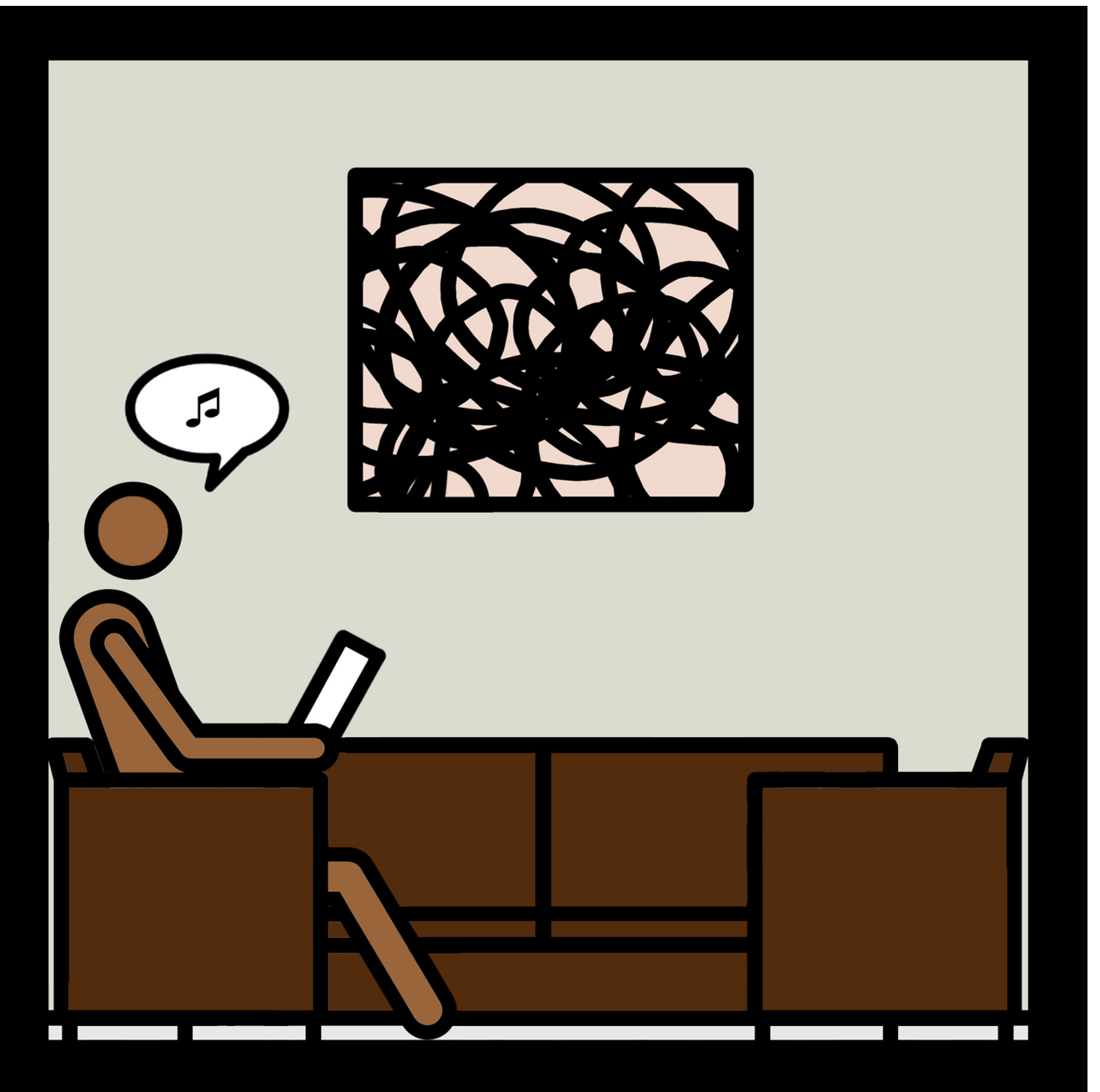
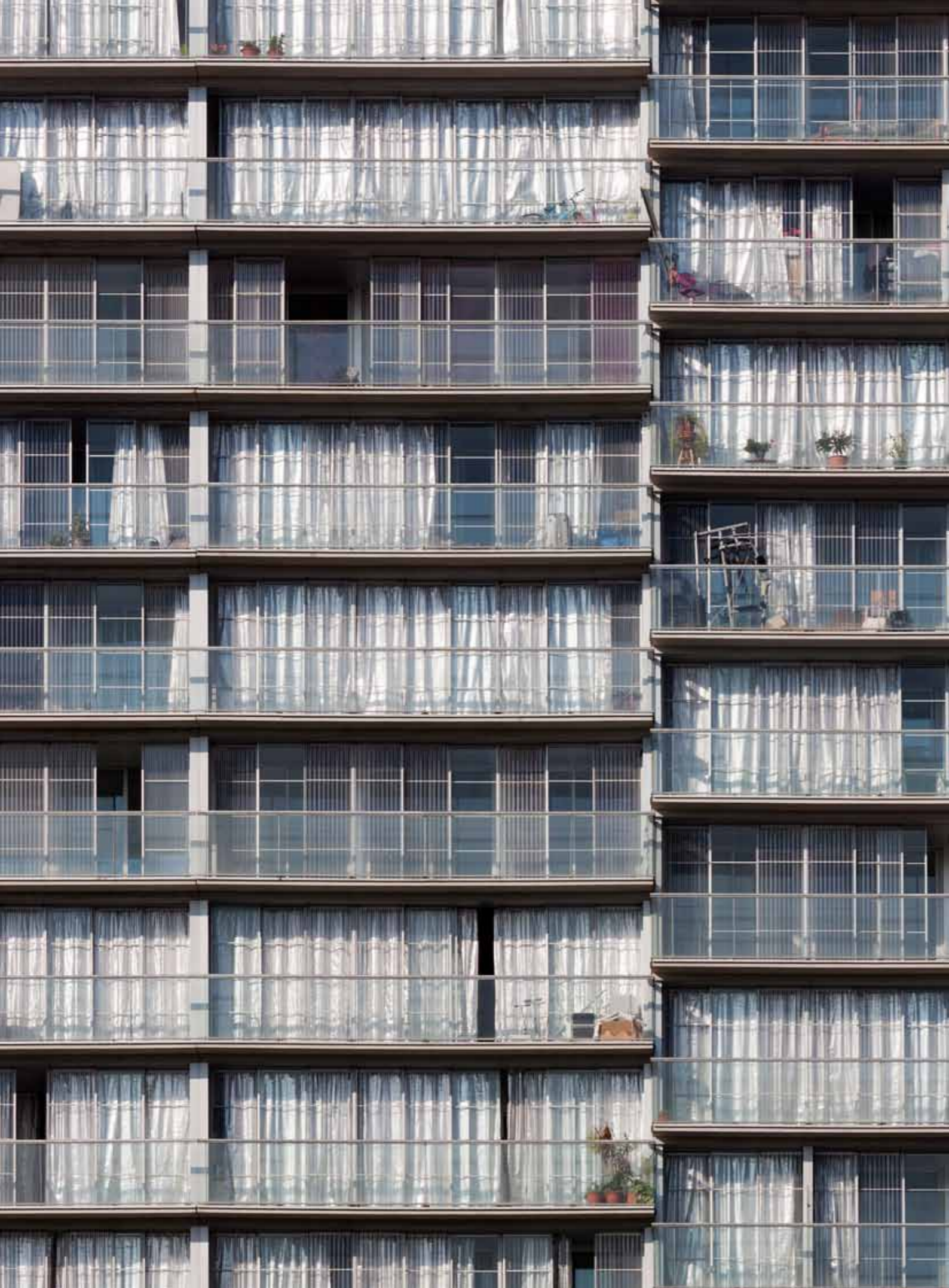


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DAYLIGHT & ARCHITECTURE MAGAZINE BY VELUX
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LIFE CYCLES





VELUX EDITORIAL

LIFE CYCLES

It is a vital goal of the VELUX Group to promote and encourage sustainable living in buildings. That means that buildings should be beneficial for both people and the climate. We think that all buildings should be CO₂ neutral and provide the best conditions for a healthy indoor climate with plenty of daylight and fresh air. An essential component of sustainability, particularly in buildings, is their ability to endure. Buildings usually last longer than human beings, so sustainable living in the existing building stock will be a challenge for many generations to come.

The sustainable buildings of the future have already been built. A mere 1 per cent of all buildings are built anew each year; so the remaining 99 per cent can be considered the 'existing stock'. Of these, about 50 per cent date from the period between 1945 and 1980 in most European countries. Many will be upgraded and modernised in the years to come in order to contribute to human well-being and the environment in the future. The potential of climate retrofitting is thus a huge one. It challenges architects and engineers to work in an area not traditionally in the province of professional planners and calls upon knowledge and experience yet to be gained. The health and comfort of the users should be the key success factor of every refurbishment. Yet how much do planners actually know about this? How much do they know about the interaction between people and buildings throughout their lifetimes?

Buildings and their occupants pass through a common, continuous cycle of learning, planning, building, refurbishing and living. Accordingly, this issue of D/A is divided into three sections addressing the topics Learning from Life, Sustainable Living and Planning for Life.

In the first section, Learning from Life, Juhani Pallasmaa, Adam Sharr and Adrian Forty address the theoretical aspects of this topic. They reflect upon the interaction between buildings and their occupants, how a house becomes a home to its dwellers and how it enhances their lives during all the phases of occupancy and ageing.

The second section, Sustainable Living, takes up the perspective of the users, reflect-

ing upon their needs and preferences. Three ongoing refurbishments of residential buildings in the Netherlands, France and Germany are presented here, with the user taking centre stage. The authors, Anneke Bokern, Karine Dana and Amelie Osterloh have asked the occupants about the atmosphere and usability of the buildings, their memories associated with them, and the hopes and aspirations that they attach to the ongoing refurbishments.

The third section, Planning for Life, addresses the topic from a planning perspective. As Stewart Brand once wrote, "all buildings are predictions. All predictions are wrong". So how can we design buildings that people will still cherish in 50 years' time, given that we cannot predict their future?

This dilemma calls for a certain degree of adaptability and openness in the design of a building, as Jasper van Zwol and Günter Pfeifer explain in their articles. Yet it also calls for a thorough 'aftercare' after the building is delivered. The latter point in particular is stressed by Fionn Stevenson and Bill Bordass from the Usable Buildings Trust in their interview at the end of this issue: every design process must include a phase of occupancy, monitoring and learning before commencing a new design or refurbishment.

The key message from the articles and interviews is that there is a need to re-think current planning practices. According to the authors, we need to put people and their well-being at the centre of all endeavours: buildings ought to be seen as processes, not products; and design criteria need to include qualitative, not just quantitative aspects. The VELUX Group encourages a holistic approach to designing buildings, which includes energy aspects, indoor climate, and the environment – with better health and comfort of the users as the result.

Enjoy the read!
The VELUX Group

D/A

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DWELLING IN TIME

Whether buildings grow old gracefully and how they appeal to our senses is fundamental to their long-term viability. In his article, Juhani Pallasmaa strongly criticises the modern world's demand for visual purity and speaks for an architecture that accepts life with all its imperfections.

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LIVING WITH MARTIN HEIDEGGER

Martin Heidegger is one of the 20th-century philosophers most quoted by architects. But is his opinion still valid today, now that mass housing estates are so well established worldwide? Highly relevant, believes Adam Sharr: only if building remains closely linked to living, and therefore with the experience and perception of each individual, does it become possible to create houses that become homes.

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THE LIFE OF THE "USER"

For a long time the 'user' in architecture has been regarded as a part of an anonymous mass whose statistically determined needs had to be fulfilled. Adrian Forty says this has changed: occupants have always played an active part in producing, occupying and destroying buildings. In the meantime, even architects and housing associations are taking this fact to heart.

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MONTFOORT

Ten terraced houses, representing millions of others in the Netherlands, are being transformed into 'active houses' over the next few months. Anneke Bokern has set out for Montfoort to speak to the residents about the experiences and expectations they associate with the buildings.

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PARIS

Is there a future for France's banlieues? If so, it may be in Paris' 17th arrondissement. Frédéric Druot and Lacaton & Vassal have refurbished the Tour Bois-le-Prêtre, a 1959 residential building, to meet the needs of the 21st century. Karine Dana was there for Daylight/Architecture and found a building that not only offers good prospects for the future but also one that preserves its past.

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HAMBURG

This refurbished semi-detached house in Hamburg is a pioneer of future home design: the Lichtaktiv Haus in Hamburg's Wilhelmsburg district is carbon neutral, open to daylight and fresh air - and designed to accommodate the lifestyles of future generations. Anneke Bokern has sampled living in the house and questioned neighbours on traditions and the changing needs in regard of housing.



TIME BASED ARCHITECTURE AND MIXED USE

Buildings that are intended to last must be able to adapt – this seemingly paradoxical theory has been confirmed repeatedly in the past. In his article, Jasper van Zwol analyses the force stemming from society that expresses a need for adaptable buildings, and the design strategies applied to achieve these.

EVEN BAD NEWS CAN BE BENEFICIAL

What do we really know about the true needs of a building's occupants? Still far too little is what Bill Bordass and Fionn Stevenson from the British Usable Buildings Trust think. The organisation has set itself the task of learning more about a building's suitability for daily use and raising the awareness of clients and planners for true needs.

MULTIFACETED LIVING

The social ties in our society are weakening, lifestyles are changing. However, as Günter Pfeifer puts it, advances in home building came to a standstill more than 50 years ago. In his report, he describes possible ways out of this dilemma. The most important aspect: investors and planners should rethink and respond to the need for new housing types instead of constantly turning a blind eye.



A LONG WAY TO GO

By Jakob Schoof

Buildings need to contribute more to the well-being of humans and of the environment than they do today. They need to do so in the long term, far beyond the payback periods of investors and the time horizon of most planners. For humans, as for buildings, the ultimate goal is a long, good and healthy life.

This seemingly simple credo, however, is often obscured and contradicted by other perceived needs – such as to make money. It seems that our society does not even know – or agree on – what makes a 'good' life: Wealth and power? The paraphernalia of the everyday? Or harmony with the world around us, health and a balanced inner self?

The same applies to buildings: What constitutes their quality? A good profit in a short time? A visually exciting design? A low energy demand? Or their everyday usability, contribution to well-being and adaptivity to everyday needs?

We – that is planners, builders and manufacturers, but also clients and everyone inhabiting buildings – need more understanding of life cycles, both of humans and of buildings. We need to learn how different life cycles are interlinked. Life needs to shape building practices, just as buildings today shape life. Remember Churchill's verdict, "First we shape our buildings, then they shape us."

What – and who – makes a house a home? The architect with his bricks and glass, or the inhabitant with his 'everyday things' and his feelings and memories? Heidegger argued that the value of a jar of water is not in the jar itself, but in what it contains.

The same goes for buildings, they have to provide the framework for what goes on inside them, and be a natural part of what goes on around them, including the life cycles of nature. A critical review of planning strategies, benchmarks and criteria is needed. Buildings no longer have to be designed (and never had to, anyway) for the moment they are handed over to the client, but for their operation. How will they contribute to human health and environmental well-being after they are handed over? How will they be adapted and re-used in later

periods of their life? How can we make sure that they are still cherished in 50 years' time? In the wake of the sustainability discussion, new methods and tools have emerged that promise solutions for the life cycle issue. Scientific life cycle analysis, that measures all environmental effects of buildings during their lifetime, is one of them.

But the current focus on benchmarking and measuring also comes with risks: that of losing out on the immeasurable qualities of architecture and life; and that of scientifically justifying the status quo by obscuring it with figures and 'green' rhetoric, but not changing anything. We have to acknowledge the limitations of benchmarking. We have to avoid one-sided, biased planning perspectives, and instead take life as a whole on board. We have to create life-supporting, not just environmentally-friendly buildings. Buildings that are sensual, not just visual – especially for everyday purposes.

We can argue that we have been at this point before. But there is no simple and nostalgic way back to classical architecture. The world has changed tremendously around us, new demands and challenges have emerged at a tremendous speed recently. We will therefore have to combine the best of the past with the best of new approaches. And we have to learn how to make informed decisions about what actually is 'the best' of the two worlds, both for humans and for the environment.

We have only just started to learn. There is still a long way to go.

Michael Wesely
Still life (January 25 – February 1, 2011) 2011



“Imperfection is in some way essential to all that we know of life. It is the sign of life in a mortal body, that is to say, of a state of process and change. Nothing that lives is, or can be, rigidly perfect; part of it is decaying, part nascent... And in all things that live there are certain irregularities and deficiencies, which are not only signs of life but sources of beauty.”

John Ruskin in: *The Lamp of Beauty: Writings On Art* by John Ruskin, 1980

LEARN-
NING
FROM
LIFE



DWELLING IN TIME

In our times of accelerating speed, architecture has become obsessed with newness and contemporaneity, appealing to the eye but failing to create emotions and atmospheres. It is therefore time to reconsider the alternative tradition of modern architecture: buildings that appeal to all the senses, that show concern for materials and textures, and that, by accepting life with all its imperfections, are intrinsically rooted in time.

By Juhani Pallasmaa
Photography by Michael Wesely

"It is as though space, cognizant [...] of its inferiority to time, answers it with the only property time doesn't possess: with beauty."
Joseph Brodsky¹

MAN-MADE SETTINGS and structures, both material and mental, transform homogenous, measureless and meaningless 'natural' space into distinct places that project a cultural narrative and significance. 'Wild' space is domesticated by architecture into cultural space that articulates and directs our behaviour, thoughts and feelings. Architectural space mediates between the natural and the man-made, immensity and intimacy, collectivity and individuality, past and future. As we settle in "the flesh of the world", to use a notion by Maurice Merleau-Ponty, we become part of the space and the space becomes part of us. "I am the space where I am," as the poet Noël Arnaud exclaims².

We also need to 'tame' time and settle ourselves in its continuum, in the same way as we set ourselves to dwell in space. Karsten Harries, philosopher, asserts succinctly: "Architecture is not only about domesticating space, it is also a deep defence against the terror of time. The language of beauty is essentially the language of timeless reality"³. The measureless and endless time of the universe is a humanly intolerable condition; the dimension of time also needs to be 'domesticated' into human measures and meanings.

Time is the most mysterious of the dimensions of the physical world. St. Augustine made an appropriate remark on the fundamental mystery of time: "What is time? If people do not ask me what time is, I know. If they ask me what it is, then I do not know"⁴. There are vastly differing scales of time, such as cosmological time,

geological time, evolutionary time, cultural time, biological time, atomic time, etc. We can also think of an architectural time that mediates between these various time scales, and concretises the time range that we occupy as combined biological and cultural beings.

ARCHITECTURE IN TIMES OF ACCELERATED SPEED

Architecture manipulates and stores time, it slows down, fragments, halts, and even reverses time. In today's world of constant hurry, time has gained added speed, and even architecture tends to contribute to this dizzying sense of acceleration. The temporal narrative of architecture is thought-provokingly similar to literary and cinematic modes of temporal narration, although rarely thought in that manner.

