



Invitation

CIB, the foremost international organisation for R&D cooperation as regards all aspects of the built environment, is focusing its 14th World Building Congress on the Theme Construction and the Environment.

The Congress will in its concept break new ground. It will be structured around five targeted Symposia, each addressing the Congress Theme. Each Symposium will deliver a concluding statement on R&D and important observations to be discussed at the Congress Plenary Session which will be the culmination of the week. On this basis an Agenda for Sustainable Development in the Built Environment will be produced as a Congress Postscript.

The Congress week will commence with the CERF/CIB International Research Symposium on Engineering and Construction for Sustainable Development in the 21st Century Part II. The Symposium will through its programme set the stage for and present challenges to the Symposia and workshops that are to follow during the week. The agenda of the CERF/CIB Symposium is described in detail on this page.

A programme for the whole CIB World Building Congress will be available in the beginning of 1998 giving detailed information on all the Symposia, the rich social and cultural programme as well as technical visits.

I look forward to receiving your pre-registration soon and meanwhile to welcoming you in person to Gävle, Sweden in June 1998,

Christer Sjöström

President of CIB

Programme (subject to change)

The CIB World Building Congress will start with a Welcoming Reception in the late afternoon/evening on Sunday 7 June.

Monday 8 June

- Congress Opening Ceremony

Official opening by Mr. Jörgen Andersson, Minister of the Interior, on behalf of the Swedish Government

Introductory speech by a noted representative from industry

- CERF/CIB Symposium on Engineering and Construction for Sustainable Development in the 21st Century Part II

CERF AND ITS INDUSTRY ROLE

10:30 - 11:45

Welcome and Introduction

Luther W. Graef, P.E., Chairman Emeritus, Graef, Anhalt, Schloemer & Assoc., Inc., and 1998 President, American Society of Civil Engineers (ASCE)

Development of a Global Research Agenda as an Ongoing Process

Harvey M. Bernstein, President, CERF

1996 International Research Symposium Background and Results

Stephen C. Mitchell, P.E., President and COO, Lester B. Knight & Assoc., Inc., and Chair, Planning Committee, 1996 International Research Symposium

Progress on the Implementation of the 1996 Global Research Agenda and Challenges for CIB World Attendees

John H. Robinson, Jr., Managing Partner, Black & Veatch, and Chair, Planning Committee, 1998 CERF/CIB International Research Symposium

LUNCH/SPEAKER

11.45 - 13:00

Buffet Lunch

13:00 - 13:30

The Effects of Rapidly Developing Computer Technologies on the Design and Construction Industry: A European Perspective, includes a virtual reality demonstration

Bernard Charlès, President, Dassault Systemes

PANEL SESSIONS

13:30 - 14.30

Industry Stakeholders' Panel Discussion

Panellists discuss their corporate vision, future priorities, gaps perceived, possible barriers and industry needs.

Moderator:

John H. Robinson, Jr., Managing Partner, Black & Veatch

and an Expert Panel

14:30 - 15:00

Coffee Break

15:00 - 16:00

CIB Research Leadership Responds to Industry Challenges

Moderator:

John Duncan, Manager, Building Industry Research, Building Research Association New Zealand, and Chair, CIB Programme Committee

and an Expert Panel

16:00 - 16:45

Industry/Research Panels Cross-Fire Discussion on Issues Facing the Industry and Research Communities

Chaired by John H. Robinson, Jr., and John Duncan

CONCLUDING REMARKS

16:45 - 17:15

Major Challenges for the Week and Expectations for Future Collaboration

John H. Robinson, Jr. and John Duncan

TUESDAY - THURSDAY A.M.

9 - 11 June

PARALLEL SYMPOSIA

- "Materials and Technologies for Sustainable Construction" in cooperation with RILEM
- "Indoor Environment and Sustainable Development - Are they Compatible?" in cooperation with ISIAQ and IEA
- "Legal and Procurement Practices - Right for the Environment"
- "Managing Sustainability - Endurance Through Change"

FRIDAY

12 June

- Congress Plenary Session

The Session will feature two speeches of the highest import, followed by the Reports originating from the five Symposia. Based on these contributions and the plenary discussions a select Editorial Group will establish the Agenda on Sustainable Development in the Built Environment.

RILEM - International Union of Testing and Research Laboratories for Materials and Structures

THE FOUR PARALLEL SYMPOSIA

As indicated above these follow the CERF/CIB Symposium and are scheduled for 21/2 days from Tuesday 9 June to the end of the morning on 11 June.

The Symposia Titles in themselves give only an incomplete picture of the contents. So that participants can have a detailed insight into what they can expect from these packed 21/2 days and evaluate what is offered against their own professional requirements, we are listing below the Abstracts that have been submitted to-date.

Clearly not all will eventually result in a full-length paper or a poster and there will certainly be some additions to the lists.

SYMPOSIUM A

"Materials and Technologies for Sustainable Construction" in Cooperation with RILEM

Chairman: Dr. Michael A. Lacasse, NRCC, Canada
(152 abstracts so far)

Titles of Abstracts Received

Life Cycle design and ecomaterials technology of building structural composite materials for sustainable construction

Toshio Fukushima (Building Research Institute, JAPAN)

A Necessary measures to reduce construction waste in Egypt. A model for developing countries
Osama Daoud (Dar al Handasah Consultants, EGYPT)

Quantitative measurement and estimation of driving rain on a building facade
Anneli Högberg (Chalmers University of Technology, SWEDEN)

Hydraulic conductivity of combi-liners in waste deposits
Dionys van Gemert (K.U. Leuven, BELGIUM)

Proposed reduction factor for predicting creep deflection of R.C. Beams
F.I. Fayadh (University of Naser, LIBYA)

Recycled waste clinker X-ray structural analysis
Vladimir Gryzlov (Cherepovets State University, RUSSIA)

Towards a new integrated ISO Standard for sustainable building
Georg Soronis (Swedish Building Standards Institution, SWEDEN)

A RC filler slab with non-autoclaved cellular concrete blocks for sustainable construction
M.P. Jaisingh (Central Building Research Institute, INDIA)

Earth as wall material and pollution
Bilge Isik (Istanbul Technical University, TURKEY)

