SUSTAINABILE DEVELOPMENT IN THE BUILT ENVIRONMENT

Guest Essay by Etienne Bruwer – Greenhaus Architects

A new ethos of people making the manmade world

In talking about southern African literature, esteemed professor Eskia Mphahlele once observed that we live in a culture obsessed with place. Our indigenous literature reveals a yearning for 'place of being', the rare ingredient of 'at-homeness' in our experience. With an obsession, we hang on to 'there whence we came', our mythical places of wholeness and belonging, places that remember us, and honour our humanity in its fullness. In our stories, we 'read' one another by association with these remembered places of origin, allocations of place serve as metaphors of identity. Prerequisite to 'at-homeness' is a combination of life-enhancing social, economic and environmental factors that we have come to call 'sustainability'.

Over the last seventy years – the period commonly known as the Modernist era – much of architecture has become 'containers-for-profit-behind-billboards' – anonymous and bland, 'buildings' that are computer-generated and ex-catalog, cloned and repeated ad infinitum. So too, much of that which previously became the public realm has either been privatized/annexed for profit or otherwise disowned, becoming 'non-places', characterised by environmental apathy, social estrangement and extreme economic disparity. Areas zoned for profit exclude participation by most, and the leftovers – the no-man's lands twixt counting house and securi-zoned consumer-compound, contain little or nothing of us except our taxes in tar. As urbanity gives way to mall-and-motorway 'culture', memory of the liveable city has faded; so too has the practice of civility that our cities once afforded us. Add to that the combined effects of virtual reality (the placelessness of the p c) and loss of propinquity (place-boundness), and the odds stacked against civic life and environment alike become evident. Our obsessional longing for 'at-homeness', for a homecoming and healing of our godforsaken state, is a direct consequence of our attitude to shaping the environment.

We participate in the manmade environment in two ways; we engage with it through our experience of built architecture, and more profoundly, we 'own' it by participating in its making and transformation. Both are prerequisite to achieving sustainability. We 'belong' by finding something of ourselves in the world and by 'making our mark', by transforming environment. More plainly put, we tend to maintain and add value to environments that we find worthy reflection of our humanity, and we tend to disown, neglect and vandalise that which we cannot recognise, respect or 'own'. At best, we delight and relate to the qualities of human scale, proportion, texture, etc. as found in the organic morphology (correct membering of parts to whole) of living, life-giving architecture. At worst, when the fundamental human need to relate and participate in the making and transformation of the manmade environment is no longer perceived (and hence neither educated for nor invested in) we will have arrived in the industrial wilderness. On our current trajectory, we are literally, 'running out of space'.

Although environmental aspects (correct physical processes/sources/materials, etc.) and economic aspects (embodied/used energy, life cycle planning, demonetarised energy exchange systems, voluntary simplicity, etc.) of sustainability in the built environment are more or less known, the social aspects are not. In the first decade of transformation in South Africa, even as the world computerised and globalised, the right relationship between people, work and the making of the built environment was sought for by many agencies, but largely still awaits discovery. We see this problem across the board – from managing nature reserves, to building inner cities, to achieving equitable land reform, but most acutely in the procurement of housing, where perhaps apartheid housing was only different from post-apartheid housing in perhaps having delivered more durable buildings.

We are still 'counting the units' rather than chalking up sustainable nodes, clusters and neighbourhoods. Given our history and the absolute primacy of social development and creating job opportunities on our current agenda, this is a huge missed opportunity. Half the world's energy is used by the building industry, yet this sector has remained remote from people, and as such has not utilized its potential and capacity as a social transformation tool, a mass employment source and broad wealth creator. The building industry is still perceived as 'industrial' and hence remains a de-humanised business, in which 'environment-making' is measured as 'labour cost'.

It would seem that we have yet to come to the fundamental realisation that development comes 'from within', that human dignity is 'self-made' and can only develop through participation and co-ownership of the process of making environment.

Given the state of the environment (the globe), the contraction of wealth and economic disparity (between the hemispheres) the social polarities and divides (at a local/regional level) achieving sustainability is the most important challenge of this new century. People are also now realizing that in order to achieve sustainability, in addition to institutional change, action at an individual level will be required – the kind that in turn will require personal change (mainly, re-directing material aspirations – such as altering lifestyle and relinquishing conformism). With so little tangible evidence of success and reward, the paradigm shift to sustainability will be neither easy nor comfortable. It also cannot be bought for all the money in the world, as the neo-liberalists would have us believe.

We call the connective tissue between identifiable/isolatable processes, which are working in series and sequence 'SUSTAINABILITY'.

