

Eco**EDGE** 2

Conference:
Federation Square
Melbourne

The **urgent** design challenge in building sustainable cities

February 14-16, 2008

Program



Department of Planning
and Community Development



CityEDGE
International
Urban Design Conferences



Australia's greenest and healthiest office building, Council House 2 (CH2), is the City of Melbourne's visionary new building with the potential to change forever the way Australia – indeed the world – approaches ecologically sustainable design.

CH2 has sustainable technologies incorporated into every conceivable part of its 10 storeys. A water-mining plant in the basement, phase-change materials for cooling, automatic night-purge windows, a facade of louvres (powered by photovoltaic cells) that track the sun – even the pot plant holders have involved a whole new way of thinking.

Message from the Lord Mayor of Melbourne

It is my great pleasure to welcome you to EcoEDGE 2 – Melbourne's premier conference aimed at finding sustainable design solutions for contemporary cities.

Our climate is changing with drastic effects - and we are the principle cause. Reversing the effects of climate change requires cohesive and immediate action within Australia and in cooperation with neighbouring countries. Both the Stern Report and the Intergovernmental Panel on Climate Change conclude that the world is now at the cross-roads.

The City of Melbourne is a committed and active participant in international forums such as the Clinton Global Initiative. Over the past decade we have put in place a number of effective sustainability programs, including the development of transport strategies, planning schemes and the opening of Australia's greenest office building, Council House 2.

With a goal to ensure our cities remain sustainable, EcoEDGE 2 will explore the design challenges facing major urban centres. It promises to lead international debate while presenting the work of world leading architects, urban planners and politicians.

The CityEDGE series of conferences has been presented by the City of Melbourne since 1998. EcoEDGE 2 is part of our strategy to shift community behaviour and urban planning to ensure Melburnians enjoy the quality of life for which our city is famous for many years to come.

We invite you to join us. Contribute to this important forum and be part of the solution to climate change.

Lord Mayor



EcoEDGE 2

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February 14-16, 2008
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Melbourne



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The EcoEDGE 2 conference is presented by the City of Melbourne.

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EcoEDGE 2



Speakers biographies

ROB ADAMS, DIRECTOR, DESIGN AND URBAN ENVIRONMENT, CITY OF MELBOURNE

MELBOURNE

Prof. Rob Adams has over 30 years experience as a practising architect and urban designer. As Director Design and Urban Environment for the City of Melbourne he has produced a prolonged and consistent output of design-research based urban projects and strategies, worthy of over 80 state and national awards for excellence. Cross-cultural and interdisciplinary collaboration has formed a critical underpinning of Rob's work as illustrated with his urban design research with Danish Urban Designer, Jan Gehl.

Rob is a passionate believer in the good design of cities and the important role to be played by all levels of Government. A champion of both the arts and environmental sustainability he has worked to ensure that good urban design is established as a platform for City development into the 21st Century. He was recently awarded an Order of Australia (AM) on the Queen's Birthday honours list, in recognition for services to urban design, town planning and architecture.

BRIT ANDRESEN, ARCHITECT, ANDRESEN O'GORMAN ARCHITECTS,

THE UNIVERSITY OF QUEENSLAND

Brit Andresen has been awarded the RAIA Gold Medal for 2002 in recognition of her outstanding achievements as an academic and design architect during a sustained period in Australia and overseas. Andresen is recognised for her holistic commitment to an architectural vision and her expertise in areas such as the work of Alvar Alto. She is director of Andresen O'Gorman Architects and Professor at the University of Queensland.

XUEMEI BAI, SENIOR SCIENTIST, CSIRO SUSTAINABLE ECOSYSTEMS

Xuemei Bai is a Senior Science Leader at CSIRO Sustainable Ecosystems, assessing future pathways towards more sustainable cities. This focuses on urbanisation and environmental change, urban-industrial ecology, urban environmental management and policy, urban resilience and sustainability transition in Asia. Xuemei's current affiliations include the Science Steering Committee of Human Dimensional Program for Global Environmental Change (IHDP) Industrial Transformation Core Project amongst other organisations.

STEFAN BEHNISCH, BEHNISCH ARCHITEKTEN

Stefan Behnisch is an advocate and educator of sustainable building design. He founded Behnisch, Behnisch & Partner in 1989 and with offices in Stuttgart (Germany) and Venice (California), the firm deals with work ranging from single family houses to city complexes. The multi-award winning Genzyme Centre (Cambridge, MA, opened in 2004) earned LEED Platinum, the highest rating awarded by the United States Green Building Council, in 2005.

MIKE BERWICK, MAYOR, PORT DOUGLAS, AUSTRALIA

Mike Berwick has been Mayor of Douglas Shire in Far North Queensland since 1991. As a Councillor he is involved in many regional, state and national committees and organisations dealing with natural resource management and related issues. He advocates for biodiversity conservation to become a core function of local government. In 2002, Port Douglas Shire became the first community in the southern hemisphere to meet the criteria for a target-based green accreditation system.

SCOTT BOYLSTON, SAVANNAH COLLEGE OF ART AND DESIGN

Scott Boylston is graphic designer and professor at The Savannah College of Art and Design, Savannah, Georgia, USA. Concentrating on the social responsibility of the graphic designer, he has developed curricula on the ethical considerations that a graphic design practitioner faces. Boylston has published short stories, poetry on environmental degradation and books on graphic design practices. His poster designs have been part of international shows on topics like prison reform, immigration rights, globalisation and governmental hypocrisy.

JAMES BREARLEY AND QUN FANG, BREARLEY ARCHITECTS + URBANISTS, CHINA

Australian trained James Brearley and Qun Fang established BAU, an Australian design focused architecture and urban design firm based in Shanghai. An interdisciplinary approach to architecture, landscape, urban design and planning encourage the success and comprehensiveness of their projects. BAU, along with Steve Whitford, won the first prize in the 2001 International Urban Ideas Competition for their project City Centre: City of Ningbo, Beilun. Brearley is adjunct professor at RMIT University.



Speakers biographies

MICHAELA BRÜEL, EUROPEAN GREEN CITIES NETWORK, COPENHAGEN

Michaela Bruel is the representative for Copenhagen at the European Green Cities Network (EGCN), a forum for dissemination of knowledge and experiences of sustainable urban housing initiatives and technologies in order to stimulate market development and help speed up innovation.

Brüel has been a Member of the CABERNET (Concerted Action on Brownfield and Economic Redevelopment NETWORK), EU program 2002-04 and maintains strong relations with CABERNET.

TIM COSTELLO, CEO, WORLD VISION, AUSTRALIA

Since 2004, Tim Costello has been serving as the chief executive to World Vision, Australia. Costello was awarded Victorian of the Year in 2004 in recognition of his public and community service, and in 2005 was awarded the Officer of the Order of Australia. He has previously served as a Baptist church minister, local mayor and an executive director of a Christian not-for-profit organisation.

PETER DAVIDSON, CO-FOUNDER, LAB ARCHITECTURE STUDIO

Peter Davidson co-founded LAB architecture studio in 1994 with Donald Bates, subsequently winning the design competition for Federation Square in Melbourne. Prior to this, he taught at the architectural association and Bartlett school of architecture in London. Peter continues to contribute to numerous teaching and pedagogical initiatives in Australia and abroad and to lead and employ the studio's design projects throughout Australia, Asia-Pacific, China and Europe. Peter is currently a respected adjunct professor at both the University Technology in Sydney and MIT in the USA.

NORMAN DAY, ARCHITECT, MELBOURNE, AUSTRALIA

Norman Day is a practising architect, adjunct professor of architecture (RMIT) and architect writer for The Age. He has designed and built in Australia and Asia, notably in Melbourne, Canberra, Dili, East Timor and in Vietnam (Ho Chi Minh City and Can Tho). He worked with the late Robin Boyd and Professor Frederick Romberg before starting his own practice in 1971, now with offices located in Melbourne, Ho Chi Minh City, Bangkok and Dili.

GERARD EVENDEN, SENIOR PARTNER, FOSTER + PARTNERS, UK

Foster and Partners' work includes infrastructure, architecture and product design. Their masterplan for Masdar takes their sustainable initiatives, which includes the Green Library of the Free University in Berlin, the proposed Khan Shatry Entertainment Center in Kazakhstan, and a mixed use ecological tower in Siberia, to a new scale. The six million square meter development uses the traditional planning principals of a walled city, together with existing technologies, to achieve a zero carbon and zero waste community - a world first.

