

Neuro ergonomics of space

"The more intelligent and sensitive an organization is, the more it will respond to information and stimuli coming from outside"

The effect of space on mind and body

Sometimes we find that we have invested time and money to finally get away to a nice place, expecting a relaxing weekend or holiday, when in fact our bodies never really are able to let go. Why is that?

To understand why, we have to look at the way our organism functions. Like a computer that would be just an empty box if it weren't for the programs activating it - causing it at one moment to be a writing machine, at another, a calculator, a designer's desk or a communication device - so, too our organism has its programs which determine our state and function. While we have an infinite number of available programs, some are more essential than others. Among those, two are particularly relevant to our question: the program for action and the one for recuperation.

When the body prepares itself for action, it activates its muscular components, leaving the viscera in stand-by. When on the other hand, the body needs to recuperate, it does exactly the opposite: it activates its viscera, especially those organs that provide for cleansing through the elimination of toxins (mostly the liver and the kidneys), providing for a sense of recuperation and renewed freshness. Then the muscular system goes into stand-by (think for example of the sensation of muscular weakness in the case of flu, when the energy of our organism is committed elsewhere).

Ideally our 'action program' (or sympathetic response) would be activated during working hours and our 'recuperation program' (or parasympathetic response) would take over before and after that (i.e., evenings, weekends and holidays). Unfortunately this is often not the case. Sometimes we feel a certain inertia as we prepare to go from one state to the other. For example, our work week may start on Monday morning (or our work year in September) but we have trouble feeling productive. Or the weekend begins (or our holidays) and we are unable to let go enough to recuperate. What is happening?

First of all it is useful to understand what activates and deactivates these basic programs of ours. One of the major factors determining our specific psychophysical condition is the particular quality of our surrounding space, defined by dimension, proportion, form, color, disposition, etc. Some qualities have more affinity with one program (the sympathetic system), others with the opposite (the parasympathetic system). To better understand the effect of space on a person, try to imagine music composed by an artist in a state of serenity as opposed to music composed in a state of restlessness. The music will be impregnated, so to speak, with the psychophysical condition of the artist and will thus evoke in the listener a similar condition.

The same happens with space. Designers "impregnate" space with a certain psychophysical condition that for years to come will condition those who enter it. Observing public spaces like hotels, restaurants, or wellness centres, you often notice that the spatial codes contradict the function of those locations. The minds and bodies of those who use the space suffer from the impact of contradicting messages that, although they may not be perceived consciously, nevertheless create a profound feeling of discomfort.

In practice, neuro ergonomics consists of 1) pointing out the psychophysical condition caused by a certain space, 2) aligning a space's spatial codes with its purpose and 3) making proposals for adjustments and solutions that can reduce or eliminate the inconsistencies. For projects still in the planning stages, it is possible to work alongside designers to inform them on the physical and psychological implications of the different design choices. This means to enter literally in a "body-conscious design" perspective, a way to approach any design work which is aware of the consequences that any project has on our entire being.

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