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CONSIDERATIONS REGARDING THE ENVIRONMENT

CONSIDERATIONS REGARDING THE ENVIRONMENT OF A BUILDING ARE OFTEN PERCEIVED BY THE DESIGN INDUSTRY AS AN ADDITIONAL CONSTRAINT OR OBSTACLE IN A WORLD BESET BY BUREAUCRACY, SAYS *SOFIE PELSMAKERS*

The building industry is overloaded with regulations, design guides and sustainable frameworks such as EcoHomes, Code for Sustainable Homes and BREEAM. Ironically, the plethora of guidance and legislative frameworks that are supposed to help the designer to build more sustainably often hinder results. This is not surprising considering many designers today spend more time ensuring various regulations are met – to prove they are thinking about sustainability – than they do actually contemplating sustainable design.

Given that carbon dioxide is one of the main greenhouse gases and that we live in a world of finite resources, the focus on energy efficiency and carbon reductions is indeed justified, and fabric efficiency should always be the first 'renewable' to consider. However, I wonder whether the narrow focus of 'carbon counting' may be stifling architectural creativity, leaving little room and time for professionals to manoeuvre. I would also argue that it is the way in which professionals approach carbon reduction legislation, which often lacks imagination.

While the 'ticking of boxes' may have improved building efficiency, I cannot help but notice that much of its architecture lacks inspiration or ingenuity. At its worst, eco-gimmicks have been bolted on to architecture, which fails to do justice to the architectural profession and makes a mockery of environmental architecture.

Fortunately, unlike other project constraints, such as cost for example, site and environmental constraints can be used as a virtue if considered creatively. Rather than reluctantly accepting environmental requirements as another overriding and imposed 'constraint', we should use these environmental constraints as a generator of a new architectural language.

Think where architects have done this before, such as the Pompidou Centre in Paris, or the Lloyds building in London, where the architecture was generated by visibly designing the environmental services on the outside skin of the building. While not classed as particularly sustainable, these buildings highlight how playing with and celebrating an often-dull and unimaginative 'constraint' can be used to its advantage.

Other examples include Le Corbusier's later work, in particular Unite d'habitation and La Tourette. Large ventilation shafts act as sculptures and division on the Unite's roof scape, while in La Tourette, the daylight openings and roof 'canon' lights not only make for amazing play of light inside the building, but give it a distinct architectural language externally.

In environmental practice, Alan Short's rather post-modern

practice work, while not necessarily to everyone's taste, has been using environmental ethics as a generator of its aesthetic for some time. Feilden Clegg Bradley keeps refining its work and thinking in the field, and there are some exciting recent projects by others to look out for too, which managed to exploit environmental constraints to their advantage.

Of particular note is Swiss practice Bearth and Deplazes's Gantenbein Vineyard, which is a masterpiece of natural light and ventilation by simply playing with bricks. Closer to home, strict ventilation requirements were also what inspired Allies & Morrison's Charles Street car park in Sheffield and Levitt Bernstein's HIP Liverpool project. While the boundary of material choices used could be pushed further into the realm of sustainability, clearly these projects have successfully used environmental parameters and constraints as the generator of their architectural aesthetic.

Additionally, much can be learned from dRMM's Kingsdale Sports and Music School, a building which pushes the material choice further into the sustainability realm. Its form is derived from material constraints of structural engineered timber and daylighting design, while furniture is made from wall window cut-outs, and external aluminium cladding is first used as concrete formwork shuttering.

Another practice to watch closely is RHMA, particularly its housing projects Whatcotts Yard and Clay Field, where form is derived from solar access without jeopardising urban plan or architectural ambition. Additionally, they are built from 'unfashionable' eco-materials such as wood and hempcrete, and yet the resulting designs are sophisticated and inspirational.

There is also a new generation of humanitarian designers, such as TYIN Tegnestue and Voluntary Design and Build that are leading the way in this field. Often constrained by resources, their work is pushing the boundaries of what is possible to achieve, using sustainable materials innovatively to create architecturally poetic designs.

Similar constraints of money and material availability apply to architectural education, where it is increasingly exploring environmental architecture as a subject in its own right. The fact that both CAT's Graduate School of the Environment and Sheffield University's architecture students' sensitive eco-projects have been shortlisted for an award is testament to a changing culture, and one which we should all be part of. ■



Sofie Pelsmakers
Architect Sofie
Pelsmakers is author of
*The Environmental Design
Pocketbook* (RIBA,
published this month)