The product's milieu - Towards an effective information domain to deliver sustainable building
Stephen Emmitt (Nene College of Higher Education, UNITED KINGDOM)

GreenCalc environmental calculations for buildings

Michiel Haas (Dutch Institute of Building Biology and Ecology (NIBE), THE NETHERLANDS)

TWIN environmental classification system for construction products

Michiel Haas (Dutch Institute of Building Biology and Ecology (NIBE), THE NETHERLANDS)

Investigations of energy and mass flow in the existing building stock as a basic precondition for sustainable construction

Harald Kloft (Technische Hochschule Darmstadt, GERMANY)

Recycled aggregates and their influence on recycled aggregate concrete

Bernd Dora (Universität Gesamthochschule Kassel, GERMANY)

Building on contaminated land - Construction quality assurance

Roger Johnson (Parkman Environment, UNITED KINGDOM)

Selecting environmentally and economically balanced building products

Barbara Lippiatt (National Institute of Standards and Technology, USA)

Service life and safety prediction of concrete slabs at filling stations

Sigurdur Gunnarsson (Technische Hochschule Darmstadt, GERMANY)

Ecological building design

Tarja Häkkinen (VTT, FINLAND)

Degradation of Portland cement and Portland ash cement concrete

Sasa Miletic (IMS Institute for Materials Testing, YUGOSLAVIA)

From theory into practice. Sub-arctic ecological building in Östersund

Henrik Olofsson (Midsweden University, SWEDEN)

Bungalow-type solar house, single and multiple

Bertil Erikson (SWEDEN)

Durability evaluation of newly developed fluoropolymer emulsion paints

Kenji Motohashi (Building Research Institute, JAPAN)

Returnable packaging for non-specific building materials

Frans van Gassel (Eindhoven University of Technology, THE NETHERLANDS)

Durability of cracked fibre reinforced concrete exposed to chlorides or freeze-thaw

Ernst Jan de Place Hansen (Technical University of Denmark, DENMARK)

Durability of building materials and components in agricultural environment

Bengt Svennerstedt (Swedish University of Agricultural Sciences, SWEDEN)

Upgrading the use of recycled aggregates

Rod Collins (Building Research Establishment, UNITED KINGDOM)

Changeable internal surfaces for seasonal flexibility

Peter Martin (The Robert Gordon University, SCOTLAND)

The problems of phosphogypsum utilization in Lithuania

Rimvydas Kaminskas (Institute of Architecture and Construction in Lithuania, LITHUANIA)

Repairing of environmental constructions with the high performance concrete SIFCON
Rolf Breitenbücher (Philipp Holzmann AG, GERMANY)

Application of LCA method for urban renewal
Kanji Sakai (Obayashi Corporation, JAPAN)

Life cycle assessment and indoor environmental assessment
Åsa Jönsson (Chalmers University of Technology, SWEDEN)

Integrated life cycle design of materials and structures
Asko Sarja (Technical Research Centre of Finland, FINLAND)

Influence of moisture and alkali on the emission from floor constructions
Helene Wengholt Johnsson (NCC Teknik Göteborg, SWEDEN)

Analytical comparison of buildings in terms of environmental impact criteria
Murat Aygun (Istanbul Technical University, TURKEY)

Environmental relevant product information in the Dutch building industry
Agnes Schuurmans-Stehmann (INTRON, Institute for Material and Environmental Research BV, THE NETHERLANDS)

Structuring of data for LCA of buildings
Thomas Björklund (Chalmers University of Technology, SWEDEN)

Securing sustainable development through value and product supply chain analysis
David Wyatt (University of Brighton, UNITED KINGDOM)

Energy implications of the transportation of building materials
A.J. Miller (University of Brighton, UNITED KINGDOM)

Improving sustainable practice and managing the building replacement cycle through disassembly
David Wyatt (UNITED KINGDOM)

Performance based specifications for energy efficient thermal insulation systems for retrofitting existing residential building in Istanbul
Ertan Özkan (Istanbul Technical University, TURKEY)

Sustainable ecologically technology in building construction
Raul Ernesto Astori (Universidad Nacional del Nordeste - U.N.N.E., ARGENTINA)

Ecological water reservoir
Alina Angela Hess (Universidad Nacional del Nordeste - U.N.N.E., ARGENTINA)

Use of land in ecological dwelling construction
Delia Klees (Universidad Nacional del Nordeste - U.N.N.E., ARGENTINA)

Evaluation of transport energy implications for the recycling of construction and demolition waste
A.J. Miller (University of Brighton, UNITED KINGDOM)

Ultrasonic bridge inspection using 3D-SAFT
M. Krause (Federal Institute for Materials Research and Testing, GERMANY)

A systemic approach to address sustainable construction issues
George Seaden (Institute for National Research Council of Canada, CANADA)

Action of gypsum on recycled aggregates concrete
Jean Louis Gallias (IUP Génie Civil, FRANCE)

Environmental declaration of building materials and products
Markku Salmi (The Building Information Institute, FINLAND)

Analysis of the performance of concrete components made with recycled aggregates
Paola Dessy (CNR ICITE, ITALY)

Life cycle impact of floor coverings - Contribution of the usage phase
Jacob Paulsen (Royal Institute of Technology, SWEDEN)

Autoclaved aerated concrete for construction in hot regions
Hayfaa Almudhaf (Kuwait Institute for Scientific Research, KUWAIT)

Assessment of the environmental compatibility of concrete admixtures
Urs Mäder (SIKA AG, SWITZERLAND)

Development of an improved remote moisture sensor
Dai Guangya (University of Luton, UNITED KINGDOM)

Environmentally-sound building technologies
Peter Schmid (Eindhoven University of Technology, THE NETHERLANDS)

Insulating materials with low environmental impact: A comparative study of fine mineral effects on physical properties of wood composite
Michèle Quéneudec (Université de Picardie Jules Verne, FRANCE)

Clayey concrete lightened by wood aggregates: the influence of temperature and moisture on thermal conductivity
Michèle Quéneudec (Université de Picardie Jules Verne, FRANCE)

A lightening process of clay-cement pastes by recycled ox blood
Michèle Quéneudec (Université de Picardie Jules Verne, FRANCE)