In the same way that we share the flesh of the world, we also share its rhythms and durations. The modern world is obsessed with newness and contemporaneity; our objects and buildings are usually intended to stay new forever. We have pushed the realities of ageing and death to the periphery of our consciousness and turned our backs to the domain of the dead. In our unconscious fear of decay, we wish to eliminate traces of age from our bodies and, similarly, suppress signs of time and wear in our objects and settings.

We increasingly use materials that do not show traces of time. At the same time, we experience contemporary settings as alienating or even necrophilic, and enjoy the cities, towns and villages of old cultures because of their humane warmth, and haptic sense of history, time and lived life mediated by their layered patina. Our own settings of life tend to be

dominated by the sense of vision, whereas the historical townscapes that we love are experienced through hearing, touch and smell as much as through vision.

MATERIAL IMAGINATION AND ATMOSPHERE

We have an unexpected capacity to grasp atmospheres of places and spaces. As we enter an urban space, landscape or room, we grasp its essence and qualities in a split second before we have noticed or understood any of its details. In fact, our grasp of environmental entities seems to progress from the whole to the parts, not the other way round as we are usually taught. Through the past century, modern architecture has aimed at the perfection of spatial volumes, forms and details, while the overall atmosphere has not been consciously considered. The element of time and duration, combined with a sense of life is clearly more attached to atmospheric and peripheral unconscious experiences than to the focused and conscious perception of form.

Gaston Bachelard distinguishes between "formal imagination" and "material imagination", and argues that images arising from matter have a stronger

"Architecture is not only about domesticating space, it is also a deep defence against the terror of time. The language of beauty is essentially the language of timeless reality."

Karsten Harries, "Building and the Terror of Time", in: *Perspecta: The Yale Architectural Journal*, issue 19, 1982

emotive impact than images of form⁵. It is quite evident that historical architecture the world over emphasises experiences of materials, textures and the alternation of shadow and light, whereas modern architecture prefers geometrically pure and frequently white and smooth forms. The first architecture promotes tactility and mediates a wealth of messages of time, whereas the second is dominated by vision and tends to regard traces of use and time as defects or failures. This is the decisive difference between an architecture that welcomes traces of use, and another approach that wishes to stay unchanged and untouched by time and wear.

The familiar white modernist aesthetic contains strong moralising undertones. In Le Corbusier's words, "whiteness serves the eye of truth"⁶. The moral implications of whiteness are rather surprisingly expressed in his statement: "Whiteness is extremely moral. Suppose there were a decree requiring all rooms in Paris to be given a lack of whitewash. I maintain that that would be a police task of real stature and a manifestation of high morality, the sign of a great people"⁷.

Modernity at large has reflected this ideal of purity and reduction, whereas "The Other Tradition of Modern Architecture", to use a notion of Colin St John Wilson⁸, has been engaged in an architecture of materiality and richness of textural and formal expressions, as well as a rich variation of illumination and shadow. As a consequence, the latter architecture tends to project atmospheric qualities as opposed to the formal ideals and perfection of the first.

THE POLYPHONY OF THE SENSES

In a lecture given in 1936, Erik Gunnar Asplund, Alvar Aalto's close friend and mentor, motivated the change of ideals that took place among many of the leading Nordic architects in the mid-1930s: "The idea that only design, which is compre-

hended visually, can be art is a narrow conception. No, everything grasped by our other senses through our whole human consciousness and which has the capacity to communicate desire, pleasure, or emotions can also be art"⁹.

Merleau-Ponty points out this essential integration of the sensory realms: "My perception is not a sum of visual, tactile and audible givens: I perceive in a total way with my whole being: I grasp a unique structure of the thing, a unique way of being, which speaks to all my senses at once"¹⁰. The philosopher seems to be de-

"... at its most genuine, the architectural impulse seems connected to a longing for communication and commemoration, a longing to declare ourselves to the world through a register other than words, through the language of objects, colours and bricks: an ambition to let others know who we are – and, in the process, to remind ourselves")

Alain de Botton in:
The Architecture of Happiness, 2006

scribing here an overarching atmospheric experience rather than a perception of form. Gaston Bachelard calls this fused sensory interaction "the polyphony of the senses"¹¹. Our buildings occupy the same "flesh of the world" as we ourselves occupy as embodied beings. Every building has its auditive, haptic, olfactory and even gustatory qualities that give the visual perception its sense of fullness and life, in the same way that a masterful painting projects sensations of full sensuous life. Just think of the sensations of a warm and moist breeze, joyful sounds and smells of

plants and seaweed magically conveyed by a Henri Matisse painting of an open balcony door in Nice.

As a consequence of its predominantly conceptual and formal ideals, the architecture of our time tends to create settings for the eye that seem to originate in a single moment of time and evoke the experiences of flattened temporality and absence of life. Vision and immateriality reinforce the feeling of the present tense, whereas materiality and haptic experiences evoke an awareness of temporal depth and a continuum of time. The inevitable processes of ageing, weathering and wear are not usually considered as conscious and positive elements in design, as the architectural artefact is conceived to exist in a timeless space, an idealised and artificial condition separated from the experiential reality of time and life.

TOWARDS AN ARCHITECTURE OF IMPERFECTION

The architecture of the modern era has aspired to evoke an air of agelessness and of a perpetual present tense. The ideals of perfection and completeness have further detached the architectural object from the realities of time and use. As a consequence of the idea of timeless perfection, our buildings have become vulnerable to the negative effects of time, the revenge of time, as it were. Instead of offering positive qualities of vintage and authority, time and use attack our buildings negatively and destructively.

During the past decades, novelty has become an obsession, an independent artistic criteria and value. Yet, true artistic quality arises from other properties than mere novelty.

The aspiration for abstraction and perfection tends to lead the attention to the world of immaterial ideas, whereas matter, weathering and decay strengthen the experiences of causality, time and reality. There is a fundamental difference

Michael Wesely: Stilleben (Still Life), 2009/2010

Time is the essential, constantly recurring dimension in Michael Wesely's photographs. He uses exposure times ranging from a few minutes up to several years to make things visible that could never normally be captured in a single glimpse: the process of growth and decay, cycles of nature, the trajectory of the sun across the sky, or those minute movements made over time by people and objects

Below Still life (14. – 22.6.2008) 2008

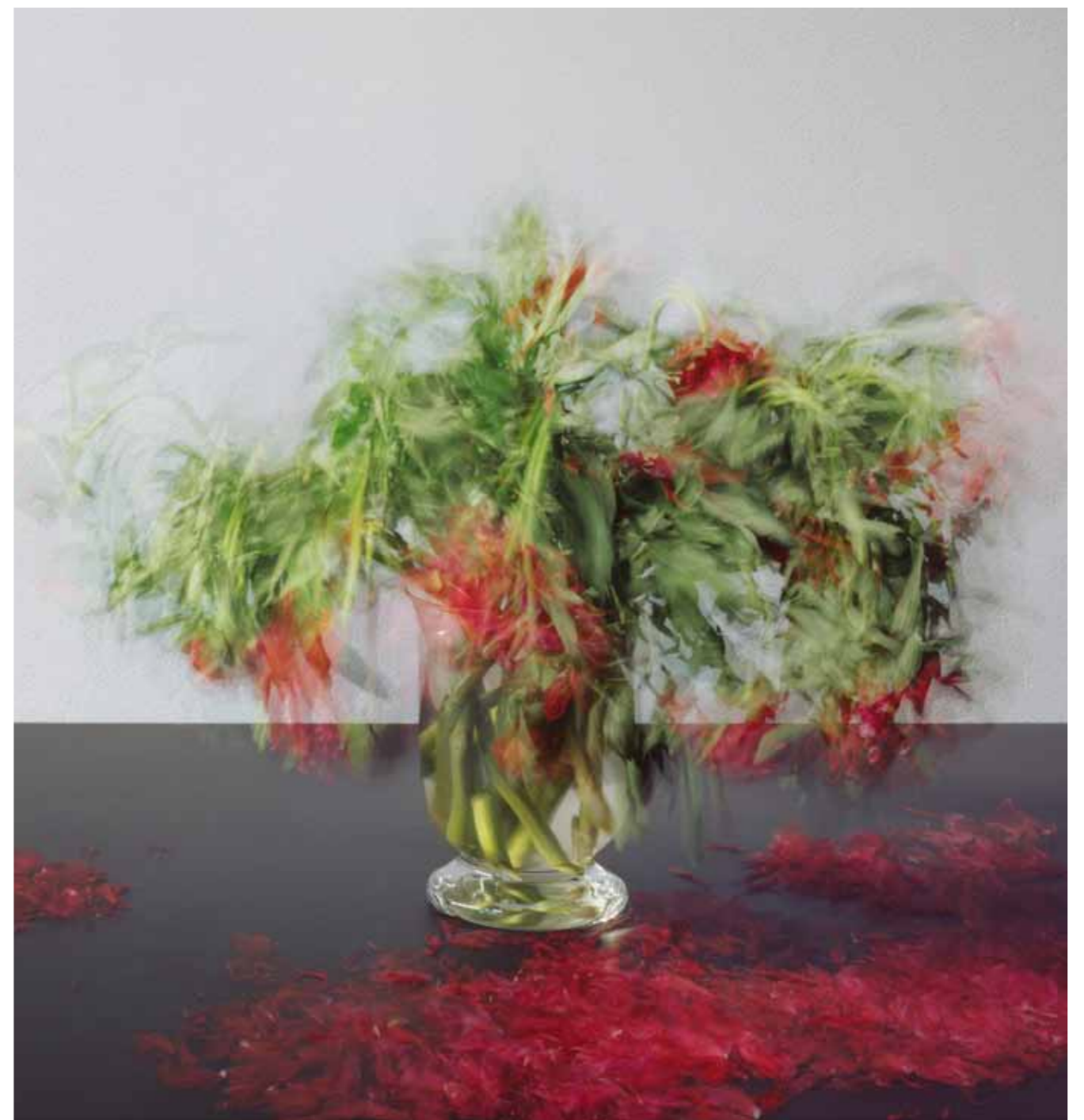
that themselves seem to be static. Michael Wesely shot to international fame when he recorded the construction of the high-rise buildings at Potsdamer Platz in Berlin in photographs using an exposure time of more than two years. Wesely's still lifes of flowers and fruit give the centuries-old subject a new dimension, lending expression to the original intention of the genre. The still lifes of the Golden

Age of Dutch painting already see themselves as symbols of vanity, as allegories for the transitoriness of all things earthly. As it condenses to a single image, the insidious but ubiquitous decay depicted in Wesely's flower pictures develops a completely unexpected dynamism.

Michael Wesely (born 1963) studied at the Bavarian State Institute of Photography and at the Acad-

emy of Fine Arts in Munich, and now lives and works as a photographer in Berlin. His work has been (and is) exhibited at the Museum of Modern Art in New York, the Kunstmuseum Bonn and the Gemeentemuseum in The Hague, among others.

© Michael Wesely/ VG Bild-Kunst Bonn, 2011 courtesy Nusser & Baumgart, Munich





Still life (3.4. – 13.4.2007)
2007

"The architecture of the modern era has aspired to evoke an air of agelessness and of a perpetual present tense. [...] As a consequence of the idea of timeless perfection, our buildings have become vulnerable to the negative effects of time, the revenge of time, as it were."

Juhani Pallasmaa

between an image of idealised human existence and our real, lived condition. Real life is always 'impure' and 'messy', and profound architecture wisely provides a margin for this very impurity of life.

John Ruskin believed that "imperfection is in some way essential to all that we know of life. It is the sign of life in a mortal body, that is to say, of a state of process and change. Nothing that lives is, or can be, rigidly perfect; part of it is decaying, part nascent... And in all things that live there are certain irregularities and deficiencies, which are not only signs of life but sources of beauty"¹².

Alvar Aalto elaborated Ruskin's idea further when he spoke of "the human error" and criticised the quest for absolute truth and perfection: "One might say that the human error has always been part of architecture. In a deeper sense, it has even been indispensable to making it possible for buildings to fully express the richness and positive values of life"¹³.

Materiality, erosion and destruction have become favoured subject matters of contemporary art from Arte Povera and Gordon Matta-Clark to Anselm Kiefer, the films of Andrey Tarkovsky, and today's countless works based on images and processes of matter. "Destroying and constructing are equal in importance, and we must have souls for one and the other..." Paul Valéry states,

and, indeed, scenes of destruction and decay are thought-provokingly popular in today's art¹⁴. The installation art of Jannis Kounellis expresses dreams and memories of rusting steel, coal and burlap, whereas Richard Serra's and Eduardo Chillida's authoritative masses of forged and rolled iron awaken bodily experiences of weight and gravity. These works address directly our skeletal and muscular systems; they are communication from the muscles of the sculptor to those of the viewer. The works of beeswax, pollen and milk by Wolfgang Laib invoke images of spirituality, ritual and ecological concerns, whereas Andy Goldsworthy and Nils-Udo fuse nature and art through using materials, processes, and contexts of nature in their 'biophilic' art works.

The ever more pressing requirements for ecologically acceptable values and life styles are certainly suggesting a new architecture that is not only conscious of materials, processes and temporal cycles, but turn them into ingredients of a new beauty. As Joseph Brodsky suggests with the assurance of great poetry: "The purpose of evolution, believe it or not, is beauty"¹⁵.

Juhani Pallasmaa has worked continuously as a designer, writer and educator since the 1960s. After leaving his position as Professor and Dean at the Helsinki University of Technology in 1997, he has held Visiting Professor positions in various universities internationally, currently at the Catholic University of America in Washington D.C. He publishes widely, mainly on the implications of human embodiment in art and architecture, and writes essays on individual artists and architects. His recent publications include *The Embodied Image*, (London 2011), *The Thinking Hand*, (London 2009), *The Eyes of the Skin* (London 1995, 2005), *The Architecture of Image: existential space in cinema* (Helsinki, 2001, 2005).

Notes:

1. *Joseph Brodsky*, *Watermark*, Penguin Books, London, 1997, p. 44.
2. As quoted in Gaston Bachelard, *The Poetics of Space*, Beacon Press, Boston, 1969, p. 137.
3. *Karsten Harries*, "Building and the Terror of Time", *Perspecta: The Yale Architectural Journal*, issue 19, The MIT Press, Cambridge, Massachusetts, 1982.
4. As quoted in Jorge Luis Borges, *This Craft of Verse*, Harvard University Press, Cambridge, Massachusetts and London, England, 2000, p. 19.
5. *Gaston Bachelard*, *Water and Dreams: An Essay on the Imagination of Matter*, The Pegasus Foundation, Dallas, Texas, 1983, p. 1.
6. As quoted in Mohsen Mostafavi and David Leatherbarrow, *On Weathering*, The MIT Press, Cambridge, Massachusetts, 1993, p. 76.
7. *Le Corbusier*, *L'art décoratif d'aujourd'hui*, Paris, Edition G. Grès et Cie, 1925, p. 192.
8. *Colin St John Wilson*, *The Other Tradition of Modern Architecture: The uncompleted project*, Black Dog Publishing, London, 2007.
9. *Erik Gunnar Asplund*, "Konst och Teknik" [*Art and Technology*]. *Byggnästaren 1936*. As quoted in Stuart Wrede, *The Architecture of Erik Gunnar Asplund*. The MIT Press, Cambridge, Massachusetts, 1980, p. 153.
10. *Maurice Merleau-Ponty*, "The Film and the New Psychology", in *Maurice Merleau-Ponty, Sense and Non-Sense*, Northwestern University Press, Evanston, Ill, 1964, p. 48.
11. *Gaston Bachelard*, *The Poetics of Reverie*, Beacon Press, Boston, 1971, p. 6.
12. *The Lamp of Beauty: Writings On Art* by John Ruskin, Joan Evans, editor, Cornell University Press, Ithaca. N.Y., 1980, p. 238.
13. *Alvar Aalto*, "The Human Error", in Göran Schildt, editor, *Alvar Aalto in His Own Words*, Otava Publishers, Helsinki, 1997, p. 281.
14. *Paul Valéry*, "Eupalinos or the Architect", *Paul Valéry Dialogues*, Pantheon Books, New York, 1956, p. 70.
15. *Joseph Brodsky*, "An Immodest Proposal", *On Grief and Reason*, Farrar, Straus and Giroux, New York, 1997, p. 207.

Andreas Gefeller: Supervisions, 2002–2005

To all appearances, Andreas Gefeller's photographs in his series 'Supervisions' show a bird's eye view of human living areas and workspaces. But appearances are deceptive: the 'impossible' perspectives shown here are actually made up of hundreds of individual photographs that coalesce to form a big patchwork-like picture. Humans are not visible on any of the photographs and yet they have unmistakably left their mark on all. Their classification and sign

Below Untitled (Meadow 2) Düsseldorf, 2002

systems together with the marks of daily wear-and-tear attest to the almost unlimited inventiveness of our species when it comes to subduing our environment and bending it to our own ideas of usefulness.

Andreas Gefeller (*1970) studied photography at the University of Essen and was appointed to the German Photographic Academy in 2001. In 2004, he was awarded the art prize of the city of Nordhorn and in 2005, received the LeadA-

ward Hamburg. In 2010, Andreas Gefeller was given a scholarship as part of the series 'European Eyes on Japan'. Four books of photographs by Andreas Gefeller have already been published: 'Soma' (2002), 'Supervisions' (2005), 'Andreas Gefeller – Photographs' (2009) and 'The Japan Series' (2011).

All images courtesy of Thomas Rehbein Gallery Cologne and Hasted Kraeutler New York



LIVING WITH MARTIN HEIDEGGER

Contemporary Western societies have become accustomed to mass-produced housing designed by distant professionals who do not know who the inhabitants will be. In the 1950s, the philosopher Martin Heidegger asked whether this kind of housing can ever make a satisfactory home. His questions about building and dwelling are still relevant today.

By Adam Sharr
Photography by Andreas Gefeller

ON 6 AUGUST 1951, the philosopher Martin Heidegger spoke to an audience of architects and engineers at a conference called 'Man and Space' in Darmstadt that had been convened to discuss the post-war Wohnungsfrage, the so-called 'dwelling question'. Millions of people remained homeless or dispossessed following the destructions of war and the advent of the Cold War, and the conference had been organised to discuss the problems of rebuilding. In the following sixty years, the philosopher's talk – published as the essay *Bauen Wohnen Denken* (Building Dwelling Thinking) – has become highly influential among architects and architectural theorists.

BUILDING AS DWELLING, AND DWELLING AS BUILDING

Heidegger's talk seems as strange now as it must have seemed in 1951. It is curiously archaic on first encounter, appealing to etymology – to the old meanings of everyday words – for supposedly timeless insights into the notion of dwelling and its practices. For Heidegger, language showed that the words for 'building' and 'dwelling' – 'bauen' and 'wohnen' – shared the same root. Importantly, he claimed, they used to be one-and-the-same idea, two sides of the same coin. 'Building', he argued, as both making a home and caring for the land (in German, a farmer is also 'der Bauer'), had once been united with 'dwelling' through the rites and rituals of everyday life. It was perfectly natural to simply extend a house if a new child meant that more room was needed, to build with the materials to hand, to inscribe the small places of the house with personal details and the memories of life. Building and dwelling were united, for Heidegger,

in the immediate presence of materials and the beliefs, values and habits associated with them (which he summarised idiosyncratically as the 'fourfold' of 'earth, sky, divinities and mortals'). Only in recent times, Heidegger claimed, have experts, legislation and guidance separated 'building' from 'dwelling', professionalising building with industrial processes and specialist language, imagining dwelling as a scientific problem to be quantified and contained.

