

## Resume Sacred Houses versus Sacred Grounds

### On the balance between sustainability and stainability.

Thesis for obtaining the degree of Master in Urban Environment and Sustainability

(Master en Medio Ambiente y Sostenibilidad – MAUS)

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## METHODOLOGY

The making of this thesis has been a process of one year, during which I first of all did some research on the existing literature, related to the sprawl phenomenon and the ageing of the population in industrialized countries. My mentor Carl Bourgeois told me an interesting book to read on contemporary evolutions in society was 'De Capsulaire Beschaving' (Capsular Culture) by Lieven de Cauter (2004). During the reading of this and other books, I constructed a framework which eventually became the content or index of this thesis. I decided to make a theoretical part and a more practical part. Theory are parts I and II, application are parts III and IV (see content).

Because of the content of the text, which is related to information (negative entropy), I decided to also work on the presentation of the thesis. Next to the text printed out on DIN A4, I made a book on DIN A5 that is made up out of a formal and an informal part.

Since I worked on this text in Belgium with a Belgian mentor, it was agreed that I could hand in this thesis in English.

## CONCLUSIONS

This thesis is made up out of four chapters. The first chapter (MANUAL) mainly offers content, bibliography, and overall conclusions.

In the second part (GLOBAL THINKING), I try to define the relationship between **entropy, globalization and sustainability**. I wanted to make clear what sustainability means and why it is so hard for humankind to accomplish living a sustainable life. Next to this, I wanted to see if these results could mean anything for urban planners and architects. They shape the environments we inhabit – to some extent – and play a role in the mediation between sustainability, globalization and entropy.

### ENERGY

It appeared to me that all is related to energy, which we need to sustain our lives. **Energy** is necessary for living, for moving, and so on. All is connected to this notion. Supposedly, the amount of energy in the universe is fixed; it does not increase, nor decrease. But the form in which it is useful for mankind, changes continuously.

### ENTROPY

This characteristic is related to **entropy**. The fact that the **energy potential** of an object decreases when consumed, used or moved, is caused by entropy; While the energy state of an energy-containing-body changes from one condition to another, heat is lost to the environment, and thus the body is left with less energy.

In short, because energy constantly changes from one condition to another, resulting in our dynamic reality, a constant decrease of the potential of energy is caused. One could visualize the entropy-process as a **centripetal movement**, which acts randomly. Because of entropy, energy is

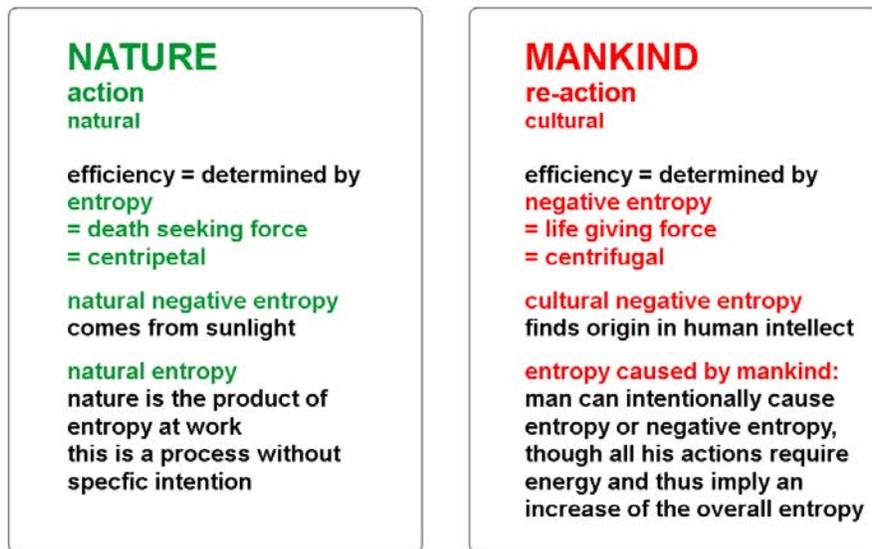
a scarce resource. Because of entropy, we know our natural environment. All we know is the result of entropy.

#### NEGATIVE ENTROPY

On the other hand, there is **negative entropy**, which has the reverse effect on energy. One could visualize its effects as a centrifugal force. Negative entropy causes the reconstitution of energy to a form which is useful for mankind (for all goals boiling down to the mastering of energy, ranging from the generation of information to the production of energy resources).