A computer based method to integrate the environmental aspects of the life cycle of a building in the planning process
Johannes Kreissig (University of Stuttgart, GERMANY)

Energy Scheming 3.0: Providing solutions towards energy-efficient design
G.Z. Brown (University of Oregon, USA)

On-grade insulated panel floor system
G.Z. Brown (University of Oregon, USA)

Service life prediction of flat roofs with prefabricated polymer modified bituminous membranes
Sergio Croce (Politecnico di Milano, ITALY)

Moisture migration in building walls: Numerical modelling of transient water movement during a rainfall
A. Piovani (Politecnico di Milano, ITALY)

Data collection for environmental assessment of building materials by architects and specifiers
Sue Hobbs (Building Research Establishment, UNITED KINGDOM)

Experiences from life cycle assessments on steel and concrete bridges
Joakim Widman (Swedish Institute of Steel Construction, SWEDEN)

Reach sustainability with light-gauge steel framing systems
Joakim Widman (Swedish Institute of Steel Construction, SWEDEN)

Quantitative evaluation of the effect of sulphur etc.
Dagmar Knotková (SVÚOM Praha, CZECH REPUBLIC)

Durability of polymeric pipes in contact with domestic products
José Luis Barroso de Aguiar (University of Minho, PORTUGAL)

LCA of construction materials and buildings in Germany
Julian Kümmel (University of Stuttgart, GERMANY)

The Construction industry and sustainable housing for the next 21st Century: The East Southern Africa case
Amon Raphael Makenya (KTH, Royal Institut of Technology, SWEDEN)

Service Life - Theory and practice
William Porteous (Victoria University of Wellington, NEW ZEALAND)

Performance requirements of building products derived from construction and demolition waste
K. Sagoe-Crentsil (CSIRO Building, Construction and Engineering, AUSTRALIA)

Properties of concrete incorporating Fly ash and Recycled demolition waste
K. Sagoe-Crentsil (CSIRO Building, Construction and Engineering, AUSTRALIA)

What do we mean by sustainable construction?
Sandy Halliday (GAIA Research, SCOTLAND)

Solar airconditioning in the UK
Sandy Halliday (GAIA Research, SCOTLAND)

Visualisation of 3D city models on the Internet
Jie Shan (University College Gävle/Sandviken, SWEDEN)

Functional analysis as a method of designing new building components within a policy of a sustainable construction
P.N. Maggi (Politecnico di Milano, ITALY)

Environmental evaluation of exterior clay brick masonry
Silvia Piardi (Politecnico di Milano, ITALY)

Recoverability of building elements in recovery intervention
Emma Dal Zio (University of Padua, ITALY)

POE-based composites for flooring tiles
John Campanelli (Concordia University, CANADA)

Implementation of the use of recycled aggregates in concrete construction and road construction - Dutch experiences with market development; a review of pitfalls and successes
Charles F. Hendriks (Technical University of Delft, THE NETHERLANDS)

Performance of concrete with recycled aggregates
Hans S. Pietersen (Technical University of Delft, THE NETHERLANDS)

"Green concrete" is as simple as ABC

Larry Muszynski (University of Florida, USA)

Methodology and experimental programme to evaluate building components and service life
B. Daniotti (Politecnico di Milano, ITALY)

Technological complex for utilization of High-Calcium Ash and slag from Abakan Thermal Power Plant
Stanislav Pavlenko (Siberian State Academy of Mining and Metallurgy, RUSSIA)

The environmental impact of panelized single family housing in the United States
G.Z. Brown (University of Oregon, USA)

Complex of ecologically safe synergetics technologies for waste treatment in metallurgy
V. Tsymbal (Siberian State Academy of Mining and Metallurgy, RUSSIA)

A basic design on long lasting reinforced concrete buildings
Norimoto Kashino (Building Research Institute, JAPAN)

Service life design
Göran Hed (Royal Institute of Technology, SWEDEN)

System applied in Poland for assessment of materials and technologies for sustainable construction
Stanislaw Wierzbicki (Building Research Institute - ITB, POLAND)

Ecological, Low Energy and Low Cost Housing possibilities for Latvia
Videvud Lapsa (Riga Technical University, LATVIA)

Establishing design guidelines for the use of Recycled Plastic Lumber (RPL) in structures
Prabhat Krishnaswamy (Battelle, USA)

Information technologies for the design life of buildings
Stewart Burn (CSIRO, AUSTRALIA)

Energy related environmental impact of buildings
Peter Russell (Canada Mortgage and Housing Corporation, CANADA)

Weather-induced degradation of PVC profiles in Indian climate
B. Singh (Central Building Research Institute, INDIA)

Information system for maintenance of 2500 buildings: A case history
W. Charles Greer (Law Engineering & Environmental Services, Inc., USA)

Recycling excavated cohesive soil as back-filling materials with liquefied stabilized soil method
Jotaro Iwabuchi (Central Research Institute for Construction Technology, JAPAN)

Building Physics - No way around it
Gudni Johannesson (Royal Institute of Technology, SWEDEN)

Waste management in large residential development: A case study
O.D. Wilson (Queensland University of Technology, AUSTRALIA)

Let words have their say - Experimental and theoretical considerations on the qualitative assessment of construction products' environmental quality
Jean Francois Le Teno (Centre Scientifique et Technique du Bâtiment (CSTB), FRANCE)

An example of cooperation with Industry for developing a new component of envelope, on the basis of performance specifications

Raphaël Slama (Centre Scientifique et Technique du Bâtiment (C.S.T.B.), FRANCE)

Durability and reliability, alternative approaches to assessment of component performance over time
Edwin Bartlett (University of the West of England, UNITED KINGDOM)

New innovative natural materials for construction of living and rest rooms
Grigory Fainburg (Perm State Technical University, RUSSIA)

Basic approach methodologies for the management, the reuse and the design of residential buildings in mountain environments. Case study
Antonio Frattari (University of Trento, ITALY)

The flow of materials in the Swedish construction industry
Nikolaj Tolstoy (AB Jacobson & Widmark, SWEDEN)

The life cycle simulation method EQUER applied to building components
Bruno Peuportier (Ecole des Mines de Paris, FRANCE)