WIM HAFKAMP, NICIS INSTITUTE, THE HAGUE, ERASMUS UNIVERSITY ROTTERDAM

Wim Hafkamp is director of urban research and practice institute at the Nicis Institute in The Hague. He is a specialist in modeling the economic affects of more sustainable environmental policies. Previously, he was professor of environmental studies and head of the Erasmus Centre for Sustainable Development and Management at the Erasmus University, Rotterdam. He is a member of the Dutch Advisory Council on Housing, Spatial Planning and Environment, and the council for Transport and Infrastructure.

BERNARD KHOURY, ARCHITECT, DW5, BEIRUT

Bernard Khoury became known for building discothèques and restaurants, notably Club B018 and Centrale, that serve as intelligent monuments intended to transform the trauma of civil war. His radical architecture recognises traumatic events instead of negating them. He is cofounder of Beirut Flight Architects and lectures in architecture at Beirut's American University and in universities and academic institutions in Europe and the United States.

NEVILLE MARS, DIRECTOR, DYNAMIC CITY FOUNDATION, BEIJING

Dutch architect Neville Mars is the director of the Dynamic City Foundation (DCF) in Beijing, engaged in urban research and design focused on China's rapid urban development. China's formulated goal to build 400 new cities by 2020 has become the framework of a comprehensive research project looking at long-term design solutions in a context characterised by hyper-speed market-driven development. Findings and proposals of this project will be published in January 2008 titled The Chinese Dream; a society under construction.



Speakers biographies

JOSSY MATERU, SENIOR HUMAN SETTLEMENTS OFFICER, UN-HABITAT, NAIROBI

Jossy Materu is Senior Human Settlements Officer in the Urban Development Branch, UN-HABITAT. With Masters and Doctoral degrees in Urban and Regional Planning from the University of Sheffield UK, Mr Materu has over 20 years working experience in the fields of Urban Planning and Management, Decentralisation, and local government capacity building. He has also published extensively in these areas. Having worked as Professor of Urban Development in Ardhi University, Dar Es Salaam, Tanzania prior to joining UN-HABITAT, Mr. Materu has offered consultancy services to a myriad of international, regional and national organisations.

SANTHA SHEELA NAIR, DEPARTMENT OF DRINKING WATER SUPPLY, INDIA

Santha Sheela Nair is in charge of rural sanitation as the Secretary, DDWS, Ministry of Rural Development, Government of India, presently stationed at New Delhi. She is a leading figure in the sustainability debate in India, ensuring that sanitation issues are given high priority at all government levels. Nair is an ardent promoter of rainwater harvesting.

KEVIN O'BRIEN, ARCHITECT, MERRIMA DESIGN, QUEENSLAND

Merrima Design is a working association of Indigenous architects and designers. Initiated in 1995, it is led by Dillon Kombumerri (Yugembar people, NSW Government Architect's Office, Sydney), Kevin O'Brien (Kaurareg and Meriam Mer people, Kevin O'Brien Architects, Brisbane) and Alison Page (Tharawal people, Gunya Life, Coffs Harbour). The association is recognised for harnessing Indigenous knowledge in the pursuit of meaningful architecture and design. Collaborations are sought with Indigenous communities in order to reveal specific identities that literally ground each project. This informs the design process. More importantly it implies the intention to make settings that support culture - ultimately sustaining a people.

ENRIQUE PENALOSA, FORMER MAYOR, BOGOTA, COLUMBIA

Enrique Penalosa is a former mayor of Bogotá, Columbia having served during the years 1998-2001. During his tenure he promoted a city model giving priority to children and public spaces. He implemented a restriction of private car use in the city while instituting from scratch a successful Bus Rapid Transit System, Transmilenio, and built hundreds of kilometres of sidewalks, bicycle paths, pedestrian streets, greenways and parks.

Enrique has recently moved back to Colombia after being a visiting scholar at New York University, working on a book about a Third World city model, which covers fields such as transportation, land use and housing for the poor, pollution abatement, and public space. He has already published a number of books, including Democracy and Capitalism: Challenges of the Coming Century.

BERNARD SALT, KPMG AUSTRALIA

Bernard heads KPMG Australia's Property Advisory Services group which provides demographic and consumer trend advice to business. Being one of the leading and most respected speakers on the Australian corporate speaking circuit, Bernard is a columnist for The Australian's weekly Primespace and monthly Wish magazines, as well as other publications. He is also the author of best-selling book The Big Shift published in 2001, now in 3rd edition and The Big Picture published in 2006.

HELLE SØHOLT, PARTNER, GEHL ARCHITECTS, COPENHAGEN

Helle Søholt is a founding partner, Project Manager and Director at Gehl Architects. She teaches architecture and urban design at DIS - Denmark's International Study Program in Copenhagen. Helle graduated with an MA in Architecture and Urban Design from the Royal Danish Academy of Fine Arts in Copenhagen, and an MA in Architecture from the University of Washington, USA. She has wide national and international experience with urban design, including public life surveys, urban quality analyses, development of strategy plans, public space plans, public space programs and design.

MECHTHILD STUHLMACHER, PARTNER, KORTEKNIE STUHLMACHER ARCHITECTS, AMSTERDAM

Mechthild Stuhlmacher together with Rien Korteknie founded Korteknie Stuhlmacher Architects in 2001. The firm deals with housing, experimental housing, public buildings for education, sports and culture, commercial buildings, urbanism and art in public space. Stuhlmacher and Korteknie are founding members of the Parasite Foundation, an organisation focused on high-quality temporary building. Mechthild Stuhlmacher has taught architectural design at Delft University of Technology since 1997.

Program

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Federation Square
Melbourne



DAY ONE | PROGRAM | Thursday 14th February

CONFERENCE OPENING

- 12.00pm Registration
- 1.15pm Official Opening, Lord Mayor John So
Introduction – The Melbourne Case-Study, Prof Rob Adams AM
Welcome: Genevieve Overell
Sponsored by the City of Melbourne

GREEN GOVERNMENT

How does Government 'walk the sustainability talk' in guiding the future development of our cities? How can urban sustainability and green energy policies translate into action for all sectors of the community, not just for those who can afford the 'green' development agenda?

- 1.40pm Enrique Penalosa, Michaela Bruel, Peter Davidson
Panel Discussion – Q&A with Audience
Sponsored by DPCD
- 3.10pm Tea Break
- 3.40pm Wim Hafkamp, Mike Berwick, Norman Day
Panel Discussion – Q&A with Audience
Sponsored by Transport Victoria

FINISH

6.00pm Melbourne Conversations Event

The Urgent Design Challenge – building sustainable cities For the first time in human history more than half of the world's population lives in cities. As the world experiences rapid climate change, the design industry faces an urgent challenge on how better urban planning and densification of our cities can significantly reduce our impact on the environment.

Sponsored by ING & Hansen Yuncken, Presented by the City of Melbourne

Three international and three local sustainability experts debating the levels and types of urgency involved in the question 'What is the design challenge in building sustainable cities?'

Entry from 5.30pm

Where: BMW Edge, Federation Square.

DAY TWO | PROGRAM | Friday 15th February

GREEN URBANISM

What are best practice models of green urban design and how does the design profession engage in ethically responsible development in the proliferation of mega-cities across Asia?

- 8.30am Registration
- 9.00am The Hon. Justin Madden MLC, Santha Sheela Nair, Jossy Materu
Sponsored by RMIT
- 10.00am Tea Break
- 10.30am Xuemei Bai, James Brearley and Qun Fang, Neville Mars
Panel Discussion – Q&A with Audience
Sponsored by Major Projects Victoria
- 12.30pm Lunch

GREEN BUILDINGS

What is the responsibility of designers in encouraging clients to adopt green building technologies and sustainable urban environments? What are the future challenges for ensuring that green design is the norm rather than the exception across global architectural practices?

- 1.30pm Brit Andresen, Kevin O'Brien, Bernard Khoury
Panel Discussion – Q&A with Audience
Sponsored by DHS
- 3.00pm Tea break
- 3.30pm Stefan Behnisch, Helle Soholt, Scott Boylston,
Panel Discussion – Q&A with Audience
Sponsored by VicUrban

FINISH

6.00pm Cocktail Party - Eureka Tower

COCKTAIL PARTY - Hosted by CityEDGE

The conference party will be held on the 89th floor of the prominent Eureka Tower. Join us for drinks and canapés from 6.00pm till 8.00pm on Friday and enjoy the perfect vantage point over Melbourne.