The philosopher concluded his talk with the example of a 200-year-old Black Forest farmhouse. Its residents once lived in intimate connection with the locality, he argued, their lives measured out in festivals and seasons, funerals and births. The house shaped the practices of daily life – from the meaningful to the banal – and was also shaped by them. He emphasised the role of the inhabitants: the house was planned by people's lives, not just in the initial 'design' but also through the on-going micro-activities of daily life. A dwelling determines how life takes place, he suggested, but it is also itself determined by the activities that take place there. The house was understood sensually, manually and atmospherically, not calculated mathematically. People do not primarily know their house by floor areas and window dimensions, he implied, but instead by what the handrails and the door handles feel like to touch, how shadows track across the room and how it feels to sit by the fire. He thus challenged the prevailing scientific approach to the 'dwelling problem', which preferred to talk of housing in terms of numbers: rooms, dimensions, areas and production figures. By emphasising sizes and quantities, he claimed, architects and

"My dwelling, my house: this is the greatest personal challenge that architecture can present. Strictly speaking, it is not even architecture that excites and satisfies me so much about it, but the conglomerate of my own traces in it."

Wolfgang Iser in:
Das Denken des Leibes, 2000

engineers were missing the real questions of dwelling, misconceiving what a house could or should be. Indeed, the philosopher was careful to avoid the word 'architecture' – its meaning loaded with the fine judgements of connoisseurship and the traditions of a classical past – preferring instead to emphasise that housing should again be conceived in terms of a 'building' which is also simultaneously imagined as 'dwelling'.

BUILDING AS INDUSTRY

Heidegger's challenge to the 'construction industry' – not only to industry practices but also to the very idea of industrialised building – remains just as relevant today. Perhaps more so, particularly where development is motivated largely by profit and fuelled by private equity. Words like 'property' and 'development' – and, indeed, 'housing' and 'user' – speak of people being contained, rather than imagined as inhabitants in intimate harmony with their situation. Rarely do designers and promoters of housing know who the residents of their designs will be. Inhabitants are classified generically – as the 'elderly' or 'mobility-impaired', or with acronyms like 'yuppies' ('young and upwardly mobile') or 'dinkys' ('dual income, no kids yet') – their needs quantified and appraised insofar as sales or letting will be assured. The marketing concept is often worked-up alongside the design concept so that flats and houses can be promoted to the appropriate person-types as 'executive', 'luxury' or 'affordable'. Focus groups, organised by developers to ask certain questions of typical people in order to determine what they want, are used to produce an image of home that designers are instructed to reproduce.

In Britain, for example, this often means a house with a 'traditional' exterior – brick for its connotations of security and longevity (although often as cladding over a timber or lightweight steel frame) – and a 'modern' interior – kitchens with shiny work surfaces and the latest appliances, and rooms equipped with integral Cable TV, broadband and sound systems. Thus, a house becomes a product – a 'lifestyle' for sale.

Of course, plenty of people in the construction industry recognise that there are problems associated with industrialised housing production for unknown users. The notion of 'life-cycle homes' is promoted, although it is often interpreted in limited ways: as provision for break-out zones in floors to allow the later installation of a disabled lift, or level thresholds for easy access by the infirm, or extra power sockets in a child's bedroom so that it can be adapted later into a 'home office'. There are also plenty of professionals who recognise that the mass-production of elements or rooms (favoured because they speed-up construction and ensure the rapid repayment of the developer's loan capital) can be rather alienating. Technology, here, is seen to offer a potential solution, where computer-powered manufacturing offers the tantalising possibility of 'mass customisation' – the systematic production of one-off variants – instead of the endless reproduction of the same. Heidegger, though, would see these industry solutions, however well-meaning, as continuing to exacerbate the problem, only perpetuating the distance between 'dwelling' and 'building'.

There are, of course, problems with Heidegger's way of thinking. In more mobile societies, few people stay in one place

Untitled (Street)
Hongkong, 2004/2006



"Although it is hard to quantify, people know from experience that a sense of being at home comes from intimacy, familiarity and from the intangible spirit of the place.."

Adam Sharr

for their lifetime, let alone maintain long-standing familial roots in a particular location. Rarely do people have the time, the money or the inclination to build for themselves; building is simply not something that most people feel empowered to do. Moreover, for some, the ritual aspects of domesticity are boring or distasteful, always bound-up with the idea of the heterosexual family of husband, wife and 2.4 children. Critics of Heidegger would even claim that problems arise when people feel rooted somewhere – because, they argue, rootedness can encourage intransigence, intolerance, xenophobia and ultimately even persecution.

But the centring power of home cannot be denied. Although it is hard to quantify, people know from experience that a sense of being at home comes from intimacy, familiarity and from the intangible spirit of the place. The homes that are the most desirable – and also the most sellable – are those whose atmospheres feel 'just right'. As soon as one tries to analyse these qualities, however, they seem to slip away. They cannot be easily measured or pasted into a cost-benefit spreadsheet. At a time when the rhetoric of sustainability is widespread, the idea of a home that people want to care for over a long period of time seems entirely appropriate – even if people's ways of life may now be rather different from those practised in the idealised Black Forest farmhouse that Heidegger celebrated.

DESIGNERS, INHABITANTS, PLACES

So how can the professional idea of housing be reconciled with the Heideggerian notion of dwelling and building? Is it possible to escape the mass-production of housing for anonymous 'users'? Can standardised housing ever really be de-

sirable? Can thinking about 'life-cycle homes' become more intimately associated with the micro-practices of daily life? Indeed, can anyone ever really equip themselves to design for someone else? There are, of course, no easy answers. It seems, though, that we need designers and developers who are prepared to think of themselves as enablers rather than experts – prepared to re-design professional practices so that inhabitants can be involved early-on in construction. The idea of a building being 'completed' on opening day seems especially unhelpful. This is, surely, the beginning rather than the finishing of a home. If designers are able to think in this way, then maybe they can make places that are specific but not prescriptive, that invite and encourage inhabitation in every detail, that help people to see the potential in the places around them, that allow them to choreograph their 'stuff' to suit and shape their lives. Perhaps we can redesign schedules of accommodation to detail places rather than areas. Maybe the tagging of rooms with functional labels – like 'dining room' or 'sitting room' – is unhelpful, and a more fluid, overlaid conception of space has richer potential. Surely, the calculation of lighting, heating and ventilation for consistent evenness serves to eliminate character and neutralise atmosphere? What about designing technologies that are less 'background' and instead more engaging and life-affirming? Few people feel as fondly about a radiator, for example, as they do about a real fire.

In the end – as I argued in my book Heidegger's Hut – perhaps a house can become a dwelling by framing in rich and multiple ways its inhabitants and their relationships, its equipment, its social context, the theatre of passers-by, the sun and tracking shadows, glimpses of the sky, the breeze and wind, the rain and snow, flora and fauna. It might be neither too big nor unnecessarily flexible, instead helping its occupants to configure intensities of situation. It might encourage reflective moments thought at a slower pace. Configuring daily, weekly and seasonal routines, such a home could become a datum, capable of dignifying and sustaining any

life, attuned to the commonplace closely watched.

In concluding *Building Dwelling Thinking*, Heidegger was cautious not to offer 'recipes for design', instead asking that his audience thought through his ideas for themselves. Indeed, perhaps the only way to think through his provocations about 'building' and 'dwelling' is to live them, to draw from personal experiences of everyday life when attempting to design on behalf of others. While we should recognise that his philosophy has its problems, perhaps there remains some merit in trying to live, for a while, with Martin Heidegger.

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Untitled (Meadow 1)
Düsseldorf, 2002



THE LIFE OF 'THE USER'

Once much discussed, then nearly forgotten, and eventually rediscovered, the term 'user' had many meanings in 20th- and 21st- century architecture. From an anonymous target group, 'users' have evolved into creative agents in the appropriation – and often even the design – of buildings.

By Adrian Forty
Photography by Andreas Gefeller

IN THE MID-TWENTIETH century, a new term appeared in architects' vocabulary – the 'user'. Distinct from other existing and, at first sight, synonymous words – 'inhabitants', 'occupants', 'clients' – the 'user' designated a novel relationship between architects and society. The immediate circumstances that gave rise to this new term were the large public building programmes undertaken in all Western countries following the Second World War, as houses, schools and hospitals were constructed on a scale never seen before. Since those for whom these buildings were intended could rarely be identified in person, architects had to form some notion of their likely needs if the buildings were to stand any chance of fulfilling their purposes, both practical and ideological. The 'user' satisfied this requirement. Yet the 'user' was always a fiction, an abstraction necessary to architects so as to be able to discharge their duty to the state that employed them and, indirectly, to the public for whom the buildings were built. The term came under attack in the 1970s, and as state investment in large building programmes dried up, it lost its purpose and went out of fashion. In the 1990s, however, the 'user' returned to architectural discourse, serving an entirely different purpose – no longer to sustain architectural practice, but rather to criticise it.

THE ARCHITECT'S SERVANT
Something of the excitement and optimism surrounding interest in the 'user' in the post-war years is captured by the announcement in 1961 of an English public sector architect, Henry Swain, that "to evolve techniques to help us to analyse the needs of the users of build-

ings is the most urgent task of our profession". Swain, like many other architects of his time, believed that careful and systematic analysis of user needs would make it possible to design buildings that would not only better accommodate, and so gratify, their recipients, but also liberate architects from time-worn formulae and conventions of design. Only by being truly responsive to the 'user' might architecture fulfil its aspiration to realise a better life.

Closely associated with the analysis of user needs was an anxiety about obsolescence, and the realisation that user needs often changed more rapidly than buildings could be adapted. Demographic changes – such as changes in household size – could render the best-prepared design unsuitable, leaving a stock of buildings that would not fit the social needs of the future. Recognising that not all uses could be predicted at the moment of design, architects looked at ways of introducing elements of indeterminacy into their designs to allow for growth and change. If close attention to the 'user' stimulated greater specificity in design, over-specificity could render buildings useless, prompting architects to introduce another architectural buzzword of the post-war era, 'flexibility'. 'Flexibility' was the antidote to the overly prescriptive designs that attention to the user could lead to, and became that term's necessary companion. Flexibility could take various forms. It could be achieved either by redundancy, or as Rem Koolhaas writes, "the creation of a margin – excess capacity that enables different and even opposite interpretations and uses"; or it could be achieved by technical means, incorporating removable (or

movable) walls or floors, so that the internal divisions could be modified. More sophisticated variants include cybernetic systems responsive to the patterns of use in the building, such as was envisaged in Cedric Price's 'Fun Palace' project.

Objections to the 'user' came primarily from outside the architectural profession, while the critique of 'flexibility' was generated by architects themselves. Although the 'user' was born out of the best and most generous humanistic intentions, to create a better life, it came under attack in the 1970s as one of the causes of the dehumanisation of modern life. It was the way in which the concept

"Flexibility as such should not be overemphasised or turned into yet another absolute, a new abstract whim. [...] We must beware of the glove that fits all hands, and therefore becomes no hand."

Aldo van Eyck in: Forum, vol.16, no.2, 1962

of the 'user' was employed, stripping people of individuality and giving them a spurious unity, that made the French philosopher Henri Lefebvre suspicious of it. In his book of 1974, *The Production of Space*, he wrote "The word 'user' ... has something vague – and vaguely suspect about it. 'User of what?' one tends to wonder. ... The user's space is lived - not represented (or conceived)". As far as Lefebvre was concerned, the category of the 'user' was a particular device by which modern societies, having deprived their members





of the means to experience space as a lived in phenomenon (by turning it into a mental abstraction or 'representation'), further insulted them by making them unable to recognise themselves within a space by turning them too into abstractions.

Yet, as is clear from even this short quotation, Lefebvre was not entirely negative about the 'user', for he was excited by the possibility of users exercising their right to inhabit space, to make it truly 'lived in'. There were many ways in which this might happen, and one of those that Lefebvre referred to was the early Christians' co-option of Roman basilicas for use as churches. As he put it, he was "for appropriation and for use, ... and against exchange and domination" or, in other words, against control by the forces of the market and the agencies of capital. It was precisely this sense of the 'user', with its disruptive potential, that was to become attractive in architectural circles towards the end of the twentieth century.

FLEXIBILITY VERSUS FORMLESSNESS

Although widely promoted in the 1950s and 1960s and the object of much research, 'flexibility', as a means by which buildings might accommodate unforeseen changes in user needs came under surprisingly strong criticism from architects themselves. The main objection was that attempts to arrive at spaces that were sufficiently indeterminate to permit a variety of uses often resulted in something so bland and neutral as to be entirely lacking in quality. As the Dutch architect Aldo van Eyck remarked, 'We must beware of the glove that fits all hands, and therefore becomes no hand'. Similar objections came from another Dutch architect, Herman Hertzberger, in the early 1960s: "Flexibility signifies – since there is no single solution that is preferable to all others – the absolute denial of a fixed, clear standpoint. The flexible plan starts

out from the certainty that the correct solution to the problem does not exist, because the problem requiring solution is in a permanent state of flux, i.e. it is always temporary. Flexibility ... only has to do with uncertainty; with not daring to commit oneself, and therefore with refusing to accept the responsibility that is inevitably bound up with each and every action that one takes".

But although Hertzberger was so critical of 'flexibility', he was nonetheless committed to producing buildings whose design did not irrevocably fix all future actions and use. His solution was what he called 'polyvalent' forms – "a form that without changing itself, can be used for every purpose and which, with minimal flexibility, allows an optimal solution". A polyvalent space was one in which people might discover an alternative use, whether or not such a use had been foreseen by the architect; it was about creating opportunities for imaginative reinterpretation by the building's occupants. Such an approach threw the responsibility onto users, who were to be encouraged to transform what they had been given, or even, more radically, to subvert the purposes planned by the architect. Hertzberger's designs for schools, housing, old people's homes, offices, and student housing epitomised this strategy that left it to the users to decide the purposes of any particular space.

The opportunity for the user to become a creative agent in architecture, anticipated by Hertzberger, was to be the basis for the return of the 'user' into architectural discourse in the 1990s. This development should be seen in relation to a general turn, in all art practices, towards giving more attention to the way people receive a work of art, and less to the meanings intended by their creators. In literature, the act of reading has been recognised as no less important than that of writing; in cinema, the viewer is

"Flexibility does not necessarily contribute to a better functioning of things (for flexibility can never produce the best imaginable results for a given situation)."

Herman Hertzberger 1967

"Flexibility signifies – since there is no single solution that is preferable to all others – the absolute denial of a fixed, clear-cut standpoint. The flexible plan starts out from the certainty that the correct solution does not exist, because the problem requiring solution is in a permanent state of flux, i.e. it is always temporary. Flexibility is always inherent in relativity, but in actual fact it only has to do with uncertainty, with not daring to commit oneself, and therefore with refusing to accept the responsibility that is inevitably bound up with each and every action that one takes."

Herman Hertzberger in: Forum, vol.16, no.2, 1962

not merely the passive recipient of the director's intentions, but an individual who interprets the film according to his own identity and education. Likewise in architecture, the final destiny of the work is a contest between the intentions of the architect and client on the one hand, and the user on the other. This insight into the role of the user owes much to studies of language and literature, as Hertzberger himself acknowledged.

The force of the analogy between readers and users had been anticipated by the French literary theorist Roland Barthes, who, in a lecture on semiology and urbanism given in 1967, remarked that "the city is a writing; the man who moves about in the city, i.e. the city's user (which is what we all are, users of the city), is a sort of reader". This understanding of the 'user' as an equivalent to the 'reader' inspired much interest in the late twentieth and early twenty-first century.

THE CREATIVE USER

Since the 1990s, the combination of older ideas about flexibility, coupled with newer ideas drawn from literary theory have, been taken up in various ways. There has been a revival of attempts to create buildings that are more indeterminate, that will adapt better to changes in cultural and social circumstances; but this new conjunction of ideas has also sustained a critique of the conventional practice of architecture, making it possible to think of 'architecture' as more than just the work of architects. According to this argument, it is not just architects who 'make' architecture: architecture comes about after buildings are completed through the creative actions of their occupants. Some of these ideas have been articulated by the architect and theorist Jonathan Hill as part of a broader critique of the professionalisation of architecture into the hands of a narrow group of experts; such professionalisation has only been made possible by a deliberate restriction of the definition of architecture to what architects do. Hill's purpose is to expand the definition of architecture to include what happens to buildings once they are occupied. Interestingly, Hill prefers the term 'user' to the alternatives 'occupant', 'occupier' or 'inhabitant', "because it suggests positive action and the potential for misuse". In this new formulation, the 'user' is no longer, as he or she was earlier, a model citizen, whose behaviour and aspirations are focused upon a normative social good, but instead becomes someone with possibly mischievous or even delinquent intentions. And as always, 'users' remain fictions, imaginary actors on whom architects rely to be able to conceive a life for buildings.

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“The house has grown into a knowledgeable witness. It has been party to early seductions, it has watched homework being written, it has observed swaddled babies freshly arrived from hospital, it has been surprised in the middle of the night by whispered conferences in the kitchen. [...] Although this house may lack solutions to a great many of its occupants’ ills, its rooms nevertheless give evidence of a happiness to which architecture has made its distinctive contribution.”

Alain de Botton in: *The Architecture of Happiness*, 2008, Chapter I.1.

SUS-
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LIVING

European building stock

Only about 1% of the European building stock is newly built each year. Half of our entire building stock dates from the period between 1945 and 1980 and has now reached an age where a major refurbishment is due.


Approximate average data from Germany, France and Netherlands

30%
Before 1945

50%
Between 1945
and 1980

19%
After 1980

1%
Yearly
new-built



WHAT MAY THE FUTURE HOLD FOR THIS DUTCH TERRACED HOUSE?

Refurbishment and extension of ten terraced houses
Architects: BowhulpGroep, Utrecht
Address: Poorterstraat 29-47, Montfoort, NL
Year of construction: 1976



PARTICULARLY ORDINARY

In the little town of Montfoort in the coming months, ten 1970s terraced houses will be transformed into the first Active Houses in Holland. But there is something else that makes this project special – it deals with social housing.

By Anneke Bokern
Photography by Torben Eskerod

SO THIS IS HOW Dutch building projects of the future look. A sleepy residential street at the edge of a small town south west of Utrecht, flanked by terraced houses from the 1970s. Light brown coloured bricks, light blue weatherboards, white plastic window frames and low sloping tiled roofs. All sorts of low picket fences from the builders supply store separate the little paved front gardens from the street. It could hardly be more normal – and that is exactly what is unusual, because in the next few months, ten terraced houses in this street will be converted into the first active houses in Holland.

