

## **Healthy Buildings / Cities**

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High rise living, as a way of life in major Asian and South American cities today, sets a challenge for urban sustainability. Since the early '70s, the emergence of high-rise building, for residential, commercial and working environments, including mixed uses to a certain extent, have met with acceptance by urban planners, developers, designers and, more significantly, with urban dwellers in many of the world's most densely populated regions. Unfortunate global outbreaks such as SARS, Severe Acute Respiratory Syndrome, in March 2003 has, however, cast serious concern over the health and livability of this particular way of compact living, often associated with high-density and high-rise buildings, threatening health in dense cities.

In recent years, researchers, practitioners and planners are actively engaged in the study of the benefits and consequences of high-density living, underlying environmental attributes for this form of urban development, often considered controversial by European and American standards and expectations. At the same time, the 'compact cities' movement raised significant questions in reaction to low density urban sprawl and the 'town to country' migration phenomena, typical of central industrialized countries of Northern Europe and North America. It is interesting to observe that both tendencies are being replicated by emerging and developing countries of other regions as part of the globalisation process in building design and technological innovation, with disregard for people, place and environmental contexts. Environmental impact of building in relation to cultural and social contexts requires qualitative values, which need to be taken into account when considering building form and urban character. Compact cities are not necessarily related to compact urban development, while compact urban form at local level does not always lead to compact cities. A key issue for debate will not only address the discussion on density but also intensity and mixed-use, related to vitality, flexibility and adaptability, in the search for safe and healthy urban environments.

Links between design decisions, at building, micro-urban and urban scales, in the context of sustainability need a thorough revision and a profound debate as potential environmental impacts are implied in the modification and transformation of urban fabric. Density and morphological patterns are key variables related to urban sustainability with special reference to regional differences and climatic conditions.

In the evaluation of sustainability of the built environment, a wide range of scales and effects are involved, where designers have to integrate different aspects of project decisions, management and implementation. Therefore, they require an ample vision of potential impacts as well as recognition of their relative importance in order to allow mitigation or reduction of the impacts by the production of the built environment.

Another scale of concern is the indoor air quality, artificial conditioning systems, sky garden and microclimatic considerations associated with high-density environments and high-rise buildings, a crucial issue for debate.

The evaluation of sustainability in both proposed and improved built environments at building and city scale, is a current challenge, requiring the development of new criteria and skills.

This panel would like to initiate a useful discussion of the environmental design of healthy buildings and healthy cities.