DAY THREE | PROGRAM | Saturday 16th February

GREEN URBANISM

What are best practice models of green urban design and how does the design profession engage in ethically responsible development in the proliferation of mega-cities across Asia?

- 8.30am Registration
- 9.00am Bernard Salt, Mechthild Stuhlmacher, Tim Costello, Gerard Evenden
Panel Discussion – Q&A with Audience
Sponsored by Victorian Association of Forest Industry
- 11.10am Thank you – Prof Rob Adams AM
- 11.20am CLOSE
- 2.00pm Tours/Events (please see Page39)

*Program correct at time of printing



Abstracts | Day one

Speakers

**ROB ADAMS, DIRECTOR, DESIGN AND URBAN ENVIRONMENT,
CITY OF MELBOURNE,**

MELBOURNE

FROM INDUSTRIAL CITIES TO ECO-URBANITY; THE MELBOURNE CASE-STUDY

Rob Adams uses the case of Melbourne to explore developments which led From Industrial Revolution to EcoUrbanity. He argues that the 20th century will go down in history as the century that lost the art of city making. In an overreaction to the Industrial Revolution, city planners and designers followed a host of urban design philosophies, most of which led to the slow dilution of the urban fabric and experience.

From the Garden City Movement which resulted in suburbia, to the CIAM Towers in a Park, which segregated out the city's activities and led to planning zones – the casualty was the public realm of our cities. Streets moved from being the primary meeting spaces for people to conduits for the automobile.

Many cities have actively pursued and implemented urban design strategies to arrest the decline. From the acupuncture approach to Bilbao, the public infrastructure of Bogota, the public spaces and social change projects in Copenhagen, cultural institutions of Temple Bar – Dublin, height limits in central Berlin, the sustainable agenda of B001 in Sweden, or the city wide strategy of Melbourne.

The results have seen an improvement in the social, economic and environmental indicators for these cities. Excitingly, Adams argues, the 21st century is seeing the convergence of this new urban design approach with considerations of future urban sustainability. Those factors such as density, mixed used, connectivity, adaptability, local character and a high quality of public realm that are now recognised as driving good liveability are identical to the factors that are responsible for environmental sustainability.

The road to Eco-Urbanity, Rob Adams will propose, is likely to parallel the roads to liveability and economic vitality. He will explain using the example of Melbourne, which has turned its central city from a mono-functional business centre into a multi-functional activity centre that has, on numerous occasions, won the most liveable city rating.

This paper will present the strategies that Melbourne has implemented over the last 20 years to create a more liveable and now a more sustainable city to outline future potential projects which would propel Melbourne to the forefront of the Eco-Urbanity debate.

ENRIQUE PENALOSA, FORMER MAYOR, BOGOTA, COLUMBIA

SOCIAL EQUITY AND ENVIRONMENTAL SUSTAINABILITY

Environmental sustainability does not imply a conflict with social equity objectives or quality of life. On the contrary, it is amazing that policies aimed at achieving social equity or quality of life, are exactly the same as those needed for environmental sustainability.

Our objective was a city especially friendly to pedestrians and bicyclists. Such a city would be friendly to our most vulnerable citizens: the poor, children, the elderly and the handicapped. Such a city required investments in slum improvements, parks, schools, children's nurseries and bicycle-ways.

The most powerful policy to help the poor in a developing country city is one that restricts private car use. Automobile infrastructure requirements devour scarce funds which could be used for education, housing, parks and other needs of the poor. A low density, highway based, urban or rather suburban structure is very unfriendly to the poor. In such environments public transport is scarce and expensive and bicycle transport is not an option. And high velocity roads going through low income areas destroy their quality of life.

Building highways does not solve traffic problems, as it is evident in North American cities such as Los Angeles, Atlanta or Montreal. Bigger and faster urban and suburban roads stimulate longer drives and farther away low-density developments. Longer drives generate as much traffic as more cars. And low density developments cannot be served with low cost, high frequency public transport.

One could believe that developing country cities where less than half of homes own cars would be fertile environments for private car restrictions and more sustainable urban models. Yet the car owning minority concentrates most political power and it is very difficult for the poor to identify the conflicts between automobile needs and their own.

Inequality is at the root of obstacles to create more liveable, more walkable, more sustainable cities in developing country cities. Inequality is much more acute in developing country cities than in advanced cities. Moreover, it is one of the main characteristics of backwardness. In such environments upper and upper-middle classes do everything possible in order to avoid mingling with the poor. Upper income citizens live in private spaces. They jump from one of these private spaces to another in capsules called automobiles; they jump from their garage at home to the underground parking at the office; from the office they jump to the covered parking at the mall; from the mall they jump to the country club and on weekends sometimes they jump to country houses. They can go for months without stepping on a sidewalk.



Abstracts | Day one

Speakers

ENRIQUE PENALOSA, Continued

They resist radically efforts to restrict car use, even such obvious ones such as not allowing them to park on sidewalks. As mayor I was almost impeached for such efforts. Although it is not in any Constitution, they consider parking to be an inalienable fundamental right. They do anything within their power in order never to take public transport, where they have to mingle with the poor, under conditions of equality. And only a rare and adventurous few ride their bicycles to work.

Public transport also has to be good in order to attract car owners. It is fair and it will be necessary to structure schemes to charge for car use, similar to those in place in London, Stockholm of Singapore, so as to funnel funds to make public transport faster and more pleasant.

It is not possible to design a transport system unless we know what kind of a city we want. It is very different if we aim to have a city like Atlanta than if our goal is more like Amsterdam or Zurich. Good transport is not an end in itself. It is only a means to a kind of city, to a way of life. If we design a city for people, for children, for the elderly, it will also be a sustainable city in environmental terms, a more equitable, more inclusive city and a more competitive city as well.

We are still far from reaching our dream. Powerful political forces still keep urban design around car needs rather than human needs. Yet we continue working to construct a shared vision where a great city in terms of mobility is not one with elevated highways, but rather one where a child in a tricycle can safely go everywhere.

MICHAELA BRÜEL, EUROPEAN GREEN CITIES NETWORK, COPENHAGEN

COPENHAGEN IS A GREEN CITY IN EUROPE

Copenhagen has a long tradition of being a “green” city in the sense of practising sustainable urban planning. The Finger Plan (from 1947) directs new urban development to be concentrated along suburban train lines radiating from the City of Copenhagen. Instead of letting the growth of the city take place in concentric layers, creating urban sprawl, urban development should follow “the fingers” from the palm - the existing built-up areas. In between the fingers, green wedges should be used for recreational purposes.

One of the overall objectives of Copenhagen’s Municipal Plan is to develop a sustainable urban and transport pattern in which urban development and traffic infrastructure are harmonised. This means traffic requirement is met by the lowest possible level of individual car traffic. Urban development is to be localised close to stations so that an environmentally sustainable urban and transport pattern is promoted. In a densely built-up city, the green and blue recreational areas are valuable. They are an important part of the cultural heritage of the city.

Copenhagen is well-known as the “City of Bikers” due to its longstanding and lively bicycling tradition. The city is also known internationally as Europe’s green metropolis. Green spaces are a natural part of the urban development. The historic and scenic features, for example the old ramparts, have left their mark on the city.

In 2000, Local Agenda 21 was included in the Danish Act of Planning. The City of Copenhagen passed a set of guidelines for sustainability in building and construction that cover environmentally responsible project planning, water, heat, electricity and gas as resources, waste disposal, healthy construction materials and green areas. All municipal building, construction, urban renewal and social housing which is being subsidised must follow the guidelines. Private contractors are urged to follow the guidelines – and many do so, especially when they benefit from demonstrating a “green profile”.

Public participation has been a vital part of the Danish planning legislation since the Planning Act of 1975. It requires physical plans to be sent into public hearing at a minimum of 8 weeks. The City of Copenhagen puts great emphasis on public participation. Proposals of local plans are presented to the citizens at meetings, on the home page of the planning administration and at exhibitions at the local libraries.



Abstracts | Day one

Speakers

MICHAELA BRÜEL, Continued

The Establishment Scheme 2008-10 of the Copenhagen Technical and Environmental Administration involves Two strategic themes: Urban Life and The Environment. Its key priorities are: environmentally sustainable urban developments, a clean and healthy metropolis, centre of the world's climate policy (the summit in 2009 in Copenhagen), the world's best bicycle city and a green and blue capital.