When sustainable architecture is mentioned in Holland, it is usually relation to high-budget showcase projects: one-off office buildings equipped with every conceivable kind of technical gadget, or city development programmes for which ‘cradle to cradle’ gurus are hired as advisors. Although prestigious, these projects have little to do with the everyday reality of most Dutch people. The reality is a residential building stock of millions of poorly insulated, single-glazed and quite nondescript terraced houses that sprang up everywhere out of the polders after the Second World War but which have received hardly any attention over the past few decades, except for essential repair. But things have changed with the latest economic crisis; it has become clear that the attrac-

tion of short-term profitability of newbuilds cannot be relied on in Holland either. The reality is Poorter Street in Montfoort.

BETWEEN POLDER AND SPORTS GROUND

Montfoort is a community of about 13,000 inhabitants in the pastoral ‘green heart’ of the Randstad conurbation. Only a few minutes off the motorway, you pass the signpost and then, for a long time, there is nothing. Along the country road there are rows of farmhouses with open pastures in between. After a while, a church steeple can be seen in the distance. The road into the small town does not lead to its medieval centre but straight into a 1970s housing estate. Once there, you suddenly lose any sense of place, because this could be any estate in Holland, from Roermond to Groningen or from Breskens to Heerhugowaard. The centre of this 1970s built area is called Hofland, consisting of a dozen peaceful residential streets, with terraced housing and little parking areas. On the west it is bounded directly by open polders, on the east by a large sports field.

Montfoort’s Poorter Street does not have a good reputation. Although it is not obvious at first glance, the terraced houses on the street are all social housing. In most other countries, it would be clearly visible in the architecture, but in the Netherlands the liberal left maxim ensured that social hous-

ings should look little different from normal homes. But if you take a second look, however, looking again, you notice that the parking spaces are filled with small older cars, and that the front paths are made up of paving slabs stuck together, the weeds pushing up through the joints. As for the houses themselves, thanks to cheap window frames and carelessly screwed together facade elements, you can see that these do not exactly belong to the most exclusive properties. The fact that this is not apparent sooner is due to the relatively introverted character of the houses themselves. Usually, the Dutch are known for their big living room windows with no curtains, looking directly on to the street, where the whole interior can be taken in by the glance of passers-by. In Poorter Street only the narrow slit windows of the storage room under the roof face the street, while the main facade with kitchen window is at the opposite end of the entrance. Whether the interior contains expensive designer furniture or cheap items from the home store remains concealed from curious gazes. Only the mass-produced knick-knacks that occasionally embellish a front garden reveal something about the residents of the street.

SPACIOUS YET STILL GLOOMY

In total there are 92 houses of this type, all of which are due for complete modernisation. Nowadays, with their poor insulation and old boilers, they only rank EU energy label E. After the renovation this should be improved to energy label A. It is hoped that the ten houses at the end of Poorter Street, which will be renovated as a pilot project for active houses, will afterwards attain A++ standard.

In their interiors it becomes clear why these houses are suitable for such a conversion: for Dutch social housing, which are normally very small homes, they are surprisingly spacious. Inside the entrance

“Nowadays, with their poor insulation and old boilers, they only rank EU energy label E. After the renovation this should be improved to energy label A.”

Anneke Bokern

“At the moment it’s still hard to imagine that, in a few months’ time, Poorter Street will be home to one of the most advanced social housing projects in the Netherlands. The row of houses seems like it’s trapped in the ,70s, as if it had been cast in jelly: not capable of movement, but preserved.”

Anneke Bokern

door there is a little hallway leading directly into the kitchen and living room, which are arranged as a single large space of about 45 square metres or so, with the living area facing the small back garden. Stairs lead to the first floor, with an inner, and therefore windowless bathroom, and three bedrooms, the largest of which has a small storage space under the stairs. The attic, reached by pull-down access stairs, also serves as a storage area.

So far, so normal. Despite all the space, the house’s interiors still seem somewhat gloomy and oppressive. This is due both to the position of the kitchen window in a poorly lit corner of the building in the little fenced-in front garden, but also due to the very low ceilings, finished with cheap light-absorbing sprayed-on plaster. The living room with corner kitchen is a tunnel-like space, where hardly any daylight reaches the centre. It smells of leather sofa and the morning breakfast, but also of damp grass from the garden as it has just rained and the doors are open. Somehow the houses radiate a 1970s atmosphere that flat screens and microwaves can do little to change. From the distance, cheers are heard – a television is showing a football match from FC Utrecht. Otherwise all is quiet on Poorter Street.

JUSTIFICATION FOR THE SLOPING ROOF

Overall you get the impression that the architect didn’t really know what to do with sloping roof; externally it is so characteristic but internally it only forms storage spaces and prevents daylight from reaching the inner living spaces. And this despite using a layout that is actually a standard Dutch plan type, the doorzonwoning or ‘through-lit house’, whose main quality should be that it admits daylight from both sides.

Accordingly, one of the main goals of the renovation is to bring more light into the houses. This will be achieved through the conversion of the attic space into an extra living room with roof terrace, a large area of roof windows and a built-in staircase. Through the new stairwell, daylight will be able to penetrate as far as the ground floor, on its way lighting the bathroom through a new internal window, which is rare in the Netherlands. An equally important aspect of the renovation is, of course, the energy improvement of the buildings. Facades and floors will be completely re-insulated. The windows will be triple glazed and new zinc-clad roofs will be installed. On these roofs, each house will be provided with 23 square metres of solar collectors. These will be supplemented with a buffer storage tank for solar heat, a low-energy heating system with external air heat pump, and controlled ventilation, activated by CO₂ sensors. The technical plant will be placed mostly in the ground floor storage room. Obviously the kitchen and bathrooms will be completely modernised, and the general external finishes will be upgraded. To achieve this, old wall surfaces will be completely replaced with sintered white brick. Timber windows will replace the old plastic frames, and under the windows the upper floor will have timber panels and the ground floor anthracite-coloured glass panels.

This should result in the houses inside and out being much friendlier and brighter. In addition, they will have more living area and consume less energy. The only question is how the housing association can finance such a far-reaching modernisation of social housing. The solution in this case was an unconventional agreement with the residents: what they save on energy costs in the future will be added to the rent. Thereby the

residents will incur no additional costs, while the housing association will, little by little, recoup its investment.

At the moment it’s still hard to imagine that, in a few months’ time, Poorter Street will be home to one of the most advanced social housing projects in the Netherlands. The row of houses seems like it’s trapped in the ,70s, as if it had been cast in jelly: not capable of movement, but preserved. During daytime it’s completely peaceful in the street. You can almost hear the paint flaking off the weatherboarding. The only sign of the coming chaos is a solitary resident, carrying a pile of moving boxes under his arm from his car into his house. Soon it will no longer be possible to agree such an exchange. Although you would really hope that many housing associations would follow the example, so that in future the terraced houses of Poorter Street would become lost in the crowd, nothing special, just as they were during the first 35 years of their existence.

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The Active House Radar Montfoort

Active House is a vision of buildings that create healthier, more comfortable lives for their occupants without impacting negatively on the climate. The Active House specification was created in 2011 as both a design tool and an assessment method to enable architects and planners to create healthier, more sustainable buildings.

An Active house is evaluated on the basis of the interaction between its energy balance, its indoor climate conditions and its impact on the external environment.

Each of the three key principles consists of three to four parameters (such as energy demand, indoor air quality, and noise and acoustics), which are assessed both in quantitative and qualitative terms. The Active House Radar shows how all parameters are balanced against each other.

The Active House Radar (below) shows how all parameters are balanced against each other. As the refurbishment of the houses is still on-going, the results are based on a qualified estimate of the eventual outcome.

The three key principles of an Active House are:

Energy

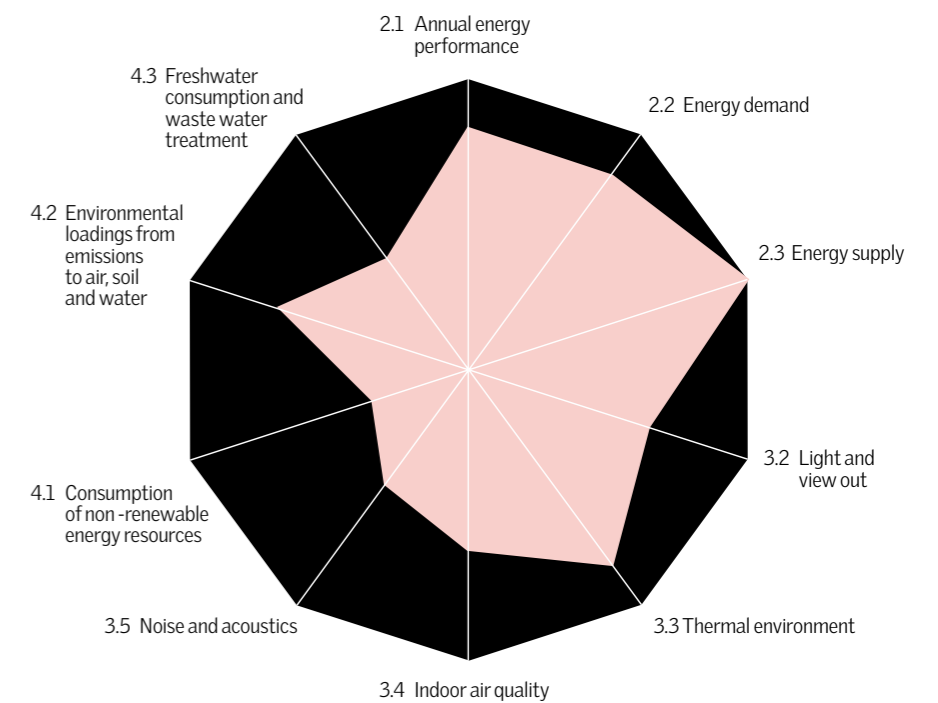
Contributes positively to the energy balance of the building

Indoor Climate

Creates a healthier and more comfortable life

Environment

Interacts positively with the environment



“IT’S ALSO ABOUT THE LEARNING EFFECT”

Interview with Peter Korzelius

“This one house finally turned into ten renovated homes that were all awarded an A++ rating, making them actually more energy efficient than the standard stipulated for new builds.”

Peter Korzelius

Mr Korzelius, you are head of the Groen West Housing Foundation, which also encompasses Stichting Woonbelangen Weidegebied (sww), the housing organisation responsible for the Poorterstraat project. What is the breakdown of your organisation’s building stock? sww itself owns around 5,000 apartments and detached houses, 800 of which are in Montfoort. At the beginning of 2011, we merged with another housing construction organisation and together we now have around 12,000 homes spread all over the west of Utrecht Province.

To what extent are the Poorterstraat houses representative of your housing stock?

They are certainly representative of our stock, much of which was built in the seventies and eighties and is now ripe for a general overhaul. This is what we are currently engaged in.

What do you consider to be the strengths and weaknesses of your houses?

Their greatest strength is that they are big houses with big gardens. However, in construction terms their condition leaves something to be desired – they require renovation. Because of their particularly high future value, we have decided to turn these into pilot homes.

What gives them a high future value?

They are big and they are in a good location. Normally, we write homes off after fifty years, but these houses will certainly continue to turn in profits for another fifty years after the renovation.

Montfoort local authority is looking to become more active in the field of sustainability. This prompted us to announce, a few years ago, that we intended to take one of the houses in Poorterstraat

and do everything possible to bring it right into line with the latest energy efficiency standards. This one house finally turned into ten renovated homes that were all awarded an A++ rating, making them actually more energy efficient than the standard stipulated for new builds.

What made you launch this pilot project?

Theoretically, we could of course have built new homes for the same money. However, we are faced by a situation in which we will have to renovate one third of our housing stock – in other words 4,000 residential units – within the next five to seven years. This is an enormous task. By running this project, we wanted to gauge what it means to really push back the boundaries of what is technically feasible: as much incidence of daylight as possible, coupled with as little energy consumption as possible.

We held a number of internal debates on the issue. After the merger especially, there was quite a considerable headwind of objections to negotiate, as this is a costly project. After all, we are investing 160,000 Euro in each residential unit. But I have no doubt that this project will prove to be a good investment over the next twenty to thirty years. Of course, we know that what we are doing here cannot be repeated for 4,000 residential units – to be honest we simply don’t have the money for that. But we will be able to draw on aspects that have proven successful and that can be repeated in other renovation projects. It’s also about the learning effect.

What will the occupants notice after their home has been turned into an active house?

They will move back into a highly economical home that uses hardly any energy. The costs of fossil fuels are growing higher every

year, meaning that energy costs continue to account for an ever greater proportion of living outlay. This is why investing in reducing energy costs is now a worthwhile objective. Added to this, of course, is the fact that the residents gain an enormous new room with the renovated attic space, and an optimum level of daylight.

How would you describe this quarter? From what I hear, these streets used to have a bad reputation.

Yes, Poorterstraat was not the choicest neighbourhood. Naturally, there is also some social housing. Our target group is people requiring a minimal amount of support who do not necessarily have any capital behind them. In a town made up largely of privately owned properties, this does not exactly enhance the reputation of an area. However, this is often nothing more than an image issue. People build up an opinion about a street and its inhabitants which has nothing to do with reality. This is why it is such a good thing that this street has been chosen as the pilot project.

Peter Korzelius is Chief Executive of the GroenWest Housing Foundation, created from a merger in January 2011 of several social housing organisations including SWW (Stichting Woonbelangen Weidegebied), of which Korzelius was CEO and whose building stock included the houses in Poorterstraat.





“WE TRY TO INSTILL IN THE RESIDENTS THE IMPORTANCE OF SUSTAINABILITY IN HOUSE CONSTRUCTION”

Interview with Rob Jonkers

Mr Jonkers, you are the councillor with responsibility for regional development and housing on the Montfoort Local Council. How long have you been involved in local politics?

I held a seat on the local council from 2002 to 2006, then I took time out and returned in 2010.

Do you live in Montfoort yourself?

Yes, I have lived here for almost twenty years.

Do you think the community has changed much over this period?

Not really, I think Montfoort is a quiet little town.

Is it growing or shrinking?

Well, we are positioned in what they call the “green heart” of Randstad. This is a conservation area whose rural character has to be maintained. This means that throughout this province, new housing and extension projects are only possible within a very limited framework, that our growth is restricted – and at the same time we are catering to an ageing population.

What type of flats or homes are required in Montfoort?

To cater to the age structure, we require primarily homes suitable for retired and elderly people. Affordable housing for younger members of the population is also an issue. Property prices here are very high, which leaves young

people with hardly any chance of buying their own home. At the same time, for the reasons already stated, our hands are tied when it comes to building affordable new housing. In my view, the state does far too little to create living space for young people.

Is there currently a lot of renovation work going on in Montfoort?

Yes, the social housing organisation SWW is doing a lot of renovation. There are several districts located around the historic centre of the town that date back to the post-war years and urgently need to be brought up to modern standards. This also applies to the homes in Poorterstraat. As a council, with this type of project we are attempting to instil in the residents the importance of sustainability in house construction.

What is the significance of the Poorterstraat project in this context?

The project is unique because it is not just about sustainability but about active homes. This makes it special not just for Montfoort but for the whole of Holland.

How would you describe the standard of living in Montfoort?

Montfoort is very green. Although it has a large city just around the corner, with Utrecht not far away, the feeling is certainly a rural one. Officially Montfoort has a town charter, but it has a very village-

like feel. The centre is very attractive, even though a lot of old buildings were torn down in the eighties. We have a lively culture of clubs and associations, and as Montfoort is a Catholic enclave in a Protestant area, we are a proud bastion of the carnival tradition. There is a big carnival procession here every year, made up of almost a hundred floats.

What can you, as a councillor, do to promote these qualities?

My aim is first and foremost to nurture our thriving club and association culture and to make this a place in which people can live from the cradle to the grave. Currently, there are too many people moving away when they reach a certain age.

Rob Jonkers is an independent councillor on the Montfoort Local Council with responsibility for regional development, housing and transport.

Corine van Velzen lives with her two teenage children in Poortersstraat 31. She moved into the house three years ago after she was divorced from her former husband.



Why did you move here three years ago?

cv: Well, we didn't have any choice. I was newly divorced and this was the house I was allotted by the housing society.

How do you like the area?

cv: It's quite nice. We don't have that much contact with the neighbours. Most of them just pass us by. I think that's obvious, because we don't live out on the street that much. The others are always sitting in their front gardens talking to each other. That's not how we are. Do you know the Dutch comedy series they used to air on television in the eighties about a family of chavs called Flodder? Some of the neighbours here remind me of them. The street doesn't have a good reputation.

Is that still the case? I had heard that it used to be like that but is not any more.

cv: Well, I am really not proud of my address. When people ask me where I live, I try and wriggle out of telling them.

And the house itself? Do you feel comfortable living in it?

cv: Yes, it is great. We once lived in another house of the same type in

this housing development. So we knew what to expect. I also have a son who is visiting his father today. His room is rather small. But otherwise the house is good. Except for the fact that the bathroom is covered in mould.

So will your son soon be getting the large room in the attic?

cv: No, I will be getting it! Initially he protested, but the room won't have a door, just an open staircase. That was a powerful argument because he doesn't want that.

What else are you hoping to get out of the renovation?

cv: A lot of light and a good floor plan so that the house will seem more spacious. In any event, we feel very positive about the renovation. And we certainly won't be sorry to see the brown tiled floor in the living room go.





Interview with
Ron Vermeulen and
Loes Oenema

"I don't really want to go away from here"

Ron Vermeulen lives with his girlfriend Loes Oenema in Poorterstraat 37. They moved into this area four years ago when their previous apartment became too small for them.



How long have you been living here?

RV: We have been living here for four years. Before that, for 15 years I had an apartment in Woerden. I lived there for a year and a half with my girlfriend. But it got too small, and they had a vacancy here. At the beginning I found it difficult to settle in. But it is nearer to where I work, and we have some nice neighbours. I don't really want to go away from here.

What do you specially like about this house?

RV: The size. Otherwise there is nothing special about it.

Do you have a favourite spot in the house?

RV: No, we like sitting everywhere. Only the kitchen is rather impractical. It's not good even though the housing society installed it according to our specifications, because the kitchen of the previous tenants didn't comply with building regulations. But we didn't plan it very well because we can only sit next to each other at the table and not opposite each other. So now we have planned to have the kitchen relocated to the front of the room in the renovation.

What are you planning to do with the additional room in the attic?

RV: We don't know yet. We first thought that we would use it as our bedroom, but my girlfriend would prefer to sleep on the floor where the toilet is.

Are you glad that your house was included in the pilot project?

RV: Yes and no. We wouldn't have had to move out if it had been only a simple renovation.

And what do you think of the idea that the houses will be fitted with solar panels and heat pumps?

RV: That is all new for us. We don't know yet how that will turn out.

Well, the houses will become active houses and will regulate many things themselves.

LO: Oh dear... and when I get home, will the meal already be ready?

RV: I think it is a good project. And for that we are also prepared to move out for a couple of months. Even though my girlfriend will only be moving out with great reluctance.

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Interview with
Marga and Edwin
Hamelinck

"Keep your new builds,
we'll take the house!"

Marga and Edwin Hamelinck live with their two sons and two daughters in Poorterstraat 33. They moved here 17 years ago and subsequently refurbished many of the rooms themselves, to make them suit the needs of a family of six.



How long have you been living here?

EH: A good 17 years. It was our first shared house, and all our four children were born here.