#### PRODUCTION OF (NEGATIVE) ENTROPY

Both entropy and negative entropy are caused by both **mankind** and **natural processes**. All natural processes tend to entropy, since their **efficiency** is determined by entropy. **Diversification** is an important result of natural processes, but it seems chaotic to mankind because of its complexity. Nature causes also negative entropy because the sun radiates energy into the atmosphere of the earth, resulting in the complex system we are part of. All cultural processes are reactions of mankind on these natural processes, in order to survive. The efficiency of mankind is determined by negative entropy; though we also generate entropy, since we are part of nature. We can do this intentionally or not, though most of the time mankind is forced to help entropic processes.



#### SUSTAINABILITY AND GLOBALIZATION

The notion of sustainability is often referred to without really knowing what it means. Many relate sustainability to diversity of species, clean water, clean air and the like. These notions are scarce or have become fiction since industrialization and globalization have brought standardization, pollution and severely narrowed down the gene pool on earth.

Mankind cannot live a sustainable life. The world population is growing because of numerous reasons that can all be boiled down to **globalization**;

1. Because of **scale-enlargement** made possible by advanced technological innovations, mankind has become able to overpower and dominated the natural processes. Experience has also contributed to this scale-enlargement, since communication has become much easier over the years.
2. To do this, mankind has used up a major part of the organic energy resources available on earth and with this, generated a lot of detrimental effects for the environment.
3. Standardization has enabled man to enlarge the production of goods and to generate money (value). This wealth has led to investments in human life, extending the duration of life;

This all has led to our present economy (trading system for energy) which divides the world up in the northern and southern hemisphere. The old European continent formed the basis; the American continent and speeded up the process of globalization with inventions made for warfare that later on found their way to the consumption society.

#### DEFINING THE URBAN PERSPECTIVE TODAY

People need protection from their detrimental and endangering natural and human environment. To a large extent, they find protection in houses and cities. This way, these constructions show the ability of people to overcome entropy. Constructions show the level of negative entropy (order) that is mastered by a culture at a certain time in history.

When we look at the evolution of city form, we find an expression of a specific order that was imposed on the environment of that people. Contemporary living in industrialized parts of the world is characterized by a centripetal movement. The city is used for the generation of information (negative entropy) but the actual living happens in the more and more fragmented countryside. This pattern is referred to as the **sprawled condition**. Because of heightened personal mobility (car) and the information access (internet and wireless phones), the city as it was known for ages faces its end. The urban condition has become omnipresent and endangers equilibrium with other species.

For this text, I looked at the specific case of Flanders (Belgium) that is characterized by the fragmentation of its landscape. The urban condition of Flanders is often referred to in texts on sprawl because of its early industrialization and lack of urban planning. This is done in the third part of this thesis (CONTEXTUALIZATION)

#### SACRED HOUSES VERSUS SACRED GROUNDS

So what does sustainability mean and why it is so hard for humankind to accomplish living a sustainable life? Both questions are somehow answered in what is stated above.

**Sustainability can not be reached.** Those that want to make an ethical effort can strive to reach equilibrium with nature as much as possible, in order to compensate for our stainable character (characteristic for nature – that we are part of).

Since we are human beings, we have to **respect** our stainable nature as much as we have to respect the stainable nature of other species on earth. We have to learn to accept that some people choose for their “sacred house” (representing human culture) and others for “sacred grounds” (representing nature). We find the respect for sacred ground in primitive nomadic cultures, living

together with nature. We find the respect for what mankind produces (technology) in more complex cultures. People have to become aware of the fact there is another, more difficult way.

Human species will disappear from this earth. This is a fact that we have to accept.

The only thing we can do is

1. or choose to do nothing about it (culture of the “sacred house”)
2. or to shift this fact to some place in a more distant future, by respecting the environment.

We have the choice since technology has offered us the possibility. Mankind is able to produce clean, renewable energy from wind, and solar power. Also water and soil offer clean energy. But a lot of investments have to be made. This demands huge investments that will only happen if the awareness rises.

Architects and urban planners can do something with these insights. They can offer spaces to people that make them aware of this harsh reality or help them to forget this reality. In the fourth part (LOCAL ACTING), I talk about some tools that can contribute to this discussion. These tools might be able to ameliorate the conditions for all, either in accepting the entropic reality (social tools), either in resisting it (formal tools).

Eventually, the power to decide lies in the hands of the mass. The future though is unknown. We can only try to individually act respectfully towards as many as possible.

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