Our goals:

- By 2010, all urban development matches the criteria of environmental sustainability
- Two areas are designated as areas aiming at environmental sustainability and CO2 neutrality
- In all architects' competitions arranged by the City of Copenhagen, the entrants must account for to which extent they come up to the minimum demands of the above mentioned guidelines of sustainability in building and construction
- In 2010, a specific number of private contractors have implemented their schemes according to the guidelines

European Green Cities Network (EGCN) was established in May 1997. This coincided with the introduction of a new EU project "European Green Cities" comprising 11 demo projects for low energy building in nine EU countries.

The focus of the EGCN was directed from individual buildings to cities as the major driving force for sustainable housing development. This was based on a Green City concept of promoting a more sustainable urban management by using demo projects as inspiration to broader urban planning of energy efficient housing.

The network participants include cities, housing associations, consultants and institutions. All of have an interest in sustainable housing and energy supply. EGCN participants often become partners in new projects and use the EGCN project conferences to exchange experiences and inspiration.

PETER DAVIDSON, CO-FOUNDER, LAB ARCHITECTURE STUDIO

LAB ARCHITECTURE STUDIO

This presentation will reflect upon LAB architecture studio's international experience in sustainable urban design and master planning, and the understanding this affords to the diverse range of global responses to the evolving challenge of city making in the evolving era of climate change.

It will cover issues such as the impact on planning outcomes of governmental structures and decision making processes, as well as the role of public research and policy in assessing existing development patterns and contributing productively to changing market outcomes.

In Melbourne there are specific challenges, regarding the shape of our metropolis and whether its overriding suburban form is sustainable into the future and what densities may be required to achieve this.

Addressing these issues will raise the inescapable question of whether liveability and sustainability is the same thing.

WIM HAFKAMP, NICIS INSTITUTE, THE HAGUE, ERASMUS UNIVERSITY ROTTERDAM

CONFLICT AND TENSION IN THE SUSTAINABLE CITY

The "sustainable city", as we came to know it in the nineties, is a city where the energy comes from renewable sources and where there is no pollution of air and water. Material flows are managed through global supply chains, cradle to cradle, industrial ecology. People move on foot, by bicycle, or they have a car sharing arrangement. They eat organic food, preferably from regional producers, community supported agriculture.

This is the ideal picture of the sustainable city as it appears in the literature – scientific, policy and activist. In our everyday lives we work to make this picture a reality, as well as in different professional domains from urban planning, housing and transportation, to public policy and education.

In recent years, the context in which we work for a sustainable city has changed, particularly in The Netherlands. Urban issues on the political agenda have been redefined, prioritising dysfunctional neighbourhoods. These issues focus on safety in the streets, crime, multi-problem households, inter-religious and intercultural tensions, language deficits among migrants, school drop-outs, civic participation, poverty and employment.

The key challenge is to design new approaches to sustainable development on the urban scale, which cover these social and economic concerns along with the environmental ones. The design challenge is no longer about urban form,



Abstracts | Day one

Speakers

WIM HAFKAMP, Continued

the built environment per se, or the quality of public space. It is about shaping interactions between all those involved: residents, teachers, employers, housing corporations, youth workers and police through politicians and ministers. Shaping interactions, while acknowledging diversity in identity, fear and antipathy, aimed at participation.

An interesting policy experiment was carried out under the previous government, in which duo's were formed, each consisting of a government minister and a senior policymaker (secretary general or director general). Each duo 'adopted' a critical neighbourhood situation in one of the main cities, and worked 'hands on' with all people involved on improvements.

Two social scientists monitored the experiment, with three striking conclusions:

1. A number of public entities from different sectors and different government levels are involved. This means legislation is complicated and there are competency struggles.
2. Most public services do not employ their best professionals where they are most needed for example teachers, policemen, health professionals and housing managers.
3. There is little or no communication between public bodies and the civic initiatives in neighbourhoods.

A new policy initiative was launched recently, in which 'charters' were drawn-up between municipalities and the national government to turn around the 40 most problematic neighbourhoods in the major cities in The Netherlands. In the 40 neighbourhoods, public housing corporations are a key stakeholder because they own close to 90 per cent of the housing stock. The charters were draughted 'bottom-up' initially between the municipalities and their relevant neighbourhoods which identified key problem areas and articulated major improvements, investment projects, and new initiatives in domains such as education, health care, safety and work.

The housing corporations will invest over 2 billion euros in this effort, most of which will be spent on renovating and replacing the existing, eroded housing stock. No doubt, that in this investment program green solutions will be integrated, such as double glazing, advanced insulation, district heating, geothermal energy storage, water retention and efficient use, community gardening and pedestrian/cyclist accessibility.

These efforts are about approaching sustainability in the way the Brundtland Committee intended when it defined sustainable development as 'meeting the needs of the current generation without compromising the ability of future generations in meeting their needs'.

In my presentation I intend to discuss some representative best practices in renovation and restoration at the neighborhood level.

MIKE BERWICK, MAYOR, PORT DOUGLAS, AUSTRALIA

URBAN ECO-FOOTPRINTS: DESIGNING CITIES SUCH THAT LESS IS MORE

The ecological footprint of cities stretches far beyond their boundaries. Local, regional and global landscapes supply clean air, water, energy, food, construction materials, recreation and spiritual replenishment. The ecosystem services underpinning those resources are rarely paid for, so the asset is depleting. Responsible and financially astute individuals, families, business and government are seeking to reduce their environmental footprint, either by using less or offsetting it.

Urban design is about using less. Ecosystem service offsets pay for the balance. Modern lifestyles require a combination of the two to minimise our ecological footprint.

Looking at the landscape that provides those ecosystem services, the great majority is privately controlled or managed by farmers, graziers and foresters. We therefore depend on the rural land manager for those ecosystem services. For example, biodiversity will not survive in the island reserves we call national parks - corridors of endemic ecosystem will need to join them. The rivers, streams and wetlands will also need rehabilitation. Farming must become sustainable which is the farmer's duty of care. Sacrificing production land for biodiversity is a public good.

The regional NRM system is an institutional mechanism that can be used to define, measure and offset people's ecological footprint in both the urban footprint and the rural landscape. Setting the right performance indicators for development inside the footprint is a function of urban planning and provides the measure and the mechanism for development offsets. Central government's taxation, for example carbon taxes and regulatory regimes, for example carbon trading, can ensure the environmental costs of development, production and living are paid for. Regional NRM bodies are well placed to design and deliver those offsets in urban and rural landscapes.



Abstracts | Day one

Speakers

MIKE BERWICK, Continued

Current government investment is far too small to have an impact in the conversion to sustainable living or in landscape restoration. However if individuals and private sector either paid for or offset their ecological footprint, landscape restoration on a broad scale would take hold, sustainable urban and industrial development would happen overnight. Farm income would come from a combination of production and ecosystem services. Australia would keep it's biodiversity

These are not economic burdens, they are opportunities. More importantly they are fundamental to the survival and well being of all species including humans.

Mechanisms to deliver this can be built into local government and regional planning schemes through a combination of green design and offsets. The delivery of offsets requires a system of metrics that will withstand scrutiny of courts and others. Metrics for carbon and water are well advanced, those for biodiversity and scenic amenity are still rudimentary but to reach zero ecological footprint, all of them are needed.

As well as the metrics, a legal mechanism built into the planning system to facilitate payment is required – I suggest this would be in the form of an infrastructure charge, just like water and sewerage. Combined, this would present a complete package that takes us down the road to zero ecological footprint.

NORMAN DAY, ARCHITECT, MELBOURNE, AUSTRALIA

A SUSTAINABLE MELBOURNE?

Melbourne is unprepared while it is lurching towards a probable population of 10 million later this century.

The city is growing fast and entertainingly, but without thought for a truly sustainable future nor a plan for a safe environment for the future.

Architects are busy building pretty things, but they have overlooked the most basic of all professional responsibilities – that of the future and their part in establishing a worthy history.

They seem to have dropped that role in the rush to now, and their efforts appear to be as generators of a commodity, marketed as chic, cool, glamorous and slick, rather than as contributors towards community responsibility and service.

Issues of sustainability, low carbon footprints, drought, waste, emissions and global warming should set our future plans so they can deal with greater density, more transport, vegetation in retreat, lack of water.

A good vision, well constructed, will enable a sustainable future.