The interrelationship between the performance and the service life of building products
Erik Brandt (Danish Building Research Institute, DENMARK)

Release and flows of metals from building materials due to corrosion and degradation
Dan Persson (Swedish Corrosion Institute, SWEDEN)

Systems and methods for assessing the conservation state for the outer wooden parts of cultural buildings
- Assessment protocol
Jürgen Veit (Deutsches Zentrum für Handwerk und Denkmalpflege, GERMANY)

Quality on in-put data in Life Cycle Methods
Arne Nesje (SINTEF, NORWAY)

Long-time performance of plastered external walls made from autoclaved aerated concrete
Kjell Nygren (Yxhult AB, SWEDEN)

Prediction of durability for performance-based codes
Adrian Bennet (Building Research Association of New Zealand, NEW ZEALAND)

Prediction of metal corrosion rates using environmental categories
Christopher D. Kane (Building Research Association of New Zealand, NEW ZEALAND)

Development and validation of the Wetcore method for continuous monitoring of the surface time of wetnes and the corresponding moisture content in wood
Bengt Eriksson (Royal Institute of Technology, SWEDEN)

Wood Assess - Mapping environmental risk factors on the macro, meso and micro scale
Jan F. Henriksen (Norwegian Institute for Air Research, NORWAY)

Energy use during the life-cycle for multi-family houses
Karin Adalberth (University of Lund, SWEDEN)

Management information system for programming the maintenance of the existing building
M. Rita Pinto (University of Naples, ITALY)

Environmental assessment method adapted for buildings
Martin Erlandsson (Ragn-Sells Miljökonsult AB, SWEDEN)

Wood-Assess - Systems and methods for assessing the conservation state of wooden cultural buildings
Svein Haagenrud (Norwegian Institute for Air Research, NORWAY)

Environmental problems of concretes with technological waste
B.V. Gusev (The Research, Design and Technological Institute of Concrete and Reinforced Concrete, RUSSIA)

Concrete helps to fight pollution
B.A. Krylov (The Research, Design and Technological Institute of Concrete and Reinforced Concrete, RUSSIA)

Experimental program to evaluate building components service life
P.N. Maggi (Politecnico di Milano, ITALY)

Excellent performance for courtyard within buildings
Chen Qigao (Chongqing Jianzhu University, CHINA)

Development of the lattice model and its application for the shear failure mechanism
Fawzy Mohamed El-Behairy (Nagoya University, JAPAN)

The durability of elastomeric building sealants - results from a five year programme
Till Boettger (Universitaet Lipzig, GERMANY)

Design for durability: The key issue to building sustainability
Angelo Lucchini (Politecnico di Torino, ITALY)

Systematic vivendi for design for durability
Angelo Lucchini (Politecnico di Torino, ITALY)

Design for durability: Case studies in various countries
Angelo Lucchini (Politecnico di Torino, ITALY)

Recycling of concrete in Sweden
Christer Molin (BARAB, SWEDEN)

Towards a quantitative approach to durability design
Z. Lounis (National Research Council Canada, CANADA)

Improving building operators contribution towards sustainability
Angelo Lucchini (Politecnico di Torino, ITALY)

Increase atmospheric and corrosion resistance of a concrete by plasma spraying of zink
Akulova Marina Vladimirovna (RUSSIA)

Consequences for buildings of climatic variability and climate change
Tim Yates (Building Research Establishment, UNITED KINGDOM)

More sustainable construction via building systems based on prestressed concrete elements
Frank De Troyer (Katholieke Universiteit Leuven, BELGIUM)

Precast concrete box units - resource management and recycling - A case study
Bengt Hansson (Lund University, SWEDEN)

Use of recycled materials in housing production
Bengt Hansson (Lund University, SWEDEN)

Service life of buildings

Anne Merete Olsøy (Norwegian University of Science and Technology, NORWAY)

Recycling wastes as building materials an internet database

Vanderley M. John (University of São Paulo, BRAZIL)

Effect of latex paint compositions on the mechanism of water transportation

Kai Uemoto (Escola Politecnica da Universidade de São Paulo, BRAZIL)

A causal path model to evaluate the impact of the frame material upon the environment

Sam Allwinkle (Napier University, SCOTLAND)

The influence of hardened mortar and waste ceramic materials finely grounded, on the properties of the new mortars

Mony Levy (Escola Politécnica da Universidade São Paulo, BRAZIL)

The influence of the use of dwellings on the resource-efficiency of housing

Clemens Deilmann (Institute of Ecological Spatial Development, GERMANY)

Methodology to evaluate used foundry sand as concrete aggregate

C. Sbrighi Neto (Instuto de Pesquisas Technolgicas do Estado de São Paulo, BRAZIL)

Efficient hydrophobation of concrete with novel silicone products

Wolfgang Keller (Wacker-Chemie Gmbh, GERMANY)

Environmental impact of structural building materials

Mats Öberg (Cementa AB, SWEDEN)

Presentation of Eco-Quantum, the LCA based computer tool for buildings

Jaap Kortman (IVAM Environmental Research, THE NETHERLANDS)

Studies of properties in plastered autoclaved aerated concrete

Gabor Kalmar (The Royal Institute of Technology, SWEDEN)

Methods for moisture measurements in AAC walls

Kjell Nygren (Yxhult AB, SWEDEN)

Studies of hydrophobed plastered autoclaved aerated concrete

Hulya Kus (The Royal Institute of Technology, SWEDEN)

Studies of the micro structure in plastered autoclaved aerated concrete

Thomas Carlsson (The Royal Institute of Technology, SWEDEN)

A theoretical model for moisture flow in a porous material

Peter Roots (The University of Gävle-Sandviken, SWEDEN)

Symposium B

"Indoor Environment and Sustainable Development - Are they Compatible?" in cooperation with ISIAQ and IEA

Chairman: Gaute Flatheim, Flatheim A/S, Norway
(63 abstracts so far)

Titles of Abstracts Received

Building Materials' Source Control

Anne Aikivuori (VTT Building Technology, FINLAND)

Moisture control in buildings - How can varying outdoor climate be allowed for when designing the structure?

