

*In Holland a third way is emerging between those architects who view building as essentially an attack on nature ‘as victim’, and the mainstream with built-in tendencies to see environmental issues as a necessary irritant. This third way includes the Smart Architecture Foundation, whose philosophy of ‘smart being inherently sustainable’ outlines this intermediary path. Their co-founder Jacques Vink explains.*

## Smart and sustainable: Holland’s Smart Architecture Foundation

The mission of the Smart Architecture Foundation is to create and discuss concepts and ideas for buildings and cities that combine optimum performance with a minimal use of materials and energy.

Many of the so-called ‘green architects’ tend to look upon nature as a victim, brutalised by the fierce attacks from ‘unnatural’ technology. Others look upon environmental issues as a nuisance, a complicating factor in the design process. The Smart Architecture Foundation rejects both views. It is their belief that nature and technology should be looked upon as allies, not enemies or victims. Thus, truly sustainable, integral, smart solutions can only be found by rethinking the starting points, concepts and typologies of architecture and city planning itself. The Smart Architecture Foundation searches for powerful, green, smart ideas that deliver the much-needed innovations in architecture, design and urbanism.

Founded in 1998, the Smart Architecture Foundation built its website, [www.smartarch.nl](http://www.smartarch.nl) and published in several international architectural magazines. The co-founders are now working in their own practices on concrete projects. ‘Process Practice’, part of the publication *Smart Architecture* contains some of their work.

### Process Practice

(from *Smart Architecture*)

Buildings are not inert things, they are alive. This insight seems to be radically altering the way architects work. While many still feel that their buildings look their best on the day they were delivered and ruefully watch their spiritual offspring age from that day on, more and more are grasping the fact that buildings are not some lifeless end-product but that they change over time. These architects often work at practices where environmental issues are addressed on the road to a sustainable architecture.

If we examine the spectrum of so-called sustainable or ecological architecture, we see a ‘deep-eco’ attitude at



one end and a ‘high-tech’ approach at the other. Both stances locate architecture in time but in fundamentally different ways.

The ideal behind the deep-eco attitude is a cyclic time frame. Just as primitive peoples live in ever recurring cycles of seasons and generations, so too should we, for the sake of the environment. The deep-eco attitude rejects progress, seeking instead to at least maintain the status quo from a defensive, conservative position. Instead of the efficiency, momentum and renewal inherent in the process of modernisation, it propagates reduction, inactivity and even a return to a pre-industrial era. Buildings designed on the back of this ideal, one might assume, should be fundamentally different from those being built today. In reality, the distinction is not that great. Aside from reinstating many neglected materials and developing eminently usable construction and installation techniques, these buildings still look familiar to us.

At the other end of the spectrum is the high-tech attitude; whose state-of-the-art application of climate-responsive techniques sets out to lessen the building’s negative impact on the environment. It slots into the generally accepted time frame, which is linear instead of cyclic. Its practitioners seek to achieve an ideal situation in the future. Everything will be better then, they claim. And if the climate-control equipment doesn’t do its job properly, well, just add some more. This strand too has provided many, largely technical innovations. For one thing, innovations in eco-tech have lifted the ban on

transparency. Glass buildings used to be notorious energy-wasters, their whole image was negative. High-tech has become eco-tech and has shown during the past decades that energy efficiency and a transparent architecture can go together well.

Much has changed as a result of these developments. In the Netherlands, buildings and urban areas are cleaner and more energy efficient than they were a few decades ago. Slowly but surely we have seen energy efficiency, the use of alternative sources of energy and environmentally friendly materials, percolating into everyday building and architectural practice. In part through government legislation, in part unquestionably out of a sincere environmental awareness, construction techniques are becoming more enduring, so the impact of building on the supply of raw materials and fossil fuels is decreasing. But all this has done little to produce a truly new architecture.

Despite these efforts to build a better, cleaner world, current architectural practice can't seem to shake off the traditional image of buildings as static objects and the equally traditional notion of what architects do.

The circumstances surrounding a building's functioning, and accordingly the demands made of it, are constantly altering. This holds for short-term as well as long-term change. The way a building is used can change drastically from one day to the next, or even at different times of the day. And it is not only the use that changes, the external circumstances are dynamic too. In the short term, the climate changes in a rhythm of seasons and a rhythm of day and night. In the long term, there is the dynamic of the changing physical and social context. How much more comfortable and enduring buildings would be if they could react flexibly to these changes, if they were to form a self-evident entity with nature. Architects are going to have to reformulate their brief if this is to be achieved.

Instead of being merely the producer of a unique three-dimensional product, architects should see themselves as programmers of a process of spatial change. The time factor and the fact that life is enacted in dynamic processes needs incorporating in the architectural design. A process-based architecture of this order brings about a process rather than a finished article, a set of possibilities that puts the product aspect in the hands of its users. Process-based architects need to concern themselves most of all with creating a field of change and modification, with generating possibilities instead of facts. It doesn't need to be an immaterial, virtual architecture. On the contrary, the presence of a physical, spatial structure always will be a necessary condition for potential use. It is the form that is no longer stable, that is ready to accept change. Its temporary state is determined by the circumstances of the moment on the basis of an activated process and in-built intelligence and potential for change. Not product architecture then, but a process-based architecture whose form is defined by its users' dynamic behaviour and changing demands, and by



the changing external and internal conditions; an architecture that itself has the characteristics of an ecological system, that emulates nature instead of protecting it, and therefore engages in an enduring fusion of nature and culture. Now that would be truly groundbreaking ecological architecture.

A process-based architecture as described above has yet to become everyday practice. Yet it does exist. In our immediate surroundings we know of several mainly fledgling architectural practices that are working on such an approach to architecture, each in their own way. We will be showcasing a number of these neighbouring practices in the final section of the book. There is not the last word on the subject, nor are they the only ones. We are convinced that many such firms exist, maybe still operating in the margin and yet to break surface. Who knows, maybe these are the advance guard of a new, smart, process-oriented architecture.

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*Jacques Vink and Piet Vollaard are the co-founders of the Smart Architecture Foundation. They built [www.smartarch.nl](http://www.smartarch.nl) with Marc Neelen, Yvo Zijlstra, Marcel van der Zwet and Conny Bakker. Thanks to Machiel van Dorst as guiding spirit of the Foundation.*

*Jacques Vink, and Rene Heijne together founded the RUIMTELAB architectural practice in 1997. RUIMTELAB is a laboratory for flexibility where the architects René Heijne and Jacques Vink liaise with a network of experts. Their stepping-off point is that you can only achieve ground-breaking projects through a combination of research and design. RUIMTELAB has carried out studies commissioned by the government into buildings that can be easily modified: flex buildings. It is clear from this research that it takes more than civil engineering to successfully realise such buildings. Aspects of use and management are at least as important. Besides, it requires designers who are willing to let go of their design. For the result is not a completed 'architectural' product but a continually changing object. At the time of going to press, RUIMTELAB is working with an environmental psychologist, an architectural historian, a structural engineer and a property consultant on designs for soon-to-be-built flexible buildings. <http://www.ruimtelab.nl>*

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See also review of the Smart Architecture Foundations book *Smart Architecture* (along with the composites materials catalogue *From Bakelite to Composites*) on the *Fourth Door* webspread-site Unstructured; [www.unstructured.co.uk](http://www.unstructured.co.uk)