Why did you choose this house at the time?

EH: We were on the housing society's waiting list. At the time, there were a number of newbuild projects in Montfoort, and we were initially offered an apartment in a newly constructed apartment building. But then they said that a house in Poorterstraat was also available. My brother-in-law lived at the top of the street, so I knew the houses. And so I said - all right, you can keep your newbuilds, we'll take the house.

Why?

EH: Because these houses are so big.

MH: I think they must be the biggest rental houses in Montfoort.

EH: And they've got a proper garden. Most gardens of newbuilds are a good twenty square metres smaller. Of course we changed some things in the house over the years. But it is just fantastic to have so much room.

Has the neighbourhood changed since you came to live here?

EH: Poorterstraat did have a bit

of a reputation. It was considered the street where the louts of Montfoort lived. We thought: who cares? Once we close the front door behind us, we don't notice anything going on, anyway.

MH: I don't have much to do with all of the neighbours. I'm quite good at blocking someone out if I don't like them.

What do you think about the houses now being renovated?

EH: Well, you see, the housing association didn't do much maintenance on the houses over the last few years. The renovation is badly necessary. We always did everything ourselves. I renovated the kitchen and the bathroom myself and I did up the attic and turned it into a bedroom for our two sons. I even tiled the toilet myself. But I did all of that a couple of years ago, and we were already thinking whether we needed to do it again soon. But then the housing society came with its big renovation plans. It was right on cue. I just said - Great! When can you start?

How do you think the house will look like when the renovation is over?

EH: Spacious, with lots of light, totally different. After 17 years, we will be starting from scratch again.

We will be moving the kitchen to a totally different spot to create a large dining and living area. But on the first floor, the bedroom at the front of the house will become a little bit smaller, because of the new staircase. Oh well, I had been wanting a proper staircase up to the attic for years. I even thought about building it myself but you don't want to put that much money into a rented property. And if we had moved out, we would have to undo all of it again, because it would not have complied with building regulations. So for us, the renovation is a godsend.





Interview with
Pega and Egidio
Geerman

"Our front door is always open"

Pega and Egidio Geerman have been living in Poorterstraat 47 for 24 years. After moving into the house, they spent the first five years refurbishing it and turning it into a home for themselves.



What made you choose the house when you moved to Poorterstraat 24 years ago?

EG: My boss at the meat factory didn't want to give me a permanent employment contract if I didn't have a tenancy agreement. This house was our only option – because no one else wanted to have it. It was in a terrible condition. It took me five years to get it into a decent state.

If you have been living here for so long, then you are surely well acquainted with your neighbours and the neighbourhood?

EG: Yes, of course. There have been good years and bad years. At the moment, things have become a little tricky again because of the renovation. Some of the neighbours are jealous because their house has not been included in the pilot project. But it's not our fault that our house was selected.

Has the neighbourhood changed over the years?

EG: Yes, especially over the last few years. There are more newcomers living here who don't come from Montfoort. But that is the same as everywhere else in the Netherlands.

What do you especially like about this house?

PG: That you can open up everything in the front and the back. EG: We like living with open doors. Our front door is always open, and the neighbours' children can simply come and go. Maybe that's because we come from the Caribbean island of Aruba. Of course nowadays you can't keep your door open there anymore, but you used to be able to.

Do you want to stay on here?

EG: Yes, I always say - I will only leave this house when they carry me out feet first. I've brought up three children here.

Do you have a favourite spot in the house?

EG: Yes, of course: in front of the television (laughs). PG: My husband is always down here and I am upstairs. I prefer to read.

Do you have the feeling at the moment that something is missing in the house or that something isn't working?

EG: If I understood it right, the window frames and part of the exterior wall cladding are all rotten. Upstairs too.

You will be getting an extra room in the attic. What are you planning to do with it?

EG: I will be renting it out (laughs). No, no. On the drawings the room looks very nice indeed. We don't know yet exactly what we will be using it for.





HOW CAN PARIS' BANLIEUES SURVIVE?

Refurbishment of a high-rise residential building
Architects: Frédéric Druot, Lacaton & Vassal, Paris
Address: 5, bd du Bois-le-Prêtre, Paris, F
Year of construction: 1959





THE RISKY BUSINESS OF META-MORPHOSIS

The transformation of the Bois le Prêtre tower is causing a stir in the Parisian landscape. Its visual impact has opened up a sensitive debate on the economic and architectural issues involved in revamping existing social housing stock.

The project shows the spectacular results that can be achieved when performance and pleasure are introduced to a building where these features have never been known.

By Karine Dana
Photography by Torben Eskerod

THE BOIS LE PRÊTRE tower, situated in the north of the 17th district close to the Paris ring road, is unrecognisable. Its former air of sadness and dejection – an image that still afflicts the nearby Borel tower – has been well and truly obliterated. Its location – where the municipalities of Paris, Clichy and Saint-Ouen come together – is highly typical of an outlying urban area that has slowly evolved over the last 50 years. This area of Paris was shaped by the ambitious plans of architect Raymond Lopez in the 1950s, and has an elevated section of the ring road running through it, the Batignolles cemetery, utilities sites and social housing. These days, by virtue of the different uses to which it is put, it is a vulnerable, fragile area, fairly densely populated and informally focused around pockets of activity. But there's a feeling that it is about to be knocked into shape – covering some 15 hectares and with around 1,000 residents, it is part of a major urban renewal project aimed at 11 Parisian areas considered a priority. There's a hoarding on site explaining what's going on. A screen opposite the ring road shows images of offices and hotels. There's going to be a new public square and the utilities will be relocated.

Apartments are being built – new ones on the rue Rebière in particular, while the day nursery of the Bois le Prêtre tower is being demolished and rebuilt, and the Borel tower and the northern part of the adjoining block are being knocked down. The Bois le Prêtre tower, though, has a somewhat ambiguous position as an involuntary icon of a preserved past and will be spared. It is the very first undertaking in this major urban project, and looks out of place in a district that has undergone such fundamental remodelling over the years that it has lost its identity. The tower embodies a feeling of certainty that it's still possible to plan a city and the hope that there will be lasting cohesion, fluidity and tranquillity. But it's hard not to retain a touch of scepticism – it would be naive not to. Does the day nursery at the bottom of the Bois le Prêtre tower really have to go? Couldn't anything have been done with the Borel tower and block? Was there no way of preventing the rue Rebière, with its absence of shops and cafes, from looking like a dormitory town? There's a feeling that the town planners could have come up with something a bit different and applied the attitude and vision that they adopted towards the Bois le

Prêtre tower – enhancing and caring for the existing – to the whole area. The heavy urban machine, which invariably creates manufactured environments, could then have been stopped in its tracks. For the project to transform the Bois le Prêtre tower has been a long time in the making. It is the story of resistance, and the culmination of a thought process kicked off eight long years ago by the Ministry of Culture, which challenged architects to come up with an alternative to the very expensive policy of demolition and reconstruction that Jean-Louis Borloo, Minister of Urban Planning at the time, had introduced as part of the Law on Solidarity and Urban Renewal. The architects submitted an analysis in favour of transforming high-density housing estates and opposing their demolition, which they viewed as a cultural and economic travesty given that these assets were effective and often imbued with great qualities. They wanted to show they could achieve a better and more pleasing result by spending less – it costs 100,000 euro to transform an apartment, compared with 170,000 euro to demolish and rebuild it – than by building new housing.

THE MAGIC OF WINTER GARDENS It was a truly bold move. The old facades of curtain walling – double-skin asbestos-fibre parapets and inward-opening panels – have been replaced by layer upon layer of cheery-looking see-through extensions. The existing structure – comprising concrete floors and cross walls on a 7.5 metre framework that was separate from the original facade – provided an excellent base from which to make the stunning transformation. The objective was to achieve a comfortable temperature and improve on the smallness of the housing units and the lack of natural light in the communal foyers and other areas.

A further problem was that the 50-metre tower, comprising 17 floors and 96 apartments (32 with 6 rooms, 28 with 3 rooms and 36 with 2 rooms), lacked any large apartments classified as T4 or T5. During the transformation, four units were added and the surface area of all existing apartments was increased by 40% through the addition of winter gardens – unheated buffer zones capable of creating different ambiances – on the east and west facades, and a number of heated extensions created by extending the floors along the north and south sidewalls. All the apartments have been rewired and replumbed and had new ventilation units installed.

When viewed from below, the sparkling facade of the apartments in strong sunlight causes the viewer to raise an eyebrow. It soon becomes clear that this is not a cheap trick but hints at the cunning design inside. The apartments have been fitted with blinds more commonly seen in greenhouses. And because some of the blinds are open and some are closed, they create an unexpectedly lively air around the winter gardens – which measure 7.5 m by 3 m and come with a prefabricated metal frame and concrete floor – and make them look deeper than they really are. Glimpses of life.

It takes a bit of nerve to envisage a building so clearly when there's already one in existence... Passers-by enjoy imagining what it's like to live in one of these glazed cabins. They look soft and unobtrusive, and not all of them are fully fitted out. The local residents haven't had much time to get used to them. One striking feature is that you can make out people sitting in them, coming and going, watering the plants, going about their business. They enter and leave as they would a small house. The facade is definitely unique. In fact, it's not a facade at all, but an urban feature.

“By allowing the residents to define the usage and climate of their new surroundings, this project allows them to change their living space like a stage set – something rarely encountered because of a lack of alternatives and interior space.”

Karine Dana

Lifts have been attached to the facade to provide street-level access to the apartments. Communal lobbies and other areas have been re-modelled. The old uniform sterility on all sides is gone. The safety doors are transparent, as are the cross walls. Each landing gives the feeling of a protected external area, a ground floor in mid-air. It would be good to see them put to new use, now that they are so nice and bright. They are no longer cells, but distinct spaces.

This is an ambitious project, designed around sympathetic and enjoyable relationships with space. Relationships such as these are very rarely considered in the production of social housing, which is driven so much by saving energy that the key principle of sustainability – people’s attachment to where they live – is relegated to the bottom of the pecking order.

SUDDENLY, THE INTERIOR SWITCHES

We enter a single-aspect two-room apartment. It originally measured 45 m², but the floor of the living room and the bedroom has been extended to make an 18 m² winter garden and a 1 m wide balcony. It’s fitted with triple glazing and looks really inviting. The existing curtain walling has been replaced by a full-length glazed facade comprising aluminium sliding doors with a flush sill. It opens on to an intermediate space with fixed and mobile panels glazed in polycarbonate. A balcony with transparent screens runs along the length of the new facade and – like an open border – provides the winter garden with the backdrop it needs to be an inside space. In addition to increasing the living area and light, this project allows residents to change the habitable space according to the season. The existing floor plan for this area remains the same, with the kitchen located in

the living room and receiving indirect daylight. Because it opens onto the outside and is brighter, the space becomes a retreat, like a viewing platform. The bedroom, which previously had only one entrance, is connected to the living room via the winter garden. It is no longer a dead end, but a starting point, which improves the size and proportions of the living room enormously. The winter garden is a sensitive space, like a skin. It becomes the main room during mild weather, freeing up the kitchen. In cold weather, the residents will most likely move back into the existing living room to sit, while the winter garden becomes a safe place for children to play and for gardening. By allowing the residents to define the usage and climate of their new surroundings, this project allows them to change their living space like a stage set – something rarely encountered because of a lack of alternatives and interior space. Residents can create an ambiance to suit their mood, depending on the position of the sun (using curtains), the amount of air that comes in (there are several points of ingress), and the level of intimacy created in the sitting area. They can sit in different areas and try out different combinations and positions according to the weather. The residents were in situ when the works took place, so they were very much involved in taking the project forward and adapting it. This was a very challenging process, but one that started a relationship and helped the residents gradually come to understand the architects’ intentions. They were able to see that relationships with new things are all the stronger if they develop alongside existing situations. This is a much more powerful experience than simply entering a new environment because it creates a new vision from two states of existence. Although

the apartments did not undergo a massive restructuring, they have all profoundly changed. Such a switch can be highly confusing: life contains the same things, but is driven by something completely different.

A winter garden cuts heating costs in half, and at the moment costs are not charged according to the increase in habitable area. In France, heating is often approached from the angle of materials and barriers, but when you go into an apartment in the Bois le Prêtre tower, you understand how beneficial it is to view this issue in terms of openings, light and flows.

It goes without saying that we need to return to the tower in several months’ time to find out how its occupants are transforming it. But in any event, this operation has now set a benchmark for creating social housing in France. It must not become an exception. It must inspire, be reproduced and set in motion as many ways of increasing existing capacity as there are situations. It represents a new approach to city economy, and a step further than anyone has ever gone before.

Karine Dana, a qualified architect, was section editor at the French architecture review *amc* for 12 years and now works as an independent author and journalist. She regularly works with Lacaton & Vassal and has contributed to their new monograph, which is due to be published by GG.





Interview with
Ms Jean-Charles

"Once the walls had been taken down,
I could see it was going to be magnificent!"

Ms Jean-Charles, 44, has lived on the 16th floor of the Bois le Prêtre tower since 2000. She was really pleased with the transformation to her apartment and told us how her way of living had been radically changed.



How was this on-site transformation project explained to you?

There were lots of meetings, which created a much closer relationship with the locals. At first, everyone was sceptical. The older people were anxious about packing away their memories in boxes and having to get rid of things. But I was up for it. This project embodied a new start. At the beginning, no one believed it would work. We thought it was impossible to do this sort of thing. The architects converted an apartment into a show apartment so that the residents could get a better idea of what was going to happen. From that moment on, we were really able to imagine it and get on board.

What was it like living in the tower while the works were going on?

I was one of the first residents to have the works done. Because my daughter is asthmatic, we spent two and a half months in temporary accommodation. It was difficult living there, even though we were very nicely set up and looked after. What kept us going was the project itself. Once the walls had been taken down and the existing facade removed, I could see it was going to be magnificent!

During the works, the firm and the architects came to see me frequently to ask me to choose the wallpaper, the colours and the tiles. I think it's really important to involve people and give us the right to change our lives. The advice

the architects gave me on fitting out the rest of my apartment was very useful too. I really appreciated these meetings.

What was your initial feeling about the transformation?

My apartment was one of the smallest in the tower, about 50 m², and now it's about 80 m², and my rent hasn't changed! The transformation has really changed our life style and the way we live, even though very little was done to our existing apartment. It was repainted, and the bathroom was renovated; it's better equipped now. The only real change is the extra space, this extra room. We now have space, which is the most important thing, and lots of light. You feel less enclosed. I used to live in the countryside in Martinique, so I really appreciate having this freedom. But I don't know what this room is going to be like in winter as it's not heated.

What do you do in the winter garden?

It's become my main room. I have breakfast there, tend my plants and I read. And I write there – that's my passion. This place is very calming; it's my little Zen corner. I feel calm and inspired when I'm in it. And I never go in my old living room now! Even when guests come round, we automatically eat in the winter garden. And I get some great sunsets in the evening.

How do you manage this space in terms of climate and maintenance?

When it's hot outside, it feels like there's a sort of natural climate control. The awnings are effective so it's always cool. Before the transformation, when it was hot outside, the living room would be like an oven – it was unbearable. I had to shut all the windows and doors.

As for maintaining the space, I've bought a steam cleaner for the windows. So they're pretty easy to clean now.

Has this new space changed your relationship with the city?

Absolutely! The panorama means I can see new things and feel closer to outdoors. The city always has something going on. I feel like I'm more involved. Before, when I opened the windows, I used to get a real feeling of vertigo.

I think that if they carried on with this project, it could change people's mindsets.

Changing things inside a person's home can be all that's needed to change how they view things.



"The transformation has really changed our life style and the way we live, even though very little was done to our existing apartment. It was repainted, and the bathroom was renovated; it's better equipped now. The only real change is the extra space, this extra room."

Ms Jean-Charles



Interview with
Ms Dorsemaine

"You get a totally different
feeling of depth."

Mrs Dorsemaine, 90, has lived on the 6th floor of the tower for more than 30 years. Although she was upset by the works to start with, she has just started to enjoy some major benefits from the transformation.



Did you feel involved in the way this project was carried out?

Yes, I was very active in the many meetings that took place about the project. I got involved to defend the residents and I think people still respect me for that today. My husband and I found it difficult to visualise the project. We didn't think it would be possible to extend the apartments out into space. But we were reassured by the fact that there were balconies. My husband has since died; he didn't see the final result...

I think I might be the only resident who stayed in their apartment throughout the works. I was scared they would break my things. The works were very disjointed and caused me a lot of inconvenience – there was dust everywhere all the time. I've only just started to enjoy my apartment and see the positive aspects.

And what are they?

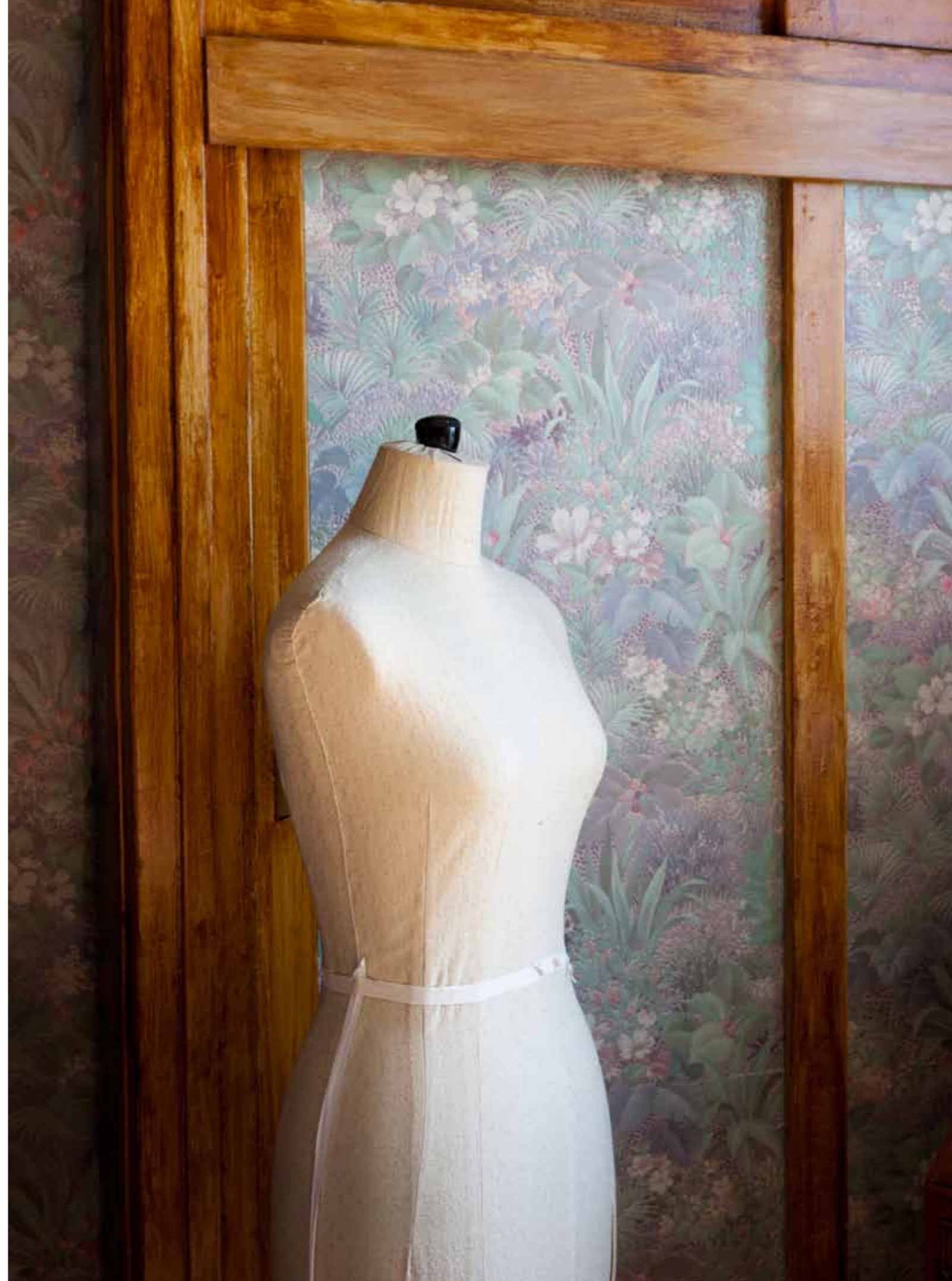
The living room hasn't changed but as it adjoins the winter garden, you get a totally different feeling of depth. It gives the impression that this room is larger, and most of all that you're no longer confined by the walls. That's very important, even though there are lots of glass surfaces to clean now.