Per Ingvar Sandberg (Swedish National Testing and Research Institute, SWEDEN)

Healthy and environmentally compatible building materials; report on a German project

Erhard Mayer (Fraunhofer-Institut für Bauphysik, GERMANY)

Assessment of energy conservation measures suitable for retrofitting residential buildings in Kuwait

Fatouh Al-Ragom (Research Associates at Kuwait Institute for Scientific Research, KUWAIT)

Energy and IAQ assessment by microanalytic simulation

Tommy Waller (Royal Institute of Technology, SWEDEN)

The impact of VOC emissions on the air quality within a new energy efficient office building

Chuck Yu (Building Research Establishment, UNITED KINGDOM)

Cost efficiency and financial feasibility of retrofitting with heat insulation of existing buildings in Istanbul

Nil Sahal (Istanbul Teknik Üniversitesi, TURKEY)

Natural night ventilation and thermal inertia

Omar Douzane (I.U.T Génie Civil, FRANCE)

The effects of mechanical ventilation on mite numbers and allergen levels

Gary Raw (Building Research Establishment, UNITED KINGDOM)

Humidification and health in commercial buildings

Gary Raw (Building Research Establishment, UNITED KINGDOM)

Solar thermal storage with phase change materials in domestic buildings

Kenneth Ip (University of Brighton, UNITED KINGDOM)

Effects on water vapor diffusion on moisture performance of retrofitted exterior walls of multi storey residential building in Istanbul

M. Cem Altun (Istanbul Technical University, TURKEY)

The effects of fenestration characteristics on the thermal performance of retrofitted residential buildings in Istanbul

Aslihan Tavil (Istanbul Technical University, TURKEY)

Enhanced fabric thermal storage

Raymond Ogden (Oxford Brookes University, UNITED KINGDOM)

Open suspended ceilings to allow access to thermal mass

Christopher Kendrick (Oxford Brookes University, UNITED KINGDOM)

Indoor air quality - An essential, non-negotiable and achievable sustainable development component

Carl Magnell (USA)

Unity indoor climate sustainability

Peter Schmid (Eindhoven University of Technology, THE NETHERLANDS)

Toward a more ascetic way of living
G rard Blachere (Auxirbat, FRANCE)

Classification of finishing materials
Kari Vikstr m (The Building Information Institute, FINLAND)

Transparent double envelope integrated with HVAC plant for non domestic buildings: performance and economic evaluation
Sergio Croce (Politecnico di Milano, ITALY)

Indoor environment, personal-related factors and the well-being of residents
Hans H gberg (Royal Institute of Technology, SWEDEN)

A case-referent study of indoor climate complaints in Swedish single family houses
Hans H gberg (Royal Institute of Technology, SWEDEN)

Numerical and experimental analysis of the thermal performance of well-insulated windows
Ulf Larsson (University College of G vle/Sandviken, SWEDEN)

On the desirable optimum in a sustainable living space
Alina Cobzaru (INCERC National Building Research Institute, ROMANIA)

Development of new thermotropic materials for window shading
H. Goedeke (Fraunhofer Institute, GERMANY)

Assessment of a hybride heating system with ventilated concrete ceiling
Norbert Koenig (Fraunhofer Institute, GERMANY)

Use of spectral methods in airflow studies in buildings
Krystyna Pietrzyk (Chalmers University of Technology, SWEDEN)

Expert system for assessing energy and environmental performance of indoor ambient
Giorgio Beccali (Universita di Palermaf, ITALY)

Learn from the building traditions - incorporate passive techniques and the building mass in the control policy
Engelbrekt Isf lt (Royal Institute of Technology, SWEDEN)

Value of indoor air quality to productivity
Gaute Flatheim (Flatheim A/S, NORWAY)

Sustainable development also means healthy building
Alain Mauguard (Centre Scientifique et Technique du B timent, FRANCE)

Evaluation of thermal comfort in Mediterranean climate in order to handle variable thermal loads
S. Croce (Politecnico di Milano, ITALY)

Glazing analysis in a crystal palace
J. Gallostra (Universitat Polit cnica de Catalunya, SPAIN)

Healthy indoor environment as condition of real sustainable development
Irina Korukina (Perm State Technical University, RUSSIA)

Conception of vital air and construction of vital air rooms
Grigory Fainburg (Perm State Technical University, RUSSIA)

Healthy ionized air and indoor environment - Are they compatible?

Konstantin Chorny (Perm State Technical University, RUSSIA)

Guidelines for indoor air quality in schools

Inger Sävenstrand Rådö (National Institute of Public Health, SWEDEN)

A review of tracer gas techniques for determination of air flow rates in buildings

Hans Stymne (Royal Institute of Technology, SWEDEN)

Adsorption and desorption of air contaminants on indoor surfaces

Peter Hansson (Royal Institute of Technology, SWEDEN)

Determination of indoor climate patterns in apartments

Wolfgang Bischof (University of Jena, GERMANY)

Lighting and productivity

Luciano Di Fraia (University of Naples 'Federico II', ITALY)

Nasal congestion and inflammatory markers in nasal lavage in school personnel - the significance of air exchange rate and type of ventilation system in schools

Robert Wålinder (University Hospital Uppsala, SWEDEN)

Egg tempera or water based paint? An epidemiological study

Dan Norbäck (University Hospital, SWEDEN)

Clinical signs and symptoms in hospitals with different building designs

Gunilla Wieslander (University Hospital, SWEDEN)

Subjective indoor air quality in different geriatric hospital buildings

Klas Nordström (Länshälsan, SWEDEN)

Ventilation at the source

Bengt Wessén (Pegasus Lab AB, SWEDEN)

New function for indoor air quality evaluation

Chen Qigao (Chongqing Jianzhu University, CHINA)

Identification of building materials with high probability of radon emission. Techniques and methods of building protection

Francesco Patania (Applied Physics Institute-Engineering Faculty of Catania, ITALY)

Contractor selection - Evaluation of bids

Anna Seeger Meriaux (Lund University, SWEDEN)

Health effects of installing a new ventilation system in school buildings

Greta Smedje (University Hospital Uppsala, SWEDEN)

ISIAQ Guideline Moisture control in cold climates

Tom Follin (BARAB, SWEDEN)