Abstracts | Day two

Speakers

SANTHA SHEELA NAIR, DEPARTMENT OF DRINKING WATER SUPPLY, INDIA

SUSTAINABLE DRINKING WATER SUPPLY SYSTEMS AND SANITATION FOR TOWNS AND CITIES OF THE FUTURE - CASE STUDY FROM THE DEVELOPING WORLD: TAMIL NADU, INDIA

Chennai City, capital of the state of Tamil Nadu in India is one of the four big metropolises with a population of over 5.6 million. The city became infamous for its acute drinking water scarcity and huge unsustainable systems of long distance transportation of drinking water by tankers and pipelines. Chennai City was also exploiting the ground water table in the city and its neighbourhood to "unforgivable depths".

The need for in situ solutions at affordable costs, and more importantly solutions which would be sustainable, lead to the adoption of rooftop rainwater harvesting and recharge mechanisms of rainwater into ground water aquifers. This represented a more lasting, wholesome, sustainable, and environment-friendly solution.

Providing a civic service moving from water scarcity to water security, with active citizen's participation in a wholly green-centric paradigm, is a model for large urban cities to consider for a potable water supply.

Urban sanitation has similarly been plagued by massive investments on underground sewage systems which are unsustainable both in monetary and environment terms. ECOSAN which takes water out of the toilet and allows re-use of nutrients from human waste is an answer to new cities and towns in developing 'human waste disposal models' which are sustainable.

Many cities around the world are pursuing the concept of ecologically safe-sanitation ECOSAN, spearheaded by environment activists and enlightened civic bodies. The case study on ecologically safe sanitation in the urban town Musiri, Tamil Nadu, India, is a model for developing countries in particular who have neither the resources in money or in water for traditional underground sewage systems.

The new ECOSAN urban sanitation model should be adopted and be mainstream in all new urban development projects. Such a model should be of equal importance, if not more to all countries battling with sustainability issues in urban sanitation.

Abstracts | Day two

Speakers

JOSSY MATERU, SENIOR HUMAN SETTLEMENTS OFFICER, UN-HABITAT, NAIROBI

THE URGENT DESIGN CHALLENGE IN BUILDING SUSTAINABLE CITIES: THE CHALLENGE OF SLUMS

Urban design, like other professions of the built environment, was conceived to provide order and promote the aesthetics of the built environment. However rapid urbanisation and global warming have brought to the fore new environmental challenges which have not been seen until now. Consequently, urban designers need to innovate in order to remain relevant.

The year 2007 was a turning point in human history. For the first time, half of humanity lived in towns and cities. In these towns and cities, especially in the developing world, the majority of people are living in slums. UN-HABITAT estimates that one in three people in the cities of the world are slum dwellers. The slum population is growing by about 100,000 every day and this figure is set to double by 2030 if present conditions continue unchecked.

This implies that two fifths of 5 billion people estimated to be living in cities by that year - translating to one fourth of humanity - would be slum dwellers. One of the urgent design challenges in building sustainable cities is therefore the urgent need to develop innovative design models and tools to improve the environmental conditions of slums around the world.

UN-HABITAT believes that the quest for sustainable urbanisation depends on the extent to which the human settlement problems of slums are addressed. In other words, the war against the problems associated with rapid urbanisation and global warming will be won or lost in slums.

The work of UN-HABITAT is guided by the Habitat Agenda on adequate shelter for all and sustainable human settlement development in an urbanising world. Within a framework of goals, principles and commitments, the Agenda offers a positive vision of sustainable human settlements where all have adequate shelter, a healthy and safe environment, basic services, and a productive and freely chosen employment. Two global campaigns on "Secure Tenure" and "Urban Governance" have been launched to help implant the Agenda. The Global campaign for "Secure Tenure" provides a framework for slum upgrading, whereas the Global Campaign on "Urban Governance" provides a framework for sustainable urban development.

The UN-HABITAT paper will provide a background on rapid urbanisation and the growth of slums in the cities of the world. It will then move on to show how rapid urbanisation and global warming are inextricably linked, and how slum dwellers are at the highest risk with global warming. A following section will explore the new challenges of design in the wake of rapid urbanisation, rapid growth of slums, global warming, and inadequate capacities in the developing world to innovate. The paper will conclude with some recommendations on how to address the urgent design challenge in building sustainable cities.

XUEMEI BAI, SENIOR SCIENTIST, CSIRO SUSTAINABLE ECOSYSTEMS CITIES AND CLIMATE CHANGE

The vast majority of greenhouse gas emissions come from cities, and cities will bear the major brunt of climate change because cities are where people live and work. On the other hand, cities also concentrate the human capital, knowledge, and financial resources required to combat climate change.

Mitigating and adapting to climate change through better design and management measures, and changing the lifestyles of citizens, is increasingly important for cities. Many cities are already doing this through alternative energy and innovative design, and by reducing, reusing and recycling goods and materials. For example, in Rizhao City, China, a holistic approach to technology, business support, marketing and regulation resulted in 99 per cent of the city's central district citizens using solar energy for hot water. 100 per cent of Tokyo's construction waste is now recycled, and some of that is used to produce electricity; while Dong Tan, a new eco city near Shanghai, China, is being planned and designed as a zero emission city.

These examples demonstrate the high expectations of modern cities. However most still find it difficult to address global concerns like climate change at the city level. While the carbon performance of cities can be improved using better design, it is often the social, economic and political context surrounding design that impedes cities from addressing global environmental concerns. It is important to ask, to what extent can design alone solve the problem?

This presentation explores the obstacles, the opportunities for removing the obstacles, and some strategies for bringing global concerns down to the city level. Global and local environmental issues are closely linked, and the potential economic benefits arising from addressing global concerns at the local level may provide opportunities and incentives for cities to take action earlier. Cities at different developmental phases face correspondingly different environmental problems, and there are complex links between those issues.



Abstracts | Day two

Speakers

XUEMEI BAI, Continued

The connection between climate change and cities needs to be viewed from a system perspective, and put in an evolutionary context. We need to extend the temporal and spatial scales of urban design and management beyond city boundaries for cities to become champions in climate change mitigation and adaptation.

JAMES BREARLEY AND QUN FANG, BREARLEY ARCHITECTS + URBANISTS, CHINA

NETWORKS CITIES: SUSTAINING CULTURE, ECONOMICS AND THE ENVIRONMENT.

To achieve the current extraordinary pace of its urban development, China is utilising one standard urban planning formula. The formula is extremely efficient in creating vast expanses of urban substance at low cost and high profit to the state. Whilst it guarantees well-engineered cities, it fails to provide a foundation for sustaining social, economic and environmental life.

The default planning formula takes the form of large-scale, highly segregated land-use zones connected by sparse road grids. Housing zones make up the bulk of the resultant new Chinese urbanity. These zones are characterised by arrays of residential enclaves, each occupying an entire super-sized city block, and surrounded by large city streets lined with fences.

Although enclaves have a long tradition in China, the contemporary version introduces new characteristics: an exclusion of non-housing programs; a super-scale; and a uniform adoption of a building typology often taller than 10 floors. These gated communities are less successful at creating community than they are at creating social isolation.

The opportunity to balance the isolated enclaves with an active public realm is overlooked. Likewise, the opportunity to allow an active business life in close proximity to the large market of dwellers is lost. The new cities are high in density. However, they are also absolute commuter cities.

These are not cities of urban convenience. Experiences of developed nations have shown that land-use zoning is difficult, if not impossible, to undo. With thousands of cities throughout China applying the default planning formula, a reappraisal of the current formula and a range of new approaches is urgently and crucially needed.

In 2001, BAU and Steve Whitford developed an alternative planning strategy: Networks Cities. Five BAU networks proposals have since been awarded first prize in invited competition in China, and a 12 sqkm addition to Chengdu city is currently under construction.

The strategy utilises networks of land-use zones to achieve integrated cities - not segregated cities. The networks achieve adjacencies of land-use zones, not the re-creation of traditional mixed-use zones of assimilation. The strategy brings complexity back into the city without diminishing a sense of clarity. The networks enhance flexibility for unknown futures through the creation of hybrid zones.

Continuous networks of working, living, shopping, parks, entertainment and services can create an urbanity of equity, economic opportunity, walking convenience, and social interaction. Whilst urban planning alone cannot guarantee cities which sustain culture, economics and the environment, the networks strategy is one way to maximise their potential to do so.

NEVILLE MARS, DIRECTOR, DYNAMIC CITY FOUNDATION, BEIJING

THE GREEN EDGE – CHINA BETWEEN HOPE AND HAZARD

Nobel laureate Al Gore reminded us in his acceptance speech that the United States and China are the two major causes of global climate change. America warns us China will be the biggest polluter of the 21st century. China argues it has to catch up with the West, and is, in absolute terms, decades behind in polluting - a political deadlock.