And I've put a desk where my bedroom used to be and moved my bedroom next to the winter garden. It's much more pleasant like that because it leads out to somewhere and there are two ways of getting to it now.

Is your apartment more comfortable now, in particular in terms of warmth and air quality?

I love the warmth, it doesn't bother me. I have no problems managing it. I move around to find where it's hot, not to avoid it. The small external awning is more than enough to manage it. The thermal curtain seems useless to me. I told the architects at the very beginning that I didn't want it because it wasn't to my taste. I already have double-lined curtains which are just the job. I've always felt good in my apartment. It's different now. There's more air and I can sit in several places. I can walk around. But I've always felt good here, even before the works. This room gives me more space, which I appreciate. I can put small things here without cluttering up my living room. I sit on the sofa or in the armchair; I plant herbs – parsley and chives. I like tending this bit of outdoors. I have more options for moving around.

Also, I often go on to the balcony and put other small things there. I really like having air. I see the surroundings differently now. Last night I watched the sunset, and I could see Mont Valérien really easily, over there, directly opposite. I really should go up there one day.





"Also, I often go on to the balcony and put other small things there. I really like having air. I see the surroundings differently now. Last night I watched the sunset, and I could see Mont Valérien really easily, over there, directly opposite. I really should go up there one day."

Mrs Dorsemaine



HOW MUCH CHANGE CAN A SEMI- DETACHED HOUSE BEAR?

Refurbishment and extension of a semi-detached home
Design: Katharina Fey, Technische Universität Darmstadt
Consultants: Prof. Manfred Hegger, Prof. Klaus Daniels,
Prof. Peter Andres, Prof. Karsten Tichelmann et al.
Address: Katenweg 41, Hamburg, D
Year of construction: 1954



SUSTAINABLE SYMBIOSIS OF OLD AND NEW

With the experimental housing project Model Home 2020, VELUX has embarked on the search for the house of the future. A modest 1950s estate house, with a design by architecture student Katharina Fey, has been transformed into a light-filled zero-energy building.

By Amelie Osterloh
Photography by Torben Eskerod

A FLOCK OF ZEBRA finches twitter excitedly whenever a visitor enters the living room. In the carefully decorated room, their large aviary takes up more space than the dining table. "We can't move the birds," says Claudia Passlack with a laugh. She has been used to living with pets in the smallest of spaces since she was growing up here in Katenweg in the days when most neighbours kept chickens, rabbits or pigs. Eleven years ago, Claudia and her partner Sven Schult acquired their own semi-detached house. In those days it was just like any other house on the street – until their elderly neighbour died and his son sold it to VELUX. The roof window manufacturer had been searching for an estate house to modernise as an exemplary zero-energy building. So, the tranquil home of Claudia Passlack and Sven Schult indirectly became part of the first international construction exhibition (Internationale Bauausstellung, IBA) in Hamburg.

The so called LichtAktiv Haus is the German entry for the VELUX project Model Home 2020 which comprises six buildings in five European countries. With new building going on in other places, the deliberate focus in Germany was on modernisation. "Buildings today account for 40% of all energy consumption and although there are many new building projects in the country, roughly half of all Ger-

man homes were built after the war, and they are in need of energy modernisation," says Sebastian Dresse, CEO of VELUX Germany, who sees an urgent need for action. The semi-detached house in Katenweg is located on the Elbe island Wilhelmsburg, to the south of the city centre. Built in 1954, it is typical of a construction era when materials were expensive but energy was still plentiful.

MODERN ROOF WINDOWS LET IN ABUNDANT LIGHT AND SOLAR ENERGY

Neat duplex houses stand row after row in the Finkenriek housing estate. Originally, most of them were hardly more than sixty square metres in area, but built on a 1,000 square metre site. After the war, working class people were given the opportunity to own their own property here and live self-sufficiently. Over the years, most houses have been so altered that today they are hardly recognisable. In the midst of all this, stands the shining white-plastered modernised LichtAktiv Haus. With a light grey roof with no overhang it almost looks like a new build. Due to the additional external wall insulation, the window reveals are somewhat deeper than the neighbouring houses. As both houses – the LichtAktiv Haus and the Passlack/Schult house – were refurbished together, their exter-

“Light, practicality, functionality – this is the living machine of the future. This house wants to be an active partner rather than a passive box.”

Amelie Osterloh

nal appearance is much the same. However, whereas the house of Claudia Passlack and Sven Schult still has the typical annex attached to it, dating back to the period in which the estate was built, No.41 – the LichtAktiv Haus – has a very modern extension that stretches from the road, deep into the back garden.

Visitors are welcomed by the light and bright interior. The entrance is in a glazed link between the original house and extension. Straight ahead there is the beautiful, extensive garden. Space-saving sliding doors lead left into the original house. Previously, family life took place here in small dark rooms. And for its first years, two families lived in this semi-detached house, one on each floor. Today these spaces form the retreat area of the house. On three levels are two children's rooms, the parents' bedroom with walk-in closet and two bathrooms. Under the roof apex there is a small gallery with roof windows; it receives daylight from both sides and is an ideal place to work, read or even to accommodate an overnight guest. The most striking feature of the house is light: during the renovation the window area was doubled and all rooms are now linked by the new generously-dimensioned open staircase, where an almost five-metre high glass facade ensures abundant daylight, even on overcast days. The effect is strengthened by the white walls and bright floors throughout the house. The right side of the entrance leads into the new extension, once again through a sliding door. The living and dining area is a large rectangular space divided only by a free standing kitchen island and a room divider that houses the kitchenette on one side and ample storage space on the other. In the direction of the street are a guest toilet and utility room.

When all the windows are closed, the house is almost completely airtight and sound proof. You could hear a pin drop, but you only really become aware of that when the ventilation flaps are opened – then you can hear the wind rustling in the trees and the S-Bahn railway that runs not far from here. Soon a family will move in – and bring with it all the bustle of everyday life. The rooms are still sparsely furnished, with only the most important items – a large dining table, a sofa, beds, and some toys in the children's rooms. The house is still more an exhibit than a home. In front of the door, a large sign with the IBA logo explains why this house is special. A group of cyclists stop in front of it. It is a guided IBA tour. With professional interest, they all peer into the interior of the exemplary building. The residents here will also become part of the exhibit. The long side of the living room is glazed from floor to ceiling and anyone more comfortable with a solid wall at their back will feel pretty uncomfortable. It is to be hoped that Claudia Passlack, Sven Schult and their neighbours have better things to do than to watch each other eat, because drawing the curtains before dark is hardly a viable solution.

THE HOUSE OF TOMORROW IS AN ACTIVE LIVING MACHINE
Despite the post-war building materials and large glazed areas, state of the art technology has transformed this house into a zero-energy building. From roof ridge to base, the outer shell of the old building has been packed with insulation. In the first months after the renovation, for Passlack and Schult from next door this measure alone made a “huge difference” in living quality and heating costs. The extension also plays a key role in giving the semi-detached house completely CO₂-neutral status. To

the street, it is extended as a carport, to the garden as a covered terrace. Thus, on the extended south-facing mono-pitch roof of almost 80 square metres, there are photovoltaic and solar-heating units, which, with the help of an air and water heat pump, produce the balance of energy required for household appliances, lighting and auxiliary power for the pump. To ensure optimum performance of the ventilation concept, all internal and external parameters must be carefully monitored, factors that are barely perceptible to the residents such as small temperature fluctuations, or the CO₂ content of the air. The measuring sensors around the house are plain to see and, despite their small size, they still stand out in the minimalist ambient style: thermometers, hygrometers, and light meters monitor and register every fluctuation of the room climate and anything else that influences the energy balance; showered too long and too hot? spent half the night surfing the net on a large screen? been up to other human activity that generates above-average temperatures? The measurement results are displayed on a flat screen recessed in the wall of the stairwell. Light, practicality, functionality – this is the living machine of the future. This house wants to be an active partner rather than a passive box. So when the instruments initiate cross ventilation when the family is right in the middle of breakfast, man and house still have to get used to each other a little bit.

Amelie Osterloh studied architecture and for eight years was an editor for the magazines *Baumeister* and *HÄUSER*. Today she works as a freelance author and editor in Hamburg.





The Active House Radar Licht Aktiv House, Hamburg

Active House is a vision of buildings that create healthier, more comfortable lives for their occupants without impacting negatively on the climate. The Active House specification was created in 2011 as both a design tool and an assessment method to enable architects and planners to create healthier, more sustainable buildings.

An Active house is evaluated on the basis of the interaction between its energy balance, its indoor climate conditions and its impact on the external environment.

Each of the three key principles consists of three to four parameters (such as energy demand, indoor air quality, and noise and acoustics), which are assessed both in quantitative and qualitative terms. The Active House Radar shows how all parameters are balanced against each other.

The Active House Radar (below) shows how all parameters are balanced against each other. As the evaluation of the house is still on-going, the results are based on a qualified estimate of the eventual outcome.

The three key principles of an Active House are:

Energy

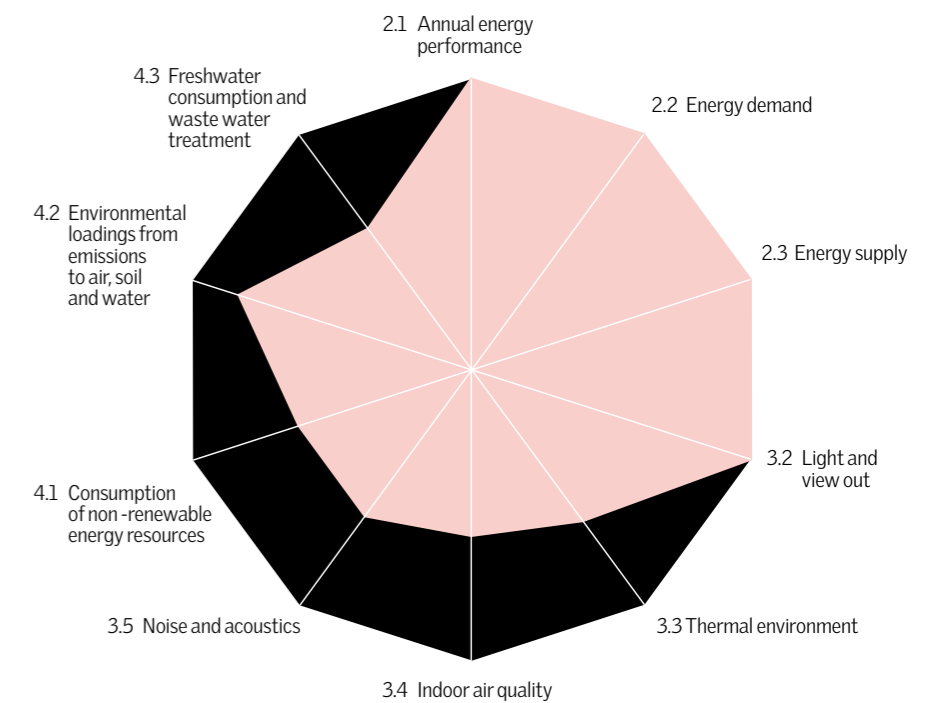
Contributes positively to the energy balance of the building

Indoor Climate

Creates a healthier and more comfortable life

Environment

Interacts positively with the environment





“URBAN PLANNING HAS REVERTED TO A CLEAR ETHOS”

Interview with Uli Hellweg

Mr Hellweg, you were involved in the Berlin International Building Exhibition (IBA) back in the 1980s. Now, as CEO of IBA Hamburg, you are seeking to drive forward the international building exhibition concept as a quintessentially German tool of urban planning culture. Can you explain just what the international building exhibition concept means to you?

Although they may have evolved in very different ways over recent years, the approach adopted by the international building exhibitions is fundamentally always the same.

And yet they have all been very different?

As far as their methodological approach is concerned, they have more in common than they have differences. But differences do, of course, exist between us, and also between us and the IBA-Stadtumbau exhibition held concurrently in Saxony Anhalt and the IBA-See in Brandenburg. After all, an international building exhibition has to offer convincing answers with individual project types that reflect the needs of their specific location. Only then do their outcomes become a transferrable commodity. Our ‘unique selling potential’ is the unparalleled landscape of the Elbe islands located right at the beating heart of the Free Hanseatic City of Hamburg.

What can an International Building Exhibition achieve that ‘traditional’ authority-led models of urban planning and development cannot?

It is not the task of an IBA to administer urban development. Instead it is a type of task force whose role is to seek out and pursue the unconventional. It is there to poke its nose in, to address problem areas. In this role, it has the freedom to break loose, to a certain degree, from established fields of responsibility.

The IBA has embraced three key themes in its exploration of future planning concepts for the metropolis: Metrozones (the ‘inner peripheries’ of the city), climate change and the Cosmopolis (the multicultural urban community). How is the IBA coming to terms with this three-pronged approach?

Originally, the Cosmopolis theme played something of a subordinate role, and climate change hardly emerged at all. It is only in recent years that these areas have been finally given their proper weighting and a profile of their own. Because these three themes are inextricably linked by a common thread of mutual interaction, enrichment and influence, each one is an indispensable part of the whole. The social theme of urban multiculturalism is what defines the natural evolution of fracture points that demarcate the different ‘Metrozones’ within the metropolis, while both of these aspects are undoubtedly shaped by the ecological impact of climate change. These intermeshing themes form the underlying tenet of our integral approach.

Until a few years ago, Wilhelmsburg was stigmatised as a district with severe social issues and vulnerability to the risk of flooding. This prompted you to add a further aspect to the agenda – education. How far have you progressed with this endeavour today?

The education offensive was under way in Wilhelmsburg before the IBA, and it will still be going on afterwards. If the IBA succeeds in giving a significant boost to the education process, also by providing it with an architectural backdrop with the Tor zur Welt (Gateway to the World) education centre, then we will have achieved a massive amount. It will have helped to change the perception of education – because there is a vital

link between education and good architecture.

You have established an interdisciplinary network for the IBA and a verified public private partnership between the city, investors and businesses, particularly from within the construction industry. How does this process work in practice?

Through an IBA convention, we have succeeded in establishing a local network that is now beginning to bear fruit. All those involved with construction in Wilhelmsburg have long since become familiar with the IBA. In addition, the aura associated with the IBA attracts new partners from outside such as VELUX, which has launched its own project entitled LichtAktiv Haus.

You are working against the backdrop of a complicated existing building stock, attempting to achieve participative planning from the bottom up, fragmented, artistic, different. What fundamental changes have there been over the past twenty years in terms of working with municipalities and planning authorities?

There have been a lot of changes. The main one is that a sense of orientation has been established again. Twenty years ago we saw a wave of neoliberalism that viewed deregulation as a cure-all, resulting in an ‘anything goes’ attitude to urban planning and development, which welcomed private investment with open arms and with almost no questions asked. What emerged reflected this lack of direction. Today, urban planning has reverted to a clear ethos, not only in the field of ecology but also in terms of aesthetic appeal. There have never been as many competitions initiated as there are today. It was very unusual in the past for architects from beyond municipal and state boundaries to be involved against the opposition from local lobbies.

“We are noticing a shift in terms of construction technology. Smart Material Houses or Smart Price Houses featured at the building exhibition demonstrate how this shift can bring with it a whole new aesthetic appeal.”

Uli Hellweg

Are we building differently today too?

Although the construction industry remains very sluggish, there are exceptions – among which I am naturally including projects with IBA involvement. We are noticing a shift in terms of construction technology. The Smart Material Houses or Smart Price Houses featured at the building exhibition demonstrate how this shift can bring with it a whole new aesthetic appeal. This is already evident today in the designs of our houses.

What is the abiding legacy you hope to leave from the IBA – not only the visual impact of the buildings themselves, but in terms of the impact on the social structure of the district and the ‘planning culture’ building blocks and tools from which Hamburg could continue to profit?

I am hoping the legacy will be a huge one: leaving behind not just the buildings themselves but also a continuation and extension of the appetite for change that has been generated in Wilhelmsburg. I hope, too, that what has been created here will radiate outwards beyond national boundaries to the international building culture. I think the IBA has done an excellent job in delivering these objectives and will continue to do so.

Uli Hellweg has been Chief Executive of International Building Exhibition (IBA) Hamburg 2013 since 2006. Before that, his roles included Chief Planning Officer for the town of Kassel and CEO of Wasserstadt GmbH in Berlin.

Helmuth Poggensee *1947 is
Chair of the Kirchdorf Residents'
Association in the borough of
Wilhelmsburg in Hamburg.



Mr Poggensee, you are Chair of the Kirchdorf Residents' Association. Whom does your association represent?

HP: We represent all the residents of Hamburg south of the Northern Elbe. There are four residents' associations in Wilhelmsburg. Our housing estate, the Kirchdorf Residents' Association with around 650 houses, is the largest. Katenweg, where the LichtAktiv Haus is, forms part of the Finkenriek housing estate.

How long have you lived in this area?

HP: I bought this house in 1983 with my wife. But I have lived in Kirchdorf, in Wilhelmsburg, since 1957. Until I was ten, we lived in the St. Georg quarter near Hamburg central station. But after the war, it became too cramped with three children, so my parents decided to buy a house in Kirchdorf.

When were the housing estates built?

HP: The oldest housing estate, Wilhelmsburg-Ost, was built in 1927/28. That is when they had the idea of populating the hitherto uninhabited island in the Elbe. Our housing estate was built in 1935, for dock workers. They are all half-timbered houses, though exterior cladding has now been applied to many of them so this is no longer obvious. The planners' idea was that all these working-class families should be able to feed themselves, so each plot measures 1,000

square metres, and that includes the plots of semi-detached houses.

Was a lot destroyed during the war?