Ventilation at the source

Gunnar Eckerbom (Kommunhälsan, SWEDEN)

Three green buildings from Venezuela: proposals for climate sensitive design

Francisco Mustieles (Universidad del Zulia, VENEZUELA)

MBW: A matricial bioclimatic window
Pablo M. La Roche (Universidad del Zulia, VENEZUELA)

Projecting energy saving from daylighting in partitioned open plan spaces
Gon Kim (Andong National University, KOREA)

The contained dwelling
Maria V. Machado (Universidad del Zulia, VENEZUELA)

A graphic method to evaluate shading effectiveness in windows and facades with solar protection
Carlos E. Quiros Lacau (La Universidad del Zulia, VENEZUELA)

Moisture, mould and health in apartment homes
Aino Nevalainen (National Public Health Institute, FINLAND)

Healthy building design
Roger Corner (Environmental and Health Protection Administration in Stockholm, SWEDEN)

Classification of indoor climate, construction, and finishing materials
Olli Seppänen (Helsinki University of Technology, FINLAND)

Guidelines for indoor climate investigation in residential buildings
Olli Seppänen (Helsinki University of Technology, FINLAND)

Symposium C

"Legal and Procurement Practices - Right for the Environment"

Chairman: Chris Pollington, Deputy Secretary General, CIB
(40 abstracts so far)

Titles of Abstracts Received

TG15 Monograph for China and India
Deepak Bajaj (University of Technology, AUSTRALIA)

Risk management for joint ventures in the Chinese procurement practice
Li Yin Shen (The Hong Kong Polytechnic University, HONGKONG)

Construction conflict: Management and resolution
Mohammed Dulaimi (University of the West of England, UNITED KINGDOM)

Introduction of a statutory adjudication scheme in the UK
David Miles (CEDR, UNITED KINGDOM)

Dispute Resolution in New Zealand
John Boon (UNITEC Institute of Technology, NEW ZEALAND)

Collaborative performance-based purchasing for sustainable innovation
Hans Westling (Promandat AB, SWEDEN)

Understandings of environmentally conscious procurement arrangements in culturally diverse circumstances
Mark Hall (Liverpool John Moores University, UNITED KINGDOM)

Developing a form of procurement for sustainable development
David Wyatt (University of Brighton, UNITED KINGDOM)

Contract provisions for effective dispute resolution
Mark Entwistle (Academy of Construction Adjudicators, UNITED KINGDOM)

Procurement sustainable building practice
Peter Schmid (Eindhoven University of Technology, THE NETHERLANDS)

Planning techniques and environmental issues in procurement
Angelo Ciribini (DISET - Politecnico di Torino, ITALY)

The direction of policies and systems for the development of sustainable human settlements in Korea
Kyu-In Lee (Housing Research Institute, KOREA)

Procurement and sustainability in construction industry: Tendering for durable relationships with process and projects
Wilco Tjihuis (University of Twente, THE NETHERLANDS)

Environmental and economic evaluation in land planning laws: The case of Tuscany
Vincenzo Bentivegna (Università degli Studi di Firenze, ITALY)

Meditation for arbitration: The Queensland building tribunal
Martin Skitmore (Queensland University of Technology, AUSTRALIA)

Contractual systems for construction refurbishment projects
Innocent G. Okorji (South Bank University, UNITED KINGDOM)

Aligning the world's procurement methods towards innovative solutions to long term environmental and economic needs
John B. Miller (Massachusetts Institute of Technology, USA)

Design and management safety regulations
Tony Baxendale (University of the West of England, UNITED KINGDOM)

Procurement, information and communication
Colin Davidson (Université de Montréal, CANADA)

The role of procurement practices in occupational health and safety and the environment
John Smallwood (University of Port Elizabeth, SOUTH AFRICA)

Construction procurement and the cultural dimension - dealing with difference to achieve sustainable development
Alan Gilham (Building Research Establishment, UNITED KINGDOM)

Health and safety and the environment as project parameters
John Smallwood (University of Port Elizabeth, SOUTH AFRICA)

Project performance and delays: A front-end approach
Tarek A. Abdel Meguid (Université de Montréal, CANADA)

Attitudes to UK construction procurement systems for refurbishment work
Charles O. Egbu (University College London, ENGLAND, UK)

The influence of clients' characteristics on choice of procurement methods

Maizon Hashim (Universiti Teknologi Malaysia, MALAYSIA)

An overview of the major impacts of the new Chilean environmental normative on construction procurement

Alfredo Serpell (Pontificia Universidad Catolica de Chile, CHILE)

Environmental risk assessment in private finance initiative projects

Akintola Akintoye (Glasgow Caledonian University, UNITED KINGDOM)

Implications of the introduction of adjudication in United Kingdom construction contracts - the contractor's perspective

Melvyn A. Lees (University of Salford, UNITED KINGDOM)

Environmental awareness within the construction industry: The role of procurement

Stephen Ogunlana (Asian Institute of Technology, THAILAND)

Environmental concerns vs. commercial reality - Who really pays for construction waste?

Stephen Emmit (Nene College of Higher Education, UNITED KINGDOM)

Adjudication in the UK construction industry

Paul Newman (Barrister, UNITED KINGDOM)

Procurement methods and contractual provisions for sustainability in construction

George Ofori (National University of Singapore, REPUBLIC OF SINGAPORE)

A systematic approach for modelling the causes and effects of waste in the construction procurement process

Peter Love (Deakin University, ENGLAND, UK)

Evaluation of bids at procurement of housing with low rent - A case study

Bengt Hansson (Lund University, SWEDEN)

Procurement in consideration of emissions, electric and magnetic fields and radiation - A case study

Bengt Hansson (Lund University, SWEDEN)

Matching contract procurement systems to particular construction environments in developing countries

Winston Suite (The University of the West Indies, TRINIDAD, W.I.)