The real difference between the USA and China is the former has evolved to become a fossil fuel dependent nation; the latter still has an opportunity to redirect its development away from such a landscape.

Embedded in urbanisation patterns are trends of behavior that will shape energy usage for many decades. The question is how?

China is facing all the problems of modern industrialisation at once. Yet sustainability as a discipline is very young in China. The problems are enormous but unlike, for instance the US, the level of ambition is equally awe-inspiring. Going green is often passionately embraced and high on the agenda of policy makers and concerned citizens alike.

Abstracts | Day two

Speakers

NEVILLE MARS, Continued

However, the meaning of a sustainable environment beyond basic non-toxicity (let alone of embedded trends) remains unclear. Green ambitions are mostly equivalent to adding more vegetation or employing basic technical 'greenification' features. The reality is a collection of well designed low-emission buildings can still amount to a poorly operating, unsustainable city. Pressured market-driven development simply leaves no time to conceive an over-arching approach. China's window of opportunity is rapidly closing.

This presentation will not focus on the technical or pragmatic possibilities available today, instead it aims to formulate a strategic agenda pertinent within the context of China's flash-urbanisation. The first task is to address China's unique and often contradicting conditions. Including:

- coal is the dominant fuel in China's long-term energy mix, yet it packs the most pollutants;
- China's land surface is vast (comparable to Australia) but closer inspection shows space is scarce and should be considered an essential and unrenowable resource;
- compact building typologies are common and popular; and
- China's flash urbanisation is tightly controlled yet policies to guide its development in reality exacerbate scattered unintentional and irreversible growth.

Such contradictions force us to think differently about sustainable planning. They present real hazards it can still evade and real hopes it can nurture.

The second step is to move beyond ad hoc solutions and address the question of what environment and society is ultimately conceivable. Can we design living environments that induce green consumers and can we design environments that adapt as their desire change?

Building the equivalent volume of the EU in the coming two decades can only ever be sustainable if the new China can respond to the burgeoning needs of the 900 million new urbanites. One-generation solutions will quickly erase the gains made and postpone the possibility of a green China. The time to imagine a flexible future is now.

BRIT ANDRESEN, ARCHITECT, ANDRESEN O'GORMAN ARCHITECTS, THE UNIVERSITY OF QUEENSLAND

THE SUSTAINABLE SUBTROPICAL CITY: AN ARCHITECTURE OF TIMBER FRAMED LANDSCAPES

In the design of Mooloomba House there are two primary intentions; one - to fix its location in the larger landscape by constructing as much of its small lot as possible as outdoor rooms whilst amplifying qualities of the site, and two to continue an exploration of the expressive capacity of construction through metaphor, geometry and the material properties of Australian hardwood.

The presentation will outline the underpinning principles of the development of these ideas to reveal how architecture can engage responsibly with becoming more holistically sustaining.

Home-grown and sustainable eucalyptus hardwood has usually been concealed in stud framing systems because it tends to shrink, harden, warp, twist, cup and crack after milling. This seems an unfortunate loss of architectural opportunity, both in terms of the material's high strength and durability and its potential to contribute to a building's expression.

In the frame of Mooloomba House, hardwood's excessive lateral movement is counteracted by vertically laminating thin members of opposing grain and sandwiching a 1200mm wall panel of 18mm waterproof ply between. The frame here also functions as wide "cover battens" over the sheet joints.

Exposing the frame as a skeletal structure and allowing it to play an expressive role allows the development of three architectural ideas that explore; visually binding together of the parts as a 'harmonic' whole; characterising space by its constructional form; calibrating transparency and degrees of enclosure in forming landscape relations.

The landscape, the tree, the climate, myth and socio-cultural values contribute to the development of distinct constructional forms of timber dwellings to the extent that it can be claimed that Queenslanders inhabit timber framed landscapes as : "The Nordic people still dream of wooden caves, (and) while the Japanese live in a world of penetrated layers." (Norberg-Schulz 1998:8)



Abstracts | Day two

Speakers

KEVIN O'BRIEN, ARCHITECT, MERRIMA DESIGN, QUEENSLAND

URBAN SUSTAINABILITY: SEP YAMA /FINDING COUNTRY

Australian cities reflect a devastating history of European occupation. Few, if any, gestures towards pre-colonial people and place exist. Needless to say, it is a position not many in civic offices wish to hear.

Admittedly, how many symbolic Aboriginal projects can any city really bare? Surely there is more to a city than public art or architecture or public space – perhaps cultural acknowledgement? As an idea, what happens if all began to synthesize? Perhaps an opportunity to sustain a complete sense of cultural memory in a time when technology wants us to speed up (and forget).

To consider this idea, one will need to imagine.

Imagine an Australia where cities have declined (not unreasonable, think Babylon, Pompeii, Woomera, Chernobyl, New Orleans, Rome, Detroit or Mexico City). Imagine a construct where the citizen's relationship with land, water and sky is paramount (even sacred). Imagine a smaller population (50 per cent reduced). This imagining is a mechanism to release cultural opportunities from an indigenous perspective.

What will be presented is a position. A position about the potency of place and what can be revealed if one opens their mind to the notion that there is no such thing as an empty landscape in the Australian condition. This notion exists as a precursor to European occupation and underlies each and every urban concentration in this country – be it city, town or house. The longer it is denied the more Australia mutates without moral sustainability. And the more our Aboriginal population continues to be marginalised within (and without) these urban settings. This has profound effects on not just architecture and urban planning but also that which strikes at the very heart of what it is to be a citizen of this country.

Sep Yama/Finding Country is the idea.

Various projects will be presented that illustrate the pursuit of this endeavour. Never before has the

Australian city been interrogated in this way.

BERNARD KHOURY, ARCHITECT, DW5, BEIRUT

SUSTAINABLE URBAN RECONSTRUCTION IN THE MIDDLE EAST: AN ACTIVE RECOGNITION OF THE CITY'S HISTORY

Beirut is a city that is represented in very romantic and sensational terms. This is sometimes a very reductive and over simplified fabrication of history. Beirut is an incredibly complex city. And it is also incredibly charming. The danger we face today is that of an excessive simplification in representing that city.

Beirut is being built by private developers. It is a very chaotic, schizophrenic city - it has no "coherence" in the western sense of the term. In this part of the world, there is very little institutional involvement in the making of public space. We only build for the private sector. And I realised while working in Beirut for the private sector that there was a whole aspect of our culture that architecture never seriously addressed.

In the early nineties there were great expectations for rebuilding the nation. In 1991, as a graduate student at the School of Design at Harvard, I worked on my first scheme for Beirut, it was called "Evolving Scars" - a project that translated my concerns about the rapid and systematic knocking down of the war damaged buildings in the former central district of the capital.

A public installation that made the demolition of the ruins an architectural act, "Evolving Scars", like many other projects of mine remained on paper. In the meantime, a substantial layer of the city was being wiped out along with its references to our immediate past. The new master-plan that was approved by a governmental decree was driven by a clear political agenda that aimed at sterilising this sector of Beirut.

When I came back to Beirut in 1993, like many other young architects of my generation, I naively believed that I could be one of the many soldiers in the collective reconstruction efforts to rebuild our cities. After a few years of mostly paper architecture and aborted projects, I realised that I was operating on the wrong front. The reconstruction project I was expecting never happened. I have given up on institutions now because they simply don't exist. However, Beirut remains an extremely challenging architectural laboratory – I don't think I would have been so challenged in any other city

My clients today are involved in private ventures driven by finance and commerce, and this is where I operate: I build for the rich. I don't do social housing, I don't do governmental projects, I don't build schools or museums and I probably never will. But I do believe that there is much to accomplish in the private sphere. Cities are built by the private sector through projects that are primarily driven by financial profit.



Abstracts | Day two

Speakers

BERNARD KHOURY, Continued

This is a reality in Beirut - this is the reality of every developing city everywhere. Denying this reality will prevent us from taking part in the making of our cities. Relevant architecture is sustainable architecture in such contexts and should not be limited to exceptional programs such as schools, corporate headquarters of international companies, museums, and public libraries.

My entertainment projects in Beirut - the Yabani project on the former demarcation line, the B018 project in the Quarantine, and the Centrale restaurant at the edge of the Beirut Central district, are about recognising and confronting different social realities and try to make these issues visible. In that sense these projects are very contextual. I don't see my work as representational - I am concerned about the very specificity of every single situation. My projects are not about the past and they are not about the future. They are about specific instances existing in my present.