Consisting as it does in the quality of the links between the parts of wholes, defining the sustainability of 'things' in a process as complex and open-ended as the built environment is not really appropriate or useful. At best, one could list key indicators of a sustainable process:

1. Sustainable processes always have an aesthetic dimension; along with Commodity and Firmity, the presence of Beauty and Variety is always essential. This is prerequisite to communication across our many divides, because words tend to divide, whereas shared cultural goods unite.
2. Proportional to sustainability will be the extent of human involvement. Human presence is maintained throughout planning, designing, negotiating, building, finishing, fitting, and maintaining sustainable built environments. We have been de-humanising the manmade world since the advent of the industrial revolution, developing machine-made 'products', which in turn have produced ever more costly, unhealthy and soulless environments void of life. Designed in the image of the machine as they are, industrial-aesthetic spaces cannot achieve sustainability, because the energy embodied in these intentionally limit human involvement in favour of factory-made goods.
3. Integrated process is characteristic of sustainable practice. All parts belong, forming part of a greater whole. The goodness and the number of the links between the parts determine stability. Recursive and integrative practices broaden interdependency, spread risk, multiply fall-back positions, use energy better, lessen dependency on money. It is good for business but also not bad for anything else.
4. Within a sustainable manmade environment, nothing is designed or built that could harm the environment or that uses energy squanderously. Nothing is made harder than needed for its purpose. Sustainability in the making of the manmade environment must incorporate values for: Social Capital (by rating levels of participation); Economic Capital (by rating the amounts of embodied energy); and for Environmental Capital (by chalking up the scope of the life-enhancing practices and elements used such as renewable resources, toxicity, recycling, source purity, remanufacture, transport economy, etc.)
5. Adopting a "source economy" (using what you have to hand) is prerequisite to sustainability. In nature, sources are abundant, in the city, the waste stream and alien vegetation are endless. The closer the proximity of sources to 'products', the greater the economy and most probably the purer the source. In the Cape region for example, abundant clay and sand underfoot and 'free' alien vegetation cannot be beaten as 'triple bottom line' sources – in terms of transport, embodied energy, and positive environmental impacts (alien clearing, water consumption, etc.). Also, when buying, sustainability dictates that the sources themselves must be sustainable.

To conclude, a few examples of influential initiatives in the sphere of sustainability. In the United States, land of plenty, (also junk and debt) the re-manufacture of building materials and establishment of stockyards for distributing re-useable building materials is a growth industry. Cradle-to-cradle planning, in which building components are made and fitted to facilitate easy alteration and re-use at the inception/design stage (Prof Charles Kibert, University of Florida). Buildings 'begin' before they get built and 'go on' long after they are decommissioned.

Often working in concert, the global Permaculture movement (Bill Mollison et al), the Urban greening and food producing movement (Abalimi Bezekhaya, Trees for Africa , Soil for Life, etc.), the Ecovillage and New settlement movement (Kuthumba/Plettenberg Bay, Crystal Waters/Australia, the Camphill Movement, Bethel/Lesotho, Hotshoj/Aarhus, Denmark, etc), the inner city "green housing cooperative movement" (Flintenbreite/Hamburg, etc.), the new energy development and awareness centres (Greenhouse People's Project in Joubert Park, Gauteng, Agama-EDG green office centre in Westlake, CapeTown); green building materials (Real Goods Centre, Ukiah, California) are the thinktanks and laboratories providing showcases for visionary ideas and better practices in re-creating our manmade environment.

The remarkable work of Christopher Alexander in Central and South America (Favela/Bairro Housing Movement) and Hassan Fathy in Egypt (natural building), and Victor Lerner (mayor of Curitiba/Brazil – integrative processes) form part of the spectrum of a global 'organic' architecture and civic processes with community as its core. Younger talented 'junk architects' like Jan Korbes in Den Haag (works with Romany Communities in Rome) are emerging and being recognised as highly creative waste-stream/remanufacturing experts.

Global networks, conferences and exhibitions such as the World Organic Architecture Exhibition (Berlage Bourse, Amsterdam, 2003) and South Africa's own bi-annual Strategies for Sustainability in the Built Environment Conference Series jointly convened by leading local institutions and professionals (UCT Engeo, CSIR Boutek, etc.) are the prime venues for exchange.

Organisations like Craterre in Grenoble and the van Leer Foundation working out of Holland are making a measurable difference. Their work evidences understanding of the links between unemployment, social unrest and housing and the many difficulties of foreign interests and aid and governments operating in a global blue-suit economy.

Active involvement of communities in managing their environment must be the order of the day. Equality, access, accountability, transparency and sustainable living must be our watchwords.

~ Nelson Mandela

