppressed and people live less dreary lives, and feel proud to work together. Design should be helping to bring us together.

My proposition has been to identify that design should embrace not only *homo faber*, but *homo sapiens*. Maybe then we would be able to dispense with a predilection for creating empty fashions to feed an avaricious consumer society, and allow a better understanding of the social, physical, economic and philosophical aspects to inform and inspire design.

Surely this will help us shape a better future and give progress a new meaning.

If we reflect upon the way the world is, and if we have an idea of what future is worth
living in, and if we want to achieve it, then we have to direct our thinking and our development so that we get there.

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