Bo01
– architecture and sustainability

Bo01 City of Tomorrow
European Housing Expo and Exhibition
in Malmö 17th May – 16th September 2001.

City of Malmö
Department of planning
and building control
SE-205 80

Telephone +46 40 - 34 10 00
Fax +46 40 - 97 03 14
e-mail eva.dalman@malmo.se

www.malmo.se

Bo01 – City of Tomorrow
Box 453
SE-211 21 Malmö

Telephone +46 40 - 668 09 00
Fax +46 40 - 668 09 10
e-mail hanna.roberts@bo01.com

www.bo01.com

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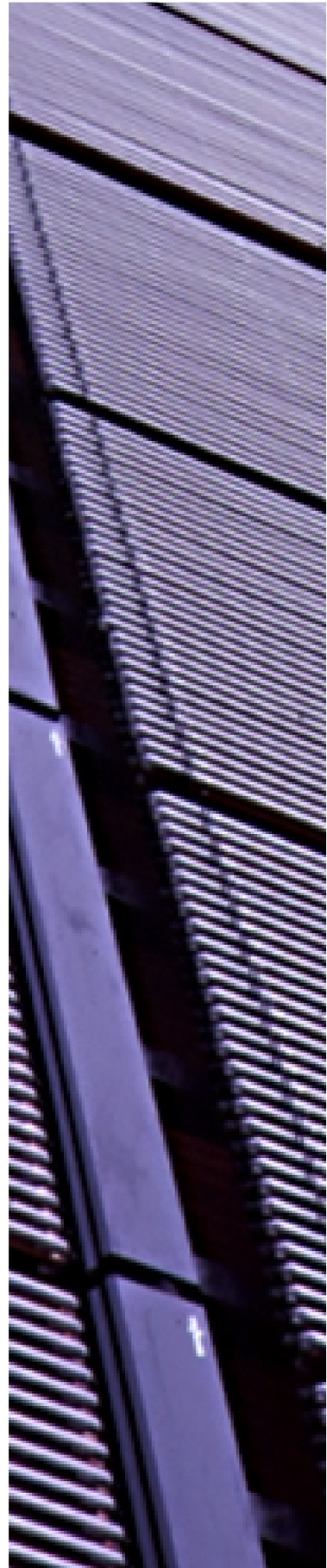

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Four fifths of the world's population will be living in cities within a few decades. Urbanisation generates economic development and well-being, but also leads to problems with water and sewage, traffic, poor energy systems and over consumption of resources. Solving the cities' environmental problems is therefore the key to a sustainable future.

An urban district is under construction in Malmö's Western Harbour which will be the focus of the first European Housing Expo Bo01 – City of Tomorrow between 17th May and 16th September 2001. The theme of the housing expo and district is The City of Tomorrow in the ecologically sustainable information and welfare society. Visitors will be able to participate in a wide range of environmental activities such as study-tours, advice, information, exhibitions, seminars etc.

The aim is for the district to be an internationally leading example of environmental adaptation of a densely built urban environment. It will also be a driving force in Malmö's development towards environmental sustainability.

Architecture contributing to sustainability

Photo by Jens Lindhe

Current discussions about how we can make the transition to becoming a sustainable society are dominated by issues related to natural resources and the closed-loop system. How can we produce less garbage? How can we conserve water and energy? These are important questions that have rightfully been given prominence. Solutions must be found.

Still, there is another significant aspect to the issue. How do we create built environments that supports the human being? How do we design attractive and vital sustainable cities? These and similar questions were the springboard to ideas surrounding Bo01.

If we are to achieve a successful transition to sustainability, the sustainable alternative must be as appealing as the non-sustainable. It must be as comfortable and pleasurable to live a sustainable lifestyle as it is not to do so. Why is this so important? The simple answer is that people are governed by their emotions as much as by their intellect. That is why we need attractive alternatives now - so we will have a fighting chance at changing our society before it is too late.

In this respect, the contributions of architecture and design are critical. The architects and designers at Bo01 give the city and the objects something that human beings need: beauty. A beautiful environment strengthens us and instills joy in us. When environmental technology is shaped with conscious design and when the eco-buildings show examples of stunning architecture, the sustainable alternative becomes a sensory delight.

A good living environment

Good architecture marries functional requirements with good design. The objective must always be to create a good living environment for those who will be working or living in the buildings. A good building should have a pleasing indoor environment. Beautiful natural lighting in the rooms is one example. Windows should be placed and designed so that natural light flows into the interior in an esthetically pleasing way. Think of older houses where mullioned windows soften the transition from the dark room to the world outside. A room with windows facing in more than one direction also gives a delightful impression of natural light and an unobstructed view.

The way that rooms are designed is also important. Long and narrow rooms are avoided at Bo01, since they are often difficult to furnish and make full use of. Instead, designers have created squarish rooms, with a preference for a little extra height. These multipurpose rooms can be easily used as a study, a dining room, bedroom, computer room, or living room. This approach will probably lead to longer sustainability for the home.

The connections between the rooms must also be thoroughly considered. The interior location of the rooms must lend themselves to different uses. A bedroom is not an ideal passageway, for instance. Beautiful transitions between rooms can also fascinate us. Views through rooms where the light falls in an unexpected way can be sheer poetry. The Danish artist Hammershøi captures the atmosphere in his paintings, where one sees rooms where the light filters in softly from the side and makes the floors glow.

Photo by Ole Woldbye

"Dust dancing in the sun"
Vilhelm Hammershøi (1864-1916)

Materials and methods

Sustainable architecture is also a matter of choosing materials and methods that are beautiful and have long lifetimes. This may mean that construction costs a bit more, but the expense can be recouped through lower maintenance costs. Properly chosen materials endure and are easily maintained. Buildings of heartwood can stand for a thousand years – Norwegian stave churches are but one example. When individual components decay, they can be replaced. Stone is an even more durable material. The Romans built so well that their monuments survived two millennia of wear and parts of them have been reused as building materials for new buildings.

Robustness means that something lasts a long time. It goes without saying that people lavish more care on the beautiful than the ugly. Buildings with details that breathe meticulousness and beauty inspire respect and, in the best cases, a touch of reverence. We want to keep the beautiful with us as long as possible, so we fix it and polish it. Meanwhile, we couldn't care less if the dreadful is replaced before its technical lifetime is over. The avocado green appliances popular in the 1970's are a textbook example. Countless refrigerators, stoves and the like were thrown out solely because of their color when people got tired of it. At Bo01, many architects have strived to express timeless and classically beautiful design.

Consumption of resources

Architectonic solutions affect the consumption of resources in a building. First and foremost in more obvious ways: the thickness and construction of walls determine how energy efficient the building becomes and whether warmth from the sun is utilized by means of large west and south-facing windows. But also in a way that is less often discussed - skilled architects create solutions that make the most efficient use of space possible. This is something that has tremendous impact on the total consumption of resources over the lifetime of the building. Bo01 offers several examples of this principle.

A pleasant home must have useful spaces. When transition spaces take up too much room, when door openings are in the wrong place and the doors open in the wrong direction, opportunities to put every square meter to use are limited, which is irritating. Dead space is a waste of resources that brings no joy to anyone. Here the architect can contribute with floor plans that yield lower construction and operating costs because they save on materials as well as energy costs.

Photo by Jens Lindhe