HP: Yes, I reckon ten per cent of the houses were destroyed by carpet bombing because they were so close to the docks. When they were rebuilt, the original houses were altered quite a bit. For instance, in our house, which was one of the bombed properties, the staircase is now far superior.

In what way have the housing estates changed in recent decades?

HP: The construction has become denser. On our housing estate there are nearly 15 per cent more houses. Many of the plots have been divided.

What about the demographic structure?

HP: Our housing association is getting old. The future is much less homogeneous. My son is thirty years old and still lives with us. But there are a lot of houses with only one inhabitant. Houses are often left to grandchildren, so the middle generation is not well represented on the estate. And while there used to be a lot of dock workers living here, we now find people with a number of different occupations. They have all built generous extensions, some of them quite individual. You cannot call it a uniform housing estate any more.

So is there such a thing as a typical inhabitant?

HP: No, there isn't. People used to have fields, fruit trees and animals, chickens, rabbits, pigs and sheep. But that's all gone. In fact, not so long ago, an inhabitant lodged a complaint about his neighbour's cockerel crowing in the mornings. The complainant even wanted to become a member of the association, but we refused him because he really could not be called a proper member of the community.

What other problems has your neighbourhood had to contend with?

HP: People who have just moved in do not have much sense of community. They cut themselves off and that is a big problem. It diminishes our community, though it is not such an extreme case as in the high-rise developments in Kirchdorf-Süd. The sense of community was always one of our great strengths, especially in relation to important subjects like construction of the urban railway or roads. At one time, the residents were asked to pay for trees to be planted. Something like that can really weaken a community.

What do people like most about their houses?

HP: When you have modified your own house, or extended or modernised it, you are bound to develop a close emotional bond with it. When we moved here in 1957, my father was the first to install a wc. In the '70s and '80s, the whole estate was connected to the

public sewerage system. The community was needed again – everyone helped.

What are the shortcomings of the houses?

HP: The houses are not very energy-efficient. This is now an important topic for the International Building Exhibition (IBA). If people want to do something about it, however, houses will change externally. We all try to do our best. I personally was one of the first consultants on environmental protection in Hamburg, and I fitted exterior insulation to my house as long ago as 1985.

What changes and improvements are you hoping to see from the IBA?

HP: There is a lot happening in Wilhelmsburg and I hope that it will generate a swing away from the negative image. We want to hear some positive reporting about Wilhelmsburg for once.

What is your opinion of the LichtAktiv Haus?

HP: I am delighted with the project. For us, the point is that none of our residents would have gained permission to carry out that kind of redevelopment. The planning department does not approve many extension plans, but many more are now being authorised than in the past. We are proud of our extensions on the housing estate. It is to be hoped that it will now be easier to get through more ambitious plans.





Interview with
Claudia Passlack
& Sven Schult

“The redevelopment makes
a huge difference for us”

Claudia Passlack *1971 and Sven Schult *1972 own the house attached to the LichtAktiv Haus. The two halves of the house were modernised together.



How long have you lived in this house?

SS: We started renting it eleven years ago. I used to live in Barmbek. Three years ago, we bought the house.

CP: An old gentleman used to live next door. When he died, VELUX bought the house from his son.

How has the estate changed since you moved in?

CP: I grew up in this street, just a few houses further down. When I was a child we played in the street a lot. Cars only occasionally drove by. Nowadays, it is a busy thoroughfare.

And the people?

CP: The neighbourliness has always been a big plus point. People look out for each other. That's what it was like then, and it's still the same today.

SS: There is very little turnover. There are widows or widowers living in a lot of the houses. Most of the original residents live here until they die.

What kind of people move in now?

CP: People whose parents have died often inherit and move back. You don't often get new neighbours. Only in the last few years has it become more usual for people from another part of town to come and live here.

Does that change the way you get on with each other?

SS: No. The board of our residents' association is one hundred per cent committed, and they make sure that new inhabitants are welcomed into the association straight away. You soon get to know each other in the local festivities or skittles club.

Did you carry out any alterations to your house before the major redevelopment surrounding the LichtAktiv Haus took place?

SS: No, because we were renting at first. But our landlord had taken out a few walls before we moved in, making the rooms more spacious. Other houses which have the original boxy floor plan are significantly gloomier.

What modifications have you made to your house, and why?

CP: We had in any case planned to insulate our house better. But then VELUX contacted us about the redevelopment of the other half of the semi and asked whether we wanted to carry out the renovation together so that we could get a uniform appearance.

SS: The entire shell of the building was insulated, it was re-roofed, and a couple of new windows were added.

What do you think has improved since the renovation?

SS: There is a huge difference. Before, we sometimes used to have temperatures of 36 degrees in summer. You couldn't sleep up-

stairs at all. Now we just pull the blinds down in the morning on hot days and the temperature doesn't rise above 24 degrees.

Had you thought that it would make such a difference?

CP: We hoped it would, as we had previously wasted such a lot of energy.

SS: Before the modernisation, our gas bill was 180 Euros per month. Now we can have the heating off from April onwards and still maintain a temperature of 21 degrees.

Do you want to make other changes to your house in the future?

SS: Next winter we want to convert the attic. Otherwise it's just minor things.

Is the garden still productive?

SS: At the moment it is a bit trampled on because of the building site. But we do want to plant a few vegetables and fruit trees.

What do you particularly like about your house?

CP: I find it very cosy. What would I do with more space? When guests come we have to improvise a bit, but I don't mind that.

Is there anything else special about it?

CP: There are no straight walls. They are all crooked. You can see it from the borders on the walls. Borders are not a good idea for these houses.

"How can you clean the skylights if you can't afford a professional window-cleaner?"

Claudia Passlack

How do your neighbours like the rebuilding?

SS: A lot of people think that the roof could have been a bit darker. Otherwise, they think it's great.

Are some people copying you?

SS: Many people are insulating their facades. But they are doing it themselves, with basic materials.

And what do they think of the VELUX house?

CP: Opinions are divided. Actually, not one of us who knows what it's like from inside would want to move in. Is it really pleasant to live in an extension open on all sides? You don't always want to draw the curtains. And the open-plan staircase – well, it may be efficient in terms of light and circulation of air, but it wastes a lot of space and is impractical. How can you clean the skylights if you can't afford a professional window-cleaner?

SS: And a lot of people laugh about the bathroom on the street, with the shower and toilet immediately behind the large window.

CP: Some residents also have a problem with the house looking so different from the other houses on the estate. The design for many is a red rag to a bull. You have to know that if one of us requests permission for a car port or an extension, there is always a lot of grief. This kind of extension would never be approved for a normal resident.

Surely it is a good thing if a project like this can serve as a point of reference for future redevelopment plans?

CP: Well, two months ago we requested permission just to straighten our drive, and we're still waiting for an answer.

What is your opinion of all the redevelopment that IBA Hamburg is carrying out in Wilhelmsburg, and work planned for the future?

CP: I hope that it will all be finished on time. My fear is that after the IBA, no one else will be interested in Wilhelmsburg, so projects will remain unfinished and the district will decline again.

SS: I am pleased that they are modernising the train station. It needed it urgently. I really like the modern architecture of the new building. I look forward to seeing the cable car that is planned for the horticultural show.

CP: I can't wait to see the bunker that is now being converted into a green power station. And our mountain of rubbish that is due to be turned into a 'mountain of energy'. Still the question remains of how the projects will be maintained after the IBA.





Interview with
Gertrud Bräuninger

"If something is broken,
I mend it myself"

Gertrud Bräuninger *1927 has lived in her house in Wilhelmsburg for 57 years. She is one of the last surviving original residents of the Finkenriek estate.



How long have you lived in this house?

GB: Ever since the first days of the housing estate. Finkenriek was one of the first housing estates built after the war and we moved in here on 1 July 1954. We were very lucky that it worked out well for us. Before we were able to buy a house here, you had to apply for a place on an estate, and places were few and far between. And because my husband was a refugee from Silesia, we were eligible to apply for a special post-war resettlement loan.

What was your situation at that time?

GB: I was 27. We had three daughters. Our son was born here in the living room in 1957. After the great flood of 1962, Katenweg was the only road in the area that was not flooded. We then took in three relatives for a few years. My husband died in 1966 and since 1983 when the last child got married, I have been living here on my own.

How has the estate changed since it was first built?

GB: In the early days, most of the residents were working class. Only people who had children were allowed to move here. Nearly all the

women were housewives. We had chickens and pigs in the stable. Life is completely different now. And there has been a lot of additional building.

What modifications have you made to your house, and why?

GB: At the beginning we did not have a bathroom, and we only had a privy. To begin with, my husband installed a flushing toilet illicitly. And because we were not connected to any drainage system, we secretly added a second-hand bathtub too. In 1961 I received a retrospective war pension of 20,000 marks. That allowed us to build a veranda in the garden and extend where the stable had been. My husband did everything himself, so we only had to use the money to buy building materials, and food and drink. We also converted the attic and 34 years ago I got a swimming pool in the garden.

Is there anything you would like to change in your house in the future?

GB: No. I am 84 now. All four of my children have a house of their own. And which of the many grandchildren should I leave it to? When I go, it doesn't really matter what happens.

What do you particularly like about your house?

GB: That my children grew up in such a spirit of freedom, at a time when many people did not have a garden.

Is there anything in the house that does not work well?

GB: I don't really know. If something is broken, I mend it myself. And if I can't do it, then my neighbours and children step in.

Are there any special memories or anecdotes connected with your house?

GB: Oh, we had so many wonderful parties and celebrations here.

Do you have a favourite place in the house or in the garden?

GB: My easy chair in the living room, a reclining TV armchair. I do a lot of needlework.

What do you specially like about the area? And what don't you like?

GB: I always say that I come from the beautiful island in the Elbe. We are the biggest river island in Europe. But my children had had enough of Wilhelmsburg, because of the number of Muslims. Some families are the only Germans

sandwiched between Muslims. But we residents identify strongly with the estate. We are the residents' association of Finkenriek.

What is your opinion of all the reconstruction that IBA Hamburg is carrying out in Wilhelmsburg, and work planned for the future?

GB: I am not a person who grumbles; I was always happy when the neighbours put up with the noise of children in our garden. But we suffer from a lot of obstructions due to the IBA.

And what about the LichtAktivHaus?

GB: I don't like it at all. The interior rooms are so disjointed – bedrooms in the old building, living rooms in the extension. The sharp edges on the banisters are impossible for young children.





"At the beginning we did not have a bathroom, and we only had a privy. To begin with, my husband installed a flushing toilet illicitly. And because we were not connected to any drainage system, we secretly added a second-hand bathtub too."

Gertrud Bräuninger



Interview with
Claus Kähler

"We used to be able to see as far as
the Elbe dyke from our garden"

Claus Kähler *1951 grew up in the semi-detached house that later became the LichtAktiv Haus. He now lives opposite and sold the house to VELUX after his parents died.



How long have you lived in Katenweg?

CK: I moved here in 1954 with my parents and my brother, into what was then a new house – number 41. I was three years old. In 1977, I moved into number 36, diagonally opposite, with my partner, who also comes from Kirchdorf, and raised our own family.

How has the estate changed since then?

CK: In those post-war days it was a completely different life. My childhood here was brilliant. We had lots of friends of the same age in the street and we played together outside the whole time. After the flood of 1962, the space behind our garden was banked up to provide an extension of the Finkenriek cemetery. Before that, the countryside was flat and open, and you could see for miles, as far as the Elbe dyke. We kept animals, smoke drifted up from the chimneys. It was idyllic.

Were you self-sufficient?

CK: More or less, yes. We had the basic minimum for all residents – ten chickens and one cockerel. Next to the main house was a stable with a section for the hens. Then we kept rabbits in the garden and had a lot of fruit and vegetables.

What do you like about the estate now?

CK: Its good position. You can be in Hamburg very quickly, and in

Harburg. We are right in the middle, yet it is peaceful and green. And the community here is still very important.

How do you rate the houses?

CK: They give you the space you need and they have a lovely garden. We have a beautiful patio outside and an open fire inside. Quite simply, it's a very pleasant place to live.

Did your parents make any alterations to the house over the years?

CK: In the beginning, four families lived in the house, two above and two below. We lived downstairs, in 60 square metres. When the family above us moved out, we took over the upper storey for ourselves. We got rid of the hens and built a bathroom in the stable. Then my grandma moved in with us.

How did you come to sell the house to VELUX?

CK: When my father died two years ago, I inherited the house and put it up for sale. We already had another house.

How do you like the LichtAktiv Haus?

CK: It's the future. Though it stands out from the other houses in the estate. A lot of people don't like it.

What do you like better about the old houses?

CK: The large expanse of windows in the new house doesn't make it very cosy in my opinion.

Have you made alterations to your half of the semi in the past?

CK: Yes. Originally, our house had an area of 6 × 6 metres, and we added another house of 8 × 12 metres next to it. 50 square metres certainly used to be rather cramped for four people.

Do you have any more building plans?

CK: We would like to improve the house in terms of energy efficiency. We insulated the facade some time ago. I would now like to add a solar power system.

What do you make of the activities of the IBA in Wilhelmsburg?

CK: The projects are markedly improving the bad image of Wilhelmsburg. I am an estate agent. Demand and prices have picked up a lot. But I hope it won't become as smart as Blankenese or Winterhude, for instance. I like its down-to-earth feeling.



“Architecture is by no means a timeless medium – that much became increasingly clear during the course of the 20th century. The late 1960s in particular saw research done into techniques that would allow buildings to adapt to meet the demands made by time. Often this resulted in buildings that were programatically neutral and characterless. The new challenge facing architects is to design for the unknown, for the unpredictable. ‘Form follows function’ is giving way to concepts like polyvalence and semi-permanence.”

Bernard Leupen et al.: Concept of “Time-based Architecture”, 2006

PLAN-
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LIFE



TIME-BASED ARCHITECTURE AND MIXED USE

'Change' has become a buzzword of our time: markets have become volatile, social structures fluid and our ecological future seemingly unpredictable. Yet most buildings are still designed as if nothing ever changes in and around them. There are solutions to this dilemma – but they require design ingenuity, open-mindedness and thinking about longer time horizons from architects and developers alike.

By Jasper van Zwol
Photography by anothermountainman

anothermountainman: lan wei liu, 2006

Stanley Wong says about his photography: "I am interested in the topics of existence and moments that are going to disappear." The photo series 'lan wei liu' was created in Guangzhou in Southern China. It was here, during the property bubble at the end of the '90s, that mammoth building projects were begun, over an area of around 16 million square metres, but never finished. The title of the work this reflects this: 'lan' in Chinese means 'derelict', 'wei' means 'end', and 'liu' means something like 'trend'. Wong's photographs cling hauntingly to the vestiges of the Chinese property gold-rush, and at the same time reflect how the concept of 'lan wei' manifests itself in all spheres of life.

Stanley Wong (born 1960), who is also known under the pseudonym 'anothermountainman', lives and works in Hong Kong as a graphic designer, film maker and photographer. He first made a name for himself in the advertising industry as Regional Creative Director at Bartle Bogle Hegarty (Asia Pacific) in Singapore, and as CEO of TBWA Hong Kong. In 2005, he represented Hong Kong at the Venice Biennale with his photographic work 'redwhite-blue'. He is a member of the Alliance Graphique Internationale, an institution that includes the world's leading graphic designers.

HOW CAN BUILDINGS be designed for the unpredictable, to adapt continuously to changing human needs in the next decades? Most buildings are difficult to change. Architects are not interested. Stuart Brand's book 'How Buildings Learn: What Happens After They're Built' investigates the potential to realise changes in buildings. He writes, "a building is not something you finish, a building is something you start". Nowadays society is changing, life styles are changing and spatial needs are changing. We all know that, but in reality there is too little diversity in housing types and too much repetition in non-flexible zoning plans based on mono-functionality. How can we change the mindset of architects, urban planners and developers?

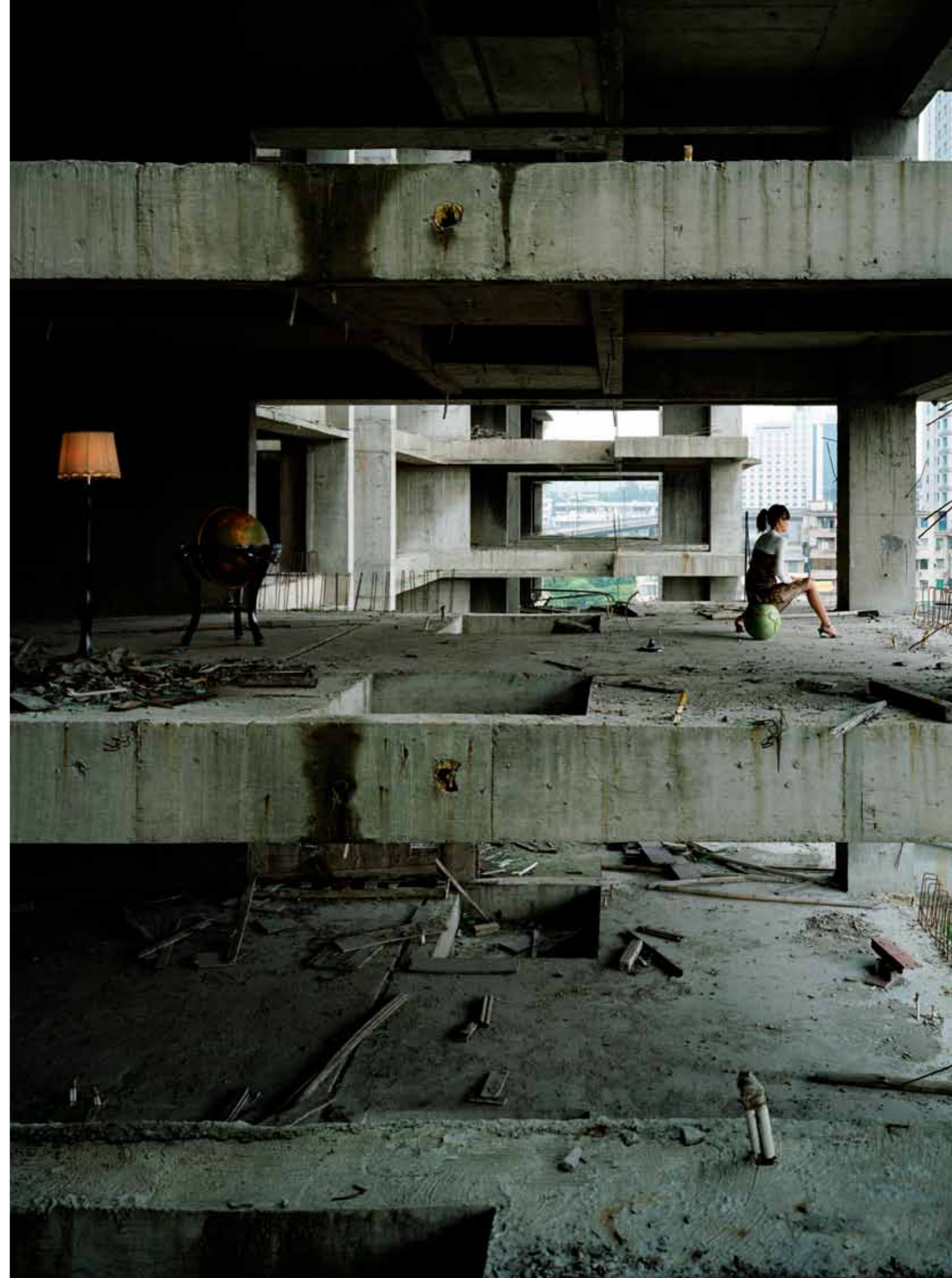
Obviously, the need to economise on production these days places limits on the potential for change in the future. Walls separating dwellings largely coincide with the load-bearing structure, and sound-proofing requirements are achieved through sheer mass. On the other hand, buildings with frame construction or that use facades as load bearing structure, and have flexible party walls, are better able to accept future changes. This reduces the risk of premature demolition if the demand for other programmes and spatial needs should arise. After all, a large proportion of the total wastage of materials still comes from construction and demolition of buildings.

