

The Unreasonable Man

"The reasonable man adapts himself to the conditions that surround him...

The unreasonable man adapts surrounding conditions to himself... All progress depends on the unreasonable man." George Bernard Shaw

The socio-environmental ethics will be the engine of a new long-term cycle in the real estate market, which now witness its dawning. This will have a historical significance that will be equivalent to the development of reinforced concrete, which revolutionized the construction industry since 1850. The contemporary transformations began in the 70s, with the spread of ideologies proclaimed by the environmental movement, that flocked to housing and only took off a few years ago, with the publication of green building standards such as the English BREEAM in 1990 and the certification of thousands of projects in several countries.

This green tsunami will inundate the entire face of the earth in 10 or 20 years and will hit us sooner or later, depending on: 1- the society's demand for sustainable buildings, 2- the commitment by the real estate and construction industry associations to establish and stimulate the achievement of social-environmental goals for the sector, 3- the broad understanding of the theme from the entrepreneurs and the subsequent incorporation of these concepts into their businesses, 4- the approval velocity of laws that require greener real estate and 5- the development and production growth of new green technologies.

In this new scenario, there won't be new buildings designed like they are today. Standardized, regardless of climatic region where they are built, that don't consider what options would be more appropriate to the location in terms of architectural style and specified materials. Apartment buildings that don't take solar orientation and prevailing winds into account, for example, when all the four apartments at same the floor and all sides of the facade have absolute symmetry, with the lay out fully optimized, aiming only to reduce costs. But the facades of the buildings, their implantation on the ground and the layouts will be adapted to natural conditions, which will become the determining factors in the product design.

The first Green Building in Brazil was the Rochavera Corporate Towers, which has its own electric power co-generation that is able to provide all the necessary energy to the buildings. In the technical direction of the multinational real estate company that developed these towers, there is an enthusiast of this matter, Mr. Luiz Henrique Ceotto. Within this small group of unreasonable men, he is one of the most technical and rational, which certainly uses all his experience to justify to shareholders, with financial and economic arguments, the use of these practices in their projects.

Existing buildings have a crucial role in this issue, since they dominate the built environment and most of them were designed over 10 years ago, when there was practically no such concern. In the United States, the retrofit has mainly focused on reducing energy consumption. One of the most emblematic cases was the challenge to make the Empire State Building in Manhattan more energy efficient. The cost of construction was US\$ 16 million, which reduced energy consumption by 38% and saves US\$ 4.4 Millions per year in this regard. Additionally, it improved the user's working conditions, reduced absenteeism and health problems.

Companies are also building or adapting their headquarters with responsibility. The software maker Adobe, by determination of its two founders, has implemented several actions at its headquarters in California and reduced consumption of energy by 35%, gas by 41%, water by 22% for human consumption and 76% for irrigation. Reduced pollution by 26% and CO2 emissions by 36%. Sends 95% of solid waste for recycling. Allocated US\$ 1.4 million in investments related to the reduction of energy and is saving US\$ 1.2 million per year. Has a 121% rate of return on investment with an average payback of 9.5 months.

In terms of urban planning, since 1995 a succession of five administrations, very well conducted in Bogota, Colombia, made these mayors, a fine bunch of unreasonable men. Antanas Mockus, Enrique Peñalosa and others, built 300 km of bike lanes, in a city where cars dominated the streets (and sidewalks!). The people joined the government initiative, and the number of cyclists, grew 900% and currently has 350,000 users. Another city that prioritizes walking and cycling in urban mobility is Vancouver, Canada. They established a long term vision for the city, where cars would not dominate and there would be no highways near downtown. For this vision to be achieved, it was necessary to remain valid for several consecutive administrations, with stability of the urban planning team, committed to this mission. According to Richard Florida, author of *Who's Your City*, "every town has its own personality." What is missing in Brazilian municipalities is to clearly communicate to all its citizens and carry out coordinated actions, according to a long-term planning.

Worldwide, new cities are being born with the DNA of sustainability, like Masdar City in Abu Dhabi, designed by the architect Norman Foster's office, who has zero carbon emissions and zero waste.

However, some professionals fail when they try to convince their peers, whether they are partners, bosses or investors, to follow the path of sustainability, as yet insufficient data exist or they do not have the knowledge necessary to prove that it is feasible.

If they add these costs to the developments, they will not obtain the proportional increase in the selling price. They must assume the risks of pioneering the development of new products and adopting new technologies, which can sometimes fail. So, only a small fraction of them are putting these theories into practice. They do it because they deeply believe that the built environment must be sustainable and their motivation may be religious, ethical, or even from a strict business perspective, for those who are able to foresee that this trend is irreversible and therefore there will be future benefits to their companies.

Fortunately these human beings are more unreasonable than most of us, and they persist in trying to adapt the world to them, as the proverb says: "Though you grind unreasonable men in a mortar, grinding them like grain with a pestle, you will not remove their insensateness from them." so, there is progress.