Architects shouldn't think of their work as representations of the city, instead, they should be real players in the city. City planners think of the city through morphological terms, I think of a city as experiences. That is what interests me.

STEFAN BEHNISCH, BEHNISCH ARCHITEKTEN

SUSTAINABLE ARCHITECTURE: CONTEXTUALLY RESPONSIVE, RESPONSIBLE ARCHITECTURE

The term sustainability comes from the forestry industry and means that the annual harvest should be restricted to the amount of new growth on the same area of land per year. A sustainable approach to the use of natural resources means, in principle, that we should not consume more natural resources in any given period than could be regenerated in the course of that same time span.

Many people narrow "sustainability" in architecture down to energy consumption, for example kilowatt hours per square metres per year.

Amazing figures can be achieved if buildings are used by only a few people, in empty streets and on empty places. But this is obviously senseless and demonstrates that figures actually don't say much about the degree of sustainability of a building or environment. Sustainability is at least as much about qualities as it is about quantities. It is about the use of buildings and spaces: the more a building is used, the more efficient, the more sustainable it is. And this aspect, the usability, the quality, the wellbeing of the users is something we can probably influence much more than purely energetic aspects.

People tend to trust in what they can measure. But quality is not really measurable. One can describe or feel it, but one cannot measure it, except in terms of productivity and wellbeing.

What matters is to create buildings that can be used in a flexible and efficient manner. In order to achieve this, it is important to address the needs of the users, but also to get them to understand how their buildings function, to confer responsibility upon them. We always attempt, together with our clients and specialist consultants, to create buildings in which the users - often over 1,000 people - feel comfortable because they can adjust their environment to their specific requirements.

Over the years we have learnt it is possible to create both small and large buildings, simple as well as sophisticated environments for all kinds of users from researchers to office staff, executives to school children and artists. These buildings are not only efficient, but also attractive with elaborate details, fine materials, inspiring colours, scents of plants, all kinds of moods, and light and shade. By reserving spaces for the public, for example courtyards, restaurants, shops or cinemas at ground floor level, we integrate buildings in the public realm.

This is very important as buildings are part of their environment and must be seen in their context - their cultural, urban or rural, climatic, geographic, topographic context. Sustainable buildings are not isolated creations: they are closely interwoven in the fabric of their neighbourhood, the fabric of the site and its history, and of the surrounding infrastructure. The quality of the public realm, infrastructure, the urban setting are starting points of sustainable architecture and of urban spaces for a vibrant community.

The respect for nature is an essential aspect of our work. Our firm has explored and continues to explore ways of realising sustainable buildings and environments by making optimum use of natural resources such as light, wind, water, avoiding the extensive use of technical means.



Abstracts | Day two

Speakers

HELLE SØHOLT, PARTNER, GEHL ARCHITECTS, COPENHAGEN

SUSTAINABLE CITIES; PEOPLE CITIES

Sustainable cities are people oriented cities. In the very outset of planning we need to understand the basic human aspects and needs of people in an urban environment.

Many contemporary developments fail in terms of creating fantastic living conditions for people, and thereby failing to be sustainable in the long-term. As planners and architects we need to understand sustainability not solely as a green effort and environmental technical challenge, but carefully consider the human, cultural and social aspects of a development project to truly deliver sustainable developments in the future.

To ensure the best living conditions for the many people living in urban environments some basic needs of people have to be worked in to the planning and design of city areas.

To achieve the right balance of transportation the conditions for walking and cycling is hugely important in cities. And not only the fact that footways and cycle facilities are incorporated in the layout of streets, but also that the networks are of such a quality that they are inviting and safe for people to use.

Behavioral aspects, sensory experiences and needed stimuli for the human brain are all aspects we need to understand and consider in the design or urban frameworks.

The architectural methodology focuses mainly on understanding aspects of space and form. We often set out planning and designing buildings and landscapes with very little or no consideration for the urban activities and the end users in an area. The result can be aesthetic beautifully designed buildings, but often the case is the opposite, and the development is lacking human scale and fine detailing at eye-level.

In order to develop sustainable urban settings we should consider life first. Careful studies of how people use cities, mapping of people activities and simple people and pedestrian counts should be part of every planning department's methodology. Spaces can be better organised, planned and designed on this basis, and future buildings can better contribute to the network of spaces having considered a programming ensuring a close relation between indoor and outdoor activities.

Sustainability in people terms is based on some basic principles of assembling and integrating many activities and users in the same area, to reinforce conditions for walking, cycling and lifelong living aspects within each urban area.

In development terms it is important to start thinking in terms of proximity rather than density, and in smallness rather than effectiveness to ensure a great flexibility, which will make the developments adaptable over time.

In order to deliver sustainable urban developments, a new mindset has to be introduced. The management and the development process has to be led by political leadership and understanding of the basic people oriented principles allowing the process to be truly flexible over time. Legal plans should not be fixed, but act as frameworks, and human qualities should act as the urban design criteria guiding the development approval process.

Only with a social value base management process of the developments can a sustainable and flexible end result be achieved ensuring better life conditions for the many people living in urban areas, now and in the future.

SCOTT BOYLSTON, SAVANNAH COLLEGE OF ART AND DESIGN

A BUILDING IS NOT AN ISLAND : A SYSTEMS APPROACH TO SUSTAINABLE CITIES

Just as the entire concept of sustainability is dependent upon a systems-based understanding of the myriad forces at play in any one challenge, devising a city-wide initiative for sustainable strategies must successfully integrate the efforts and needs of the myriad organisations involved in the growth and operation of that city.

Unlike many mid-sized cities in the United States, Savannah, Georgia survived the transition to automobile-centric urban centre that occurred over the last half century with its human-centred aesthetic fully intact.

With a wealth of historic structures and a colonial era street plan that encouraged a pedestrian-oriented city environment, Savannah has recently entered a period of enlightened revitalisation to its urban centre.

Savannah's ongoing emergence as a vibrant, sustainable city began almost accidentally less than thirty years ago.

A loose consortium of planners has since been inspired by the Savannah College of Art and Design - which grew from one historic city building to nearly 60 re-adapted facilities throughout the city - to envision buildings, spaces and communities designed for their social, cultural, economic and environmental sustainability.



Abstracts | Day two

Speakers

SCOTT BOYLSTON, Continued

Much as living organisms acquire emergent properties through creative acts of adaptation, a broad ranging momentum has grown behind manifold efforts of architects, city planners, academics, business organisations and civic leaders to evolve a city that both builds on and learns from its past incarnations in order to continually adapt sustainable means for sustainable ends.

This talk will focus on how the emergence of a sustainable mindset in urban development has taken root in one mid-sized US city, and highlights the various projects—both completed and underway—that are enriching all citizens of this community, and reducing the negative impacts of its operation.

Abstracts | Day three

Speakers

BERNARD SALT, KPMG AUSTRALIA

“ENVIRONMENTALISM” AS A BELIEF SYSTEM

Author, columnist and business advisor Bernard Salt considers the psychographics of the green movement.

The story begins with the Frugals born in the 1920s and who in many respects were this nation's first greenies. But the Frugals green was not borne of their concern for the environment it was to lessen the cost of their footprint.

Then there are the consumerist boomers, the cynical Xers and now the Generation Y who are possibly the first generation to have been raised in environmentally conscious households. But why has this shift towards environmentalism emerged? Local drought and unpredictable world weather has made us aware today but could there be other motivating forces behind our embrace of environmentalism.

Bernard Salt asks about the role of environmentalism as a belief system. Are we 'guilty' about our prosperity and therefore look for impending calamity to restore balance to our universe. In either case with 80 per cent of the Australian nation living within 40km of the beach rising sea levels and unpredictable sea-based weather patterns means that global warming is a topic that will engage Australians for decades to come.

MECHTHILD STUHLMACHER, PARTNER, KORTEKNIE STUHLMACHER ARCHITECTS, AMSTERDAM

SMALL SCALED SUSTAINABILITY- PARASITE LAS PALMAS AND BEYOND

For us, sustainability has something to do with the way we look at the city as a whole, at the issue of time, durability and temporality, and at social, aesthetic and functional issues. Next to these issues there is our interest to experiment with and research environmentally sound structural systems. In our work - so far mostly small scale architectural objects - these different kinds of sustainability are not necessarily an end in itself but an underlying concern that determine the development of our projects in general.