Now, however, our building practice is changing, driven by important issues such as sustainability and the declining

housing market, and by increasingly critical buyers. The latter are more involved and have more choice than they did 20 years ago. We are now witnessing a growing interest in the life of buildings once they have been designed and delivered. Housing projects in most European countries are becoming smaller in scale. Collective private commissioning is growing in importance. The role of the user is being reassessed. What will be possible in the coming 25, 50 or 100 years, and which elements need to be introduced at the design stage to allow for change? Extra floor-to-floor height, services zoned in carefully positioned shafts and floor systems, multiple access systems, facades and a load-bearing structure suited to different programmes – these are the relevant issues that today's design processes should be responding to. This approach would result in time-resistant buildings. It would make thinking about the life cycle of a building an essential part of the actual process of designing.

THE URBAN CONTEXT

Inner city transformations are becoming an increasingly important part of the work of architects and urban designers today. Instead of developing suburbs far from city centres, we are adapting our inner cities. Docks and harbours are moving nearer to the sea, leaving empty areas in Amsterdam, Rotterdam, London and Hamburg which become beautiful and centrally located building sites available for housing, offices and cultural buildings. Former railway lands are transformed





into new places for living and working, as has been the case in Paris, south of the Gare d'Austerlitz, with the area around Bibliothèque Nationale.

Important stimuli for changing attitudes toward the city come from the continuing expansion of small-scale creative industries in re-used buildings, and from increasing mixing of the functions of living and working.

Separation of the functions of dwelling, work, transportation and recreation was at its greatest in the large expansion schemes just before and after the Second World War, which were largely dictated by the CIAM. Those years were coloured by an unshakeable and rapidly increasing faith in mobility. Now we have rediscovered the dynamism of a city with flexible zoning plans, where many functions co-exist in time and space, and the attractions of living in a 'compact city' in which generic buildings are re-used with all kind of functions.

Diversity and mixing of functions can benefit the city in the following ways:

- they help to preserve existing residential environments
- space is used intensively and efficiently
- commuter traffic is reduced
- safety increases and residential streets become more lively
- a more diverse range of commercial and office space becomes available.

FUTURE-PROOF BUILDING TYPES

The building type with the greatest capacity to accommodate varied programmes is what we in the Netherlands describe as the 'Solid', a building that has a fixed outer form but changing content. In these buildings, the primacy of function over form no longer exists. As well as being economically sustainable, they strive to achieve functional, technical and cultural sustainability.

A classic example is the typical 17th century canal house of Amsterdam, which may have housed a variety of different functions over the centuries, operating successively as a patrician house, offices, a shop and luxury apartments. This is made possible by oversized floor spaces, spans, floor-to-floor-height and an oversized

load-bearing structure. Similarly, many old warehouses and factories found a new life as spaces for living and working.

A small number of new Solids have been developed in Amsterdam for a combination of living and working: Solid IJburg (Baumschlager & Eberle Architekten, Vienna) and Solid Furore (Tony Fretton Architects, London). As new 'urban palaces', both these designs aim to achieve cultural sustainability through the use of natural stone in the facades.

A Solid may be resolved into layers of different longevity; the load-bearing structure and the circulation have the longest lifespan of approximately 100 years, the glass facade and windows 25 years, the space programme 20 years and the internal finishes up to 10 years.

By thinking of the different layers of the building as having different life spans, and designing in the potential to accept changes in the usage and distribution of spaces, it is possible to design time-based buildings in a better way. From the viewpoint of sustainability, most design effort for a Solid goes into those components that determine the 'public' quality of the building and that have the longest lifespan. Solids must have a cultural meaning and must be loved, otherwise demolition is inevitable if they no longer meet current standards. However, it seems unlikely that the mere use of natural stone and classical facade designs will achieve this. In the long run, other aspects of architectural quality prove to be more important. This is shown, for example, by Jan Duiker's Zonnestraal Sanatorium in Hilversum – a poorly detailed building that was nonetheless loved by many and was recently refurbished with great effort. Recently, the number of Solid projects has diminished as a result of the financial crisis. They cost more to build than standard buildings, due to the stronger load-bearing systems, higher ceilings, etc. that are needed to accommodate future changes in use. Only by extending the pay-back time of their investments can developers realise more buildings of this type.

Another way to achieve the necessary diversification in compact cities is to design and construct buildings in which the

residents can buy one or more bays, the flexibility being limited only by the access systems, the load-bearing structure, the facade and the shafts. In this way it would be possible to achieve units ranging from around 65 m² to much larger areas, in which living and working can be combined. This type of building requires a careful system of piping and equipment. One example of this building type is the Rotterdam project Schiecentrale 4b, by Mei Architects and Urban Planners. In this slender and tall building, the upper eight floors contain living and working units in varying sizes that can be combined flexibly and changed over time.

A new tendency in the renovation of old housing blocks in the city is to restrict the work to the carcass, including the facades. Inhabitants can then manage the 'infill' themselves in accordance with their own budget, taste and time scale. Projects of this type, known as Eén Blok Stad, have been built in Amsterdam (Marnixkade) and Rotterdam (Oude Noorden, Oude Westen). For young, first-time homebuyers with different spatial needs from those of a standard family, this makes the first steps easier. They need not 'finish' their home immediately, but can bring it to perfection over time. On the other hand, older people can stay in their homes longer by adding appropriate facilities. One new development is of small-scale elevators (taking up roughly the space of a WC) that can be added to existing houses at relatively low cost.

Living spaces should also be redefined. Houses should have more large undifferentiated big spaces rather than spaces that have been determined according to the supposed needs of the 'standard' family. Large, undifferentiated spaces can accommodate a family, but also, for example, a single person with a start-up company. The service spaces and fixed elements such as the staircase and bathroom should be concentrated in one area, so that more space is left free for use by different life styles.

REQUIREMENTS OF A CHANGING SOCIETY
What are the developments in society, the changes in user demand and in our urban

fabric that require new strategies for the way that buildings are designed and built?

Changing lifestyles and the instability these bring to the way dwellings are organised

New lifestyles generate new demands for a diversity of groups. For example, 54% of households in Amsterdam consist of people living alone. Furthermore, people live longer and there are fewer children per family than in past decades. There is an increasing number of divorces and a growing need for storage. People are working more and more from home, assisted by new communication technologies.

The current construction market, with its constant repetition of three-room apartments for the nuclear family will, in the long run, offer few opportunities for other living arrangements and lifestyles with their various combinations of living and working. Therefore more diversification and adaptability in terms of dwelling sizes and configurations are needed.

The unstable and rapidly changing market for office buildings

Contemporary buildings and the way they are designed and built are unsuited to our rapidly changing world. Even before the construction of a building starts, a developer often has to change its specification. This gives rise to the need for buildings without a dedicated usage, which could contain homes as well as offices within a permanently flexible system. Or buildings in which uses are easy to change. Only in this way can we avoid long-term vacancy or demolition of buildings – an imperative precondition to achieving sustainability.

The increasing tendency towards mono-functionality in new residential districts, business parks and industrial estates, resulting from a rigid separation of functions based on a non-flexible zoning plan.

Industrial estates and business parks without a mix that includes housing fail to contribute either to a secure living environment or to a dynamic cityscape. Flexible zoning plans, on the other hand, can respond more quickly to changing circumstances.

Increasing mobility and the problems this causes for commuter traffic.

Stimulating home-working potentially reduces the number of traffic jams during the rush hour. In Japan and China, SOHOS (Small Office-Home Offices) are a commercial success. They provide a more dynamic type of collective housing, as well as better spatial quality within the dwellings. (e.g. Jian Wai SOHO in Beijing, designed by Riken Yamamoto).

THE CHALLENGE AHEAD

I mentioned previously that many buildings are too inflexible to adjust appropriately to the demands of the near future. There is a long-established history of buildings having to change with time. Even historical monuments have long been the objects of progress and change. The Palazzo Pubblico in Siena, for example, was constructed over a period of 500 years. Our times, in contrast, are much more dynamic. In order to react to this continuous pressure for change, we therefore need buildings with a higher accommodation capacity, or temporarily demountable buildings that have lower investment cost and result in less waste of materials. We ought to design buildings for a period that is defined in advance: 5, 10, 50, or 200 years. I once designed a series of kiosks whose lifetime was defined in advance as 15 years. For these buildings, I used the techniques and the materials of truck manufacturers, because that is the average age of a truck. As a result, the kiosks were easy to disassemble after their short life.

We ought to design buildings that are polyvalent, and in which flexibility is achieved without the need for building work; buildings that have more neutral spaces to allow diversity in use, where occupants can create their own environment with sliding walls and moveable furniture.

We ought to design buildings that are easy to change, on both the inside and the outside. Buildings that have a carcass that is partly separated from the interior have a larger capacity for accommodation. Hospitals are examples of buildings with highly dynamic changing demands. In

large hospitals, in particular, technological and social development is proceeding so fast that there is a continuous need for construction activities.

But it is not only for new buildings that a new mindset is necessary. We also have to focus on the enormous stock of existing buildings. Due to the financial crises of recent years, the volume of new construction is declining. Some people even claim that we have enough square metres in existing buildings to satisfy our needs for the next 50 years. Fortunately, ever fewer old industrial buildings and offices are demolished. In Dashanzi, Beijing, a former industrial quarter was changed into the Art Quarter 789 within a few years, thus enabling an artistic rebirth. In 2002, artists and cultural organizations began to divide, rent out, and re-make the factory spaces, gradually developing them into galleries, art centres, artists' studios, restaurants and bars.

The change of these buildings into dynamic places for living and working and a breeding ground for the creative industry is an example that should inspire us to design equally adaptable buildings as signs of our time.

Jasper van Zwol is Assistant Professor at Delft Technical University, Faculty of Architecture, Chair of Architecture and Dwelling, as well as an architect in the office van Zwol Architects in Delft. Together with Bernard Leupen and Rene Heijne, he published the book *Time-Based Architecture* in 2005. Further publications by Jasper van Zwol are *Time-Based Architecture International, Volume 3* (2008) and *Het Woongebouw* (2009). In 2006, Jasper van Zwol was Keynote Speaker at the conference *Mixed-Use Schemes* in London.

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EVEN BAD NEWS CAN BE BENEFICIAL

Every architect knows how to design a house – but very little is still known about how residential buildings actually perform in use. Initiatives such as the Usable Buildings Trust in the UK are trying to change this by developing new planning and learning processes that could greatly improve the quality of our built environment.

Interview with Fionn Stevenson & Bill Bordass
Photography by Lars Tunbjörk
Interiors by Jacob Hertzell

Professor Stevenson, Dr Bordass, you are both active in the field of Post-Occupancy Evaluation (POE) of buildings. While interest in POE has slowly but steadily grown in the non-residential sector, we still know very little about how residential buildings actually perform in use. Why is this?

FS: One reason is that it is quite difficult to do a systematic post-occupancy evaluation in the field of housing. Often only specific aspects of feedback or specific types of housing (such as passive houses) have been investigated. It is relatively easy to do a rather superficial mass survey of residents or a mass monitoring of homes, but difficult to get the occupants to agree to everything that really needs to be looked at in depth. On one hand, you have to measure their energy use and internal environment, which not everyone will accept; on the other, the actual usability of the home needs to be assessed. This means that we have to enter the homes to look at how they are being used, which is much more of a privacy violation than in an office or public building. There are also huge variations in the demographics of residents, and the typologies and tenures in housing. With this tricky task, we are still at an early stage in discovering how best to deal with this level of variety.

How has interest in POE in the housing sector developed so far?

FS: Historically, there has been little need for the private housing industry in the UK to evaluate its products once they are sold.

This is slowly changing. Some developers – particularly the larger ones – are now waking up to the fact that POE might give them a leading edge in the market. Interestingly, they are doing so in the middle of a recession in order to be better prepared for the time afterwards. Recently, there has also been encouragement through government funding and events to get developers and designers engaged with this kind of work.

The difficulty, I think, is not so much the housing developers that have resources, but all those that don't have any margin to invest in this kind of knowledge transfer.

What attitude do architects and engineers show towards the subject?

FS: My experience is that housing developers are often more prepared to be honest about what is happening with their products than architects are. This came as something of a surprise. Many architects seem to be rather defensive, which may have something to do with the current market situation: developers are increasingly commissioning architects for multiple portfolios, so architects are looking for repeat business with the same client. This makes architects and design teams nervous about things not performing, as they are afraid that this will damage their reputation and they will not be hired again in the future.

BB: Engineers seem to be better able to deal with bad news. In the 'Probe' studies

**Lars Tunbjörk and Jacob Hertzell:
Dolls' House, 2011**

The work of Swedish photographer Lars Tunbjörk is, to some extent, close to satire, achieved by allowing social reality and the ambitions of his fellow men to clash together. From Ikea to Chinese nightclubs, from those ubiquitous shopping malls to the interchangeable office interiors of our time – Tunbjörk has visited (nearly) all the places where people voluntarily put themselves at the service of the consumer society, and captures their behaviour in revealing shots full of biting humour. His agency 'Vu' once described the photos as "both hilarious and deeply sad".

Social reality and representation, human ambitions and hopes for the future are also the subject matter of the doll's house that Lars Tunbjörk photographed for Daylight/Architecture. The interior of the house was designed by the Swedish architect, interior designer and stylist Jacob Hertzell. It presents examples of what living looked like, and will look like, in three different eras – in 1960, today, and in the year 2050.

Lars Tunbjörk (born 1956) began his career as a press photographer with the Stockholms Tidningen and other Swedish papers and magazines before making a name for himself internationally as a freelance art photographer with his books 'Landet Utom Sig' (Country Beside Itself), 'Office' and 'Home'. Lars Tunbjörk now lives in Stockholm and is a member of the French photographic agency 'Vu'. In 2005, he received the World Press Photo Award in the 'Arts and Entertainment: Stories' category.

Jacob Hertzell studied art theory and the history of ideas at Stockholm University and studied design at Beckmans College of Design in Stockholm. He runs his own interior design business and works as a stylist for various magazines, including The New York Times, Vogue Living and Architectural Digest.



"[...] There is little housing building evaluation. Unfortunately [...] lessons are still not learned, in spite of the crying need to close the feedback loop and get our buildings performing radically better.

from Adrian Leaman, Fionn Stevenson & Bill Bordass (2010):
Building evaluation: practice and principles, Building Research & Information, 38:5, 564–577

we did between 1995 and 2002, where we investigated the performance of twenty recently-completed buildings and published the results, we had two potential lawsuits. Both were from the architects, although most of what we had been looking at was the engineering.

FS: I think this also has to do with the education of architects. They are trained to deliver a product but don't have much understanding of the production process of buildings – or of their actual use. Some of us at the Usable Buildings Trust are now trying hard to make post-occupancy evaluation part of the curriculum. Architects must understand that part of their service consists of revisiting what they have produced, and of evaluating it.

What benefits are there in building evaluation – particularly for designers?

BB: When we started broadcasting results from POE studies in the 1980s, the professions treated them as if they were radioactive! During the last five years, however, some leading practices have got more closely involved and are facing up to the fact that their buildings often do not perform as intended. They were thinking, "If we don't tackle this problem, we should not be surprised if we lose our market position in five or ten years." Interestingly, publishing even bad POE results may have beneficial consequences. For example, two leading engineering firms in the UK both collect user feedback. One has been publishing the results even if they were poor, while the other has not. As a result, the first firm has gained credibility and reportedly taken market share from its competitor.

Imagine communicating bad results is not a straightforward task?

BB: We have been doing it successfully for quite some time. The important thing is to use the case study of the particular building to illustrate what is going on more widely, so that one can help everybody to understand what has happened and how things might be improved. Those directly involved in the project must also be thanked for allowing the results to be published. The problem comes

when other people – media, politicians and bureaucrats – use the information to produce sensational articles, blame the participants or 'shoot the messenger'! The feedback – good and bad – must be seen as a learning experience, and essential if the industry is to improve its products and services. It also helps clients and government to know what to ask for.

FS: Some interesting work is being done in the UK to try and overcome this problem, the Carbon Buzz website www.carbonbuzz.org for example. Here designers can report anonymously the energy performance and CO₂ emissions of their buildings and compare design predictions with actual outcomes. Here at least, measured data is made public but we cannot yet get to the 'stories' behind these results.

BB: Carbon Buzz is developing. Participants can remove the anonymity from their results if they elect to, so in due course it will be showing the performance of named projects. The website is also being developed to incorporate links to supporting information when available. Behind every good result there is a context that needs to be understood, and often this context is closely related to the particular individuals who have been driving the project.

In recent years, the Usable Building Trust has helped to develop a process called Soft Landings in order to better prepare buildings for their actual use. Can you briefly explain how Soft Landings works?

BB: Soft Landings is designed to run along any procurement process, for any building work in any country. It aims to make better connections between the production of a building and its operation, and to get client, design and building teams to look much more at outcomes, not just specifications. The *Framework* document, published in 2009, identifies five main stages:

1. Inception and briefing, in which more attention is given to the anticipated outcomes in relation to the performance of other relevant buildings
2. Expectations management during design and construction, reviewing

progress in relation to the original intentions

3. Preparation for handover, helping to ensure better readiness for occupation by both the building and its occupiers
4. Initial aftercare, where the occupier is supported, systems tuned and feedback obtained
5. Longer-term aftercare and POE once the building is working normally.

Case studies of Soft Landings in action reveal the benefit of having client support from inception. Even before they are appointed, all members of the design and building team know they will be working on a Soft Landings project, with more focus on outcomes and follow-through after the building is completed. Everybody can then organise their work accordingly; it is more a question of organisation than more time and money, at least until Stage 5. Somebody will need to pay for the longer-term aftercare and POE, usually the client directly, as the construction contract will be over by then.

As the project develops, we have found it helpful for there to be a person – we call him or her a 'champion' – who maintains a focus on the outcomes and can challenge the project management, which otherwise tends to concentrate more on the cost and speed of delivery. The champion is not a new team member – it is a role that can be taken on by somebody already there. Indeed, a project can have several champions (one each for the client, designer, builder and, where possible, the eventual occupier). What is important is to maintain the focus on outcomes.

What do you consider the main benefits of Soft Landings?

BB: Buildings and refurbishments that cost no more to build (and quite probably less), cost less to run (in one school, electricity consumption was halved) and perform better for their occupiers. If we find a problem when doing a POE in a