Model for the preparation of environmental impact studies as used on the motorway bypassing the city of Karlovac

Petar Dukan (Civil Engineering Institute of Croatia, CROATIA)

Building procurement and organisational learning - Missed opportunities

Derek H.T. Walker (Royal Melbourne Institute of Technology, AUSTRALIA)

Identification of environmental risks and their impact at an early stage in construction procurement

Ron Craig (Loughborough University, ENGLAND)

Towards the implementation of procurement strategies for sustainable environment

P. McDermott (University of Salford, UNITED KINGDOM)

Moderators on project performance

Anita Lui (University of Salford, UNITED KINGDOM)

Construction projects: the culture of joint venturing

Richard Fellows (University of Bath, UNITED KINGDOM)

The role of building design education in the achievement of sustainable construction
A.D. Hall (Liverpool John Moores University, UNITED KINGDOM)

Symposium D

"Managing Sustainability - Endurance Through Change"

Chairman: Prof. Peter Brandon, University of Salford, United Kingdom
(90 abstracts so far)

Titles of Abstracts Received

Environmental concerns for construction growth in the Gaza Strip
Adnan Enshassi (Islamis University of Gaza, ISRAEL)

Modelling sustainable community development in Edinburgh's South East Wedge
Mark Deakin (Napier University, SCOTLAND)

Intelligent environmental modelling of building performance for sustainable design
Ken Beattie (Dublin Institute of Technology, IRELAND)

An environmental perspective on UK construction materials
Leslie Parrott (British Cement Association, UNITED KINGDOM)

Challenges & opportunities in UK housing into the next century
Paul Evans (Building Research Establishment, ENGLAND)

Fragile networks and robust gates - A view on managing for sustainability
Stephen Emmit (Nene College of Higher Education, UNITED KINGDOM)

Project management - the agent of sustainable production?
David Baldry (University of Salford, UNITED KINGDOM)

An energy barometer for monitoring end-use building energy
Karl-Erik Westergren (University College of Gävle-Sandviken, SWEDEN)

Open building: Balancing stability and change
Stephen Kendall (Marymount University, USA)

Managing temporary employees in a network organisation
John Boon (UNITEC Institute of Technology, NEW ZEALAND)

A regionally adapted system for assessing building performance
Nils Larsson (Canmet Energy Technology Centre, CANADA)

Construction projects cash flow modelling in economy in transition
Mladen Radujkovic (CROATIA)

Application of the discounting principle in sustainable community development: Edinburgh's South East Wedge
A. Antwi (Napier University, UNITED KINGDOM)

Enforcing energy efficiency measures in the built environment using internet technology

Anders Lindfors (Royal Institute of Technology, SWEDEN)

Open industrialisation: State of the art and future perspectives
Asko Sarja (Technical Research Centre of Finland, FINLAND)

Managing construction projects within emerging information-driven business environments
Antony Thorpe (Loughborough University, UNITED KINGDOM)

Interests, interactions and implementation of sustainable development in the Netherlands
George K.I. Ang (Government Building Agency, THE NETHERLANDS)

Collecting systems for waste return in the building industry: combining political, logistical, economical and environmental aspects
Agnes Schuurmans-Stehmann (Intron, Institute for Material and Environmental Research BV, THE NETHERLANDS)

Plan, fan or abandon: Evolving patterns of infrastructure & urbanization
John Walewski (National Research Council, USA)

How to make sustainability an operational concept in decision making
Patrizia Lombardi (University of Architecture of Venice, ITALY)

Sustainable criteria for residential houses
Lars Myhre (Norwegian Building Research Institute, NORWAY)

Productivity and quality in renewal of buildings
Niels Haldor Bertelsen (Danish Building Research Institute, DENMARK)

Environmental assessment and review of buildings, building operation and urban areas
Alan Yates (Building Research Establishment, ENGLAND)

Managing maintenance in transition economies - the Zagreb case
Mariza Katavic (University of Zagreb, CROATIA)

Sustainable building organisation
Peter Schmid (Eindhoven University of Technology, THE NETHERLANDS)

Tentative application of the ECE Compendium of Model
Gérard Blachere (Auxirbat, FRANCE)

A long-range model for the building sector production to assess the opportunities of moving towards a more sustainable development
Jean Baillon (Auxirbat, FRANCE)

Scenarios and visions as tools for enduring changes for sustainability in society, organisations and the built environment
Göran Molin (Molin Framtidsstudier, SWEDEN)

Environmental assessment of buildings combining the LCA and criteria methodologies
Mauritz Glaumann (Royal Institute of Technology, SWEDEN)

Designing for sustainability: Ideal and practicable increments of change
Raymond Cole (University of British Columbia, CANADA)

Sustainable construction strategies from the technological/biological perspective
Alina Cobzaru (INCERC National Building Research Institute, ROMANIA)

Validation of multilateral building product design with QFD-methods
K. Sedlbauer (Fraunhofer Institute, GERMANY)

Evaluating the fitness of low-income user housing to environmental conditions
Beatriz Cecilia Amarilla (LINTA/CIC, ARGENTINA)

Sustainability through integration
Peter Barrett (University of Salford, UNITED KINGDOM)

Environmental management in Denmark
Ib Steen Olsen (National Building and Housing Agency, DENMARK)

Life cycle economy
Ib Steen Olsen (National Building and Housing Agency, DENMARK)

Striving for harmony between contemporary construction and values of natural and cultural heritage in protected areas
Vladas Stauskas (Vytautas Magnus University, LITHUANIA)

The persistence of energy savings of the UK's Energy Efficiency Best Practice Programme for buildings
Clodagh Mc Grath (Building Research Establishment, UNITED KINGDOM)

Limits to sustainable development
Charles Kibert (University of Florida, USA)

Planning choice and verification of environmental compatibility: two study cases
Giulio Mondini (Politecnico di Torino, ITALY)

Urban environment quality implementation through sustainable advanced technology
Marco Sala (University of Architecture of Florence, ITALY)

A simulation of the environment in Salford Quays
Andy Hamilton (Salford University, UNITED KINGDOM)

Towards a culture of best practice in Swedish industry
Anders Nilsson (Royal Institute of Technology, SWEDEN)

Comparative analysis of firms in the Swedish and UK construction markets in their ability to implement sustainable development policies
Thomas Westin (Royal Institute of Technology, SWEDEN)

Eco-value modelling in property asset management
Chris Fortune (Liverpool John Moores University, UNITED KINGDOM)

Appraised model about construction project influenced by environment in Reservoir Region of Three Gorges China
Yinjion Yang (Wuhan University of Hydraulic and Electric Eng., CHINA)