During my lecture I will present our first, much publicised building, the Parasite Las Palmas, an experimental exhibition project from 2001. The small object constructed with solid timber panels still plays an important role for our way of thinking and designing. In a direct and deliberately demonstrative way the project dealt with issues such as urban densification and the importance of small scale, temporary interventions for a living city.

The project was the starting point for our ongoing effort to adapt European sustainable technologies to Dutch architectural practice.



Abstracts | Day three

Speakers

MECHTHILD STUHLMACHER, Continued

The presentation of later projects will explain the subsequent architectural development of various issues raised by the Parasite Las Palmas and will include projects like 'house No19', 'house in Lyon', 'rowing building Amsterdam' and the temporary, primary school extension 'de Toermalijn' in Rotterdam. Despite their obvious similarities each of these projects deals with different sustainable concerns such as the issue of mobility, flexibility and adaptability. Special attention will be paid to our educational facilities with their focus on spatial and material quality, budgetary limitations, temporary lifespan and durability and acoustics.

My lecture will focus in detail on our most recent project, the cultural centre 'De Kamers' ('the rooms') in Amersfoort, inaugurated in September 2007.

Being a private initiative the project's aim is the achievement of social cohesion within the 'cultural desert' of a typically Dutch large-scale suburb, currently under construction. The building and its activities are meant to literally grow with its growing surroundings to offer space for various cultural activities and events such as theatre, film, and creative education for adults, children and youth alike.

The design had to be realised for an extremely low budget. It consists of simple wooden cubes ('the rooms') with various dimensions, loosely put together as a casual, almost improvised composition enabling multi-functional use and future changes. Special attention has been paid to the spatial character of each of the rooms, their proportion, materiality and use of daylight.

TIM COSTELLO, CEO, WORLD VISION, AUSTRALIA

ENVIRONMENTALLY SUSTAINABLE CITIES – SOCIALLY SUSTAINABLE URBANITIES

Australia must do more to respond to the threat of climate change - both in cutting our emissions and building more sustainable communities. Yet if climate change has taught us anything, it is that we live in a global village and what happens in one country can profoundly impact on another. Australia cannot act as an island nation, it must act as a global citizen.

As a rich and resourceful nation, Australia must turn its attention to what it can do to help its neighbours who are poor and who are likely to be on the frontline of the calamity wrought by climate change. World Vision is intensely interested in climate change because its impact - rising water levels, disease outbreaks and an increase in number and ferocity of violent storms - will all hit poor countries the hardest.

There are fears climate change will wipe away much of our development achievements over the last half-century. Indeed climate change is becoming the front in the divide between rich and poor, with developing nations spending billions of preparing for its impact while developing countries are hopelessly ill equipped to respond.

Climate change and poverty loom as two of the greatest moral issues of our time. They are issues that can be profoundly impacted by this generation. Failure to act will condemn future generations.

So what can be done and what is the responsibility of a middle power like Australia both at a government level, a business level and for individuals?

Is there a business case to be made to combat poverty and climate change? Can business justify such action to their shareholders? Can they act for the greater good but also conduct 'good business'?

And what of this next generation, Generation Y, who appear more puzzling than any other before it. Why are they demanding action on these 'big' issues and what impact will their actions - as consumers, as employees, as community members and as voters - have on our nation and our globe as we confront these challenges.

After leading World Vision for almost five years, I believe there is a powerful movement for change sweeping across the nation. It is a movement that is propelling Australia to take a leadership role on the issues of climate change and world poverty.

It is a movement that has already in part led to a change of government. I also believe it will be a movement that will change our businesses; it will change our communities.

The way we design our communities says a lot about who we are as a society, our values and our priorities. I believe not only will urban design be dramatically transformed by the demand for greater sustainability but also that many in this field will be at the vanguard of a mass movement for change.

GERARD EVENDEN, SENIOR PARTNER, FOSTER + PARTNERS, UK

FOSTER + PARTNERS: SUSTAINABLE URBAN DEVELOPMENT IN THE MIDDLE EAST

Foster + Partners' architecture is driven by a response to the multitude of environmental issues that affect the built environment. Buildings consume half the energy used in the developed world, while another quarter is used for transport. The practice strives to create environmentally responsible architecture that uses energy efficiently at every stage - from construction through to completion and occupancy. Many of the design elements therefore promise immediate solutions but are also geared for long-term sustainability.



Abstracts | Day three

Speakers

GERARD EVENDEN, Continued

The best architecture comes from a synthesis of all the elements that separately comprise and inform the character of a building: the structure that holds it up; the services that allow it to function; its ecology; the quality of natural light; the symbolism of the form; the relationship of the building to the skyline or the streetscape; the way you move through or around it; and last but not least its ability to lift the spirits. Successful, sustainable architecture addresses all these things and many more.

The Abu Dhabi Plaza at Astana derives its design program by drawing on the historic legacy of Kazakhstan's traditional Bazaars by recreating a bustling marketplace ambience, while also offering a winter garden the size of a football pitch that allows locals the chance to enjoy temperatures of around 10C while it is -30C outside.

The design concept has been driven by the extreme local climate. A rigorous process of climate analysis revealed a solution that would maximise solar gain in the colder months with an innovative thermal hot water collecting system for the south façade.

While buildings affect human wellbeing to a great extent, incorporating sustainable design measures in urban design is imperative for future development. Unconstrained urban sprawl is one of the chief problems facing the world today. The continuing horizontal growth of cities, consumes much more energy than a vertically dense city by forcing people to travel greater distances between home and work, as well as consuming more land than can be accounted for.

This direct correlation between urban density and energy consumption is addressed in the Masdar Project, which, rooted in a carbon neutral ambition, is a car free city. With a maximum distance of 200m to the nearest transport link and amenities, the compact network of streets encourages walking and is complemented by a personalised rapid transport system. The shaded walkways and narrow streets will create a pedestrian-friendly environment in the context of Abu Dhabi's extreme climate.

Foster + Partners has always been guided by a belief that the quality of our surroundings has a direct influence on the quality of our lives and a concern for the physical context and the culture and climate of place. Applying the same priorities to public infrastructure worldwide - in its airports, railway stations, metros, bridges, communication towers, regional plans and city centres - this quest for quality embraces all of the separate elements that inform a design as well as the physical performance of buildings as they evolve to meet the challenges of the future.

Tours

ALL TOURS ARE ON SATURDAY 16 FEBRUARY FROM 2 TO 5PM. ALL ENQUIRIES REGARDING TOURS CAN BE DIRECTED TO THE TOURS DESK IN THE FOYER

CH2 TOUR

The City of Melbourne will host a tour of CH2, conducted by the city's expert urban designers and architects. The tour will showcase the City of Melbourne's Council House 2 building – Australia's first new 6 star greenstar rated office building. The tour will take approximately 1 hour. Your guide will demonstrate the design, implementation and use of the following features:

radiant heating and cooling, night purging, use of recycled materials, lighting, air quality, the roof top garden, the plant room

Full details about the building can be found at www.ch2.com.au

DOCKLANDS TOUR

VicUrban will host a visit to Australia's largest urban renewal project, Melbourne Docklands, a 200ha site that links Melbourne's CBD to the waterfront. The \$10b project is currently one third complete or under construction and features cutting edge design excellence and sustainability initiatives that set new standards.

The tour includes a walk through the site, including a guided tour of one of the many Green Star rated buildings at Docklands, and ends at a popular new cocktail bar with the opportunity to stay for refreshments or set off on the free City Circle tram around the CBD.

CBD WALKING TOUR

Hosted by Hidden Secrets Tours, this tour will take approximately 2.5 hours. Covering key architectural features of Melbourne, this walking tour will take you through features such as Flinders Street, Degraeves Street, The Block Arcade, Bourke Street Mall, China Town and St. Jerome's Lane. Bring your walking shoes.

CBD BIKE TOUR

Hosted by Bicycle Victoria this tour will take approximately 3 hours and will travel through Melbourne and its surrounds. The tour will include key architectural features, planning and urban design features, plus landmarks such as St Kilda Road and the Royal Botanical Gardens. Bikes and helmets will be provided.

YARRA BANK CHARRETTE

Hosted by ARUP, this Urban Design charette will be led by prominent architects leading teams to workshop future scenario's for the Yarra River's Northbank. Malcolm Smith from ARUPs integrated urbanism group in the UK will open discussions.

MELBOURNE BARS / LANEWAY TOUR - Hosted by Hidden Secrets Tours.

EcoEDGE 2

Conference:

February 14-16, 2008

Federation Square

Melbourne

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