

# Architecture and planning of urban and rural territories

## Manifesto for a happy frugality

### **Time is running out**

Alarm bells are ringing on all sides. Reports published by the UN Intergovernmental Panel on Climate Change (IPCC) confirm human responsibility for global climate change. More than 15,000 scientists say it will “soon be too late to deviate from our path doomed to failure, because time is running out”. The UN deplors the fact that greenhouse gas emissions are stagnating at 52 billions of tons per year, whereas they should be limited to 36 or even 24 for global temperature rise to stay below 2 °C, which would allow a peaceful future. The 2017 UN Climate Change Conference, COP 23, displayed a sense of helplessness. The commitments made two years previously at COP 21 will lead to an increase of 3 to 3.5 ° C. But let's remain optimistic, there is still time: “We have 3 years to act,” warn Jean Jouzel and Pierre Larroutourou.

### **Threats are piling up**

In addition to climate change due to greenhouse gas emissions, other threats are accumulating: accelerated decline of biodiversity; increasing scarcity of non-renewable resources; increased pollution of air, land and sea; growing inequality as a result of the distribution of wealth and the impact of global deregulation... The mere control of energy will not suffice.

### **Words and deeds**

Do the political choices made measure up to what is at stake? Successive governments announce initiatives that they end up postponing. Thus, the goal of reducing the proportion of nuclear power in the electricity mix has been postponed indefinitely, ruining the rise of renewable energies for many years. Since the financial crisis of 2008, the environmental goal is no longer the essential priority it was at the beginning of this century. The downward revision of commitments, the announcement of notoriously insufficient budget measures and a massive lack of energy-efficient building renovation, attest to this and are worrying.

### **An obsolete mode of development**

Why refuse to see the future? Are we forever trapped in a blind development mode? How can the increased production of goods be promoted without seeing the depletion of resources and the increase of global crisis? How can financial prosperity be enjoyed without inflating inequalities and our debt to nature? How can selfish competition be favored without seeing solidarity exhausted and generosity suffocated? This mode of development of another age is paralyzing ecological and societal transition.

### **The good news**

But the world is changing and seeds of new possibilities sewn across the whole planet are growing. An agriculture concerned with humans and nature is less and less marginal, local distribution networks are being developed. A cooperative, social and solidarity economy is being established outside the market sectors and those who proclaim themselves collaborative. In people's minds, shared use is taking precedence over possession, pooling over privatization, sobriety over waste. A new world is being born.

### **The major role of builders**

Building and planning professionals cannot escape their responsibility. Their fields of action emit at least 40% of greenhouse gases for buildings, and much more with transport induced by town planning choices, such as a strong preference for new construction rather than rehabilitation. Choices that remove every 10 years the equivalent of the area covered by an entire French department in agricultural land (approximately 5,700 km<sup>2</sup>). Collective and individual commitment is vital.

### **Frugality in energy**

The building world is also changing. On a territorial level, the French Environment and Energy Management Agency, ADEME, has presented 165 providers of local, participatory projects for the production of renewable energy. On the level of buildings, we construct edifices that are healthy and pleasant to live in, without mechanical ventilation, air conditioning, or even heating. Thanks to natural ventilation, passive cooling, recovery of free heat and thermal inertia, and bioclimatic design, energy consumption is reduced to a strict minimum, while ensuring increased comfort. We know how to do it and it doesn't cost any more. Why not promote these practices?

### **Frugality in materials**

We know how to do without materials that waste resources. Wooden construction, for a long time limited to single-family homes, is now being implemented for major public facilities and collective dwellings of over 20 floors. Bio-sourced insulators, marginal until recently, now account for almost 10% of the market and 10% more each year. Soil, earth, our heritage, is coming out of the purgatory into which the twentieth century had plunged it. All these advances consolidate the development of the sector, and of local know-how on a national scale.

### **Frugality in technology**

Frugality in energy, raw materials, upkeep and maintenance entails low-tech approaches. This doesn't mean an absence of technology, but the use of relevant, appropriate, non-polluting or wasteful, techniques along with appliances that are easy to repair, recycle and re-use. In realization as in design, frugality requires innovation, invention and collective intelligence. Frugality rejects the hegemony of the technological vision of building and maintains the involvement of the occupants. It is not the building that is smart it is its inhabitants.

### **Frugality for the territory**

Whether located in urban or rural areas, the frugal building is concerned with its context. It recognizes cultures, places and draws its inspiration from these. It uses land and local resources thoughtfully. It respects air, soil, water, biodiversity, etc. It is generous towards its territory and attentive to its inhabitants. By its program and constructive choices, it favors everything that reduces its ecological footprint, and everything that renders it fair and enjoyable to live in.

### **Frugality for buildings**

Ecological transition and the fight against climate change contribute to the prudent use of non-renewable resources and the preservation of biological and cultural diversity for the creation of a better planet to live in. The maintenance of the town-planning and architectural solutions and techniques of yesterday, as well as current modes of living, working, eating and travelling, is not compatible with the task that befalls our generations: to contain and then eradicate global disturbance and malfunction. Frugal building and frugal territory – urban and rural – are the answers we choose. We share them in our lessons, our interventions and our publications. We implement them in our work to accompany the establishment of a happy and eco-responsible society.

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