Tools and procedures for strategic management of sustainable urban design
Pier Angiolo Cetica (Università degli Studi di Firenze, ITALY)

The clean building concept - Quality control and management
Lars G. Wessel Johnsen (National Institute of Technology, NORWAY)

Transport environmental implications of buildings

Nigel Howard (Davis Langdon & Everest, UNITED KINGDOM)

Sustainability & regional planning: Barcelona's area case study
Miquel Casals (Universitat Politecnica de Catalunya, SPAIN)

Difficulties into application of the sustainable concepts in Spain
Miquel Casals (Universitat Politecnica de Catalunya, SPAIN)

The GREEN dimensions of the next generation plant/facility design solutions
Neculai Tutos (Dassault Systemes of America Corp., USA)

A sustainable construction process
Jan Borgbrant (Luleå University of Technology, SWEDEN)

Environmental costs
Marcel Dewever (The Government Building Agency, THE NETHERLANDS)

A multidisciplinary and plural knowledge base for a sustainable management of public housing
Emilia Conte (Polytechnic of Bari, ITALY)

A 3D CAD model of embodied energy for assessment of sustainable construction
Selwyn Tucker (CSIRO, AUSTRALIA)

Reforming the policy process for sustainable development. The case of housing and human settlements
Satya Brink (Human Resources Development, CANADA)

How to introduce recycling in societies with existing infrastructure
Jan Söderberg (Lund University, SWEDEN)

Process response modelling as an alternative approach to environmental impact assessment
Sue Buzer (Queensland University of Technology, AUSTRALIA)

Towards environmental project management
Clive Briffet (National University of Singapore, SINGAPORE)

Sustainable water management: Multi-purpose utilisation and economic perspectives
Giuseppe Stellin (University of Padova, ITALY)

24 criteria for designing and constructing buildings on sustainable development principles
Rober Angioletti (Agency for Environment and Energy Management, FRANCE)

Strategies for change - understanding sustainable development from a construction industry perspective
Alan Gilham (Building Research Establishment, UNITED KINGDOM)

The need for the implementation of quality management systems (QMS) in South African construction
John Smallwood (University of Port Elizabeth, SOUTH AFRICA)

Management of construction and demolition waste streams
Mats Tarring (Demex Consulting Engineers A/S, DENMARK)

Sustainable development and future of construction
Luc Bourdeau (Centre Scientifique et Technique du Bâtiment, FRANCE)

Economical and ecological sustainability: An analogous framework of indirect linkages?
Graham Trelaor (Deakin University, AUSTRALIA)

Open building implementation; Matching demand and supply for flexibility
Rob P. Geraedts (Delft University of Technology, THE NETHERLANDS)

A center for sustainable housing technologies in Brazil
Miguel Aloysio Sattler (Universidade Federal do Rio Grande do Sul, BRAZIL)

A study of the public perception of sustainable construction
John Hornibrook (Queensland University of Technology, AUSTRALIA)

A data base for standards in the building sector structured on a classification system aimed at a sustainable building process
P. Boltri (Politecnico di Milano, ITALY)

Design for adaptability
Siri Blakstad (Norwegian University of Science and Technology, NORWAY)

New classification system for easy identification of the content and use of standards by standards users
P. Boltri (Politecnico di Milano, ITALY)

Promoting BEQUEST: Building Environmental Quality Evaluation for Sustainability through Time
Andy Hamilton (Salford University, UNITED KINGDOM)

Agenda for future research in sustainable construction
Thomas E. Uher (The University of New South Wales, AUSTRALIA)

Managing sustainability - The key issues
Peter S. Brandon (University of Salford, ENGLAND)

Horizon 2020 - Design-build
Constantine J. Katsanis (Université de Montréal, CANADA)

Changing consumption patterns to achieve sustainable development: Role of construction
George Ofori (National University of Singapore, REPUBLIC OF SINGAPORE)

Sustainable building - a Swedish national research program
Anne-Marie Wilhelmsen (Chalmers University of Technology, SWEDEN)

Sustainable construction in Finland: Approach and best practices
Pekka Huovila (VTT Building Technology, FINLAND)

The role of education in sustainability in construction for the Caribbean
T.M. Lewis (The University of the West Indies, TRINIDAD & TOBAGO)

Approaches to sustainable construction in the Caribbean
T.M. Lewis (The University of the West Indies, TRINIDAD & TOBAGO)

Managing sustainable construction in the Caribbean
T.M. Lewis (The University of the West Indies, TRINIDAD & TOBAGO)

A DSS for fire safety engineering in renovation projects
Roberto Pietroforte (Worcester Polytechnic Institute, USA)

Life-cycle-analyses for building products - concentration on the "consumption" phase
Karin Gruhler (Institute of Ecological Spatial Development, GERMANY)

European environmental seal of quality for buildings

Andreas Blum (Institute of Ecological Spatial Development, GERMANY)

Analysis of the primary process to lengthen the economical life span of building components
Herman Templemans Plat (Eindhoven University of Technology, THE NETHERLANDS)

An attempt to measure the unsustainability

Jana Suler (National Research Institute for Urban and Regional Planning, ROMANIA)

Managing environmental information in design

Robert W. Pollock (The Robert Gordon University, UNITED KINGDOM)

Necessity of common understanding of sustainability in construction in Asia

Keizo Baba (Kochi University of Technology, JAPAN)



THE PLACE - GÄVLE

- The Green City by the Sea -

Gävle was founded in 1446 when trade, fishing and shipping used to be the dominant occupations. Today the old fishing town has become more high tech oriented with electronics, metallurgic and wood based industries. Gävle is the administrative capital of the province and a centre for building and community planning research and education.



Travelling to Gävle is easy. If you take the high speed train it will take you only 90 minutes from Stockholm (75 minutes from Arlanda Airport). By car it will take about 120 minutes from Stockholm and 90 minutes from Arlanda.

Gävle, the green city beautifully situated by the sea, presents tastefully arranged parks and flowerbeds, wide avenues, plentiful cafés and a rich artistic heritage. In Gävle you find everything close by. Hotels, museums, restaurants, shops are all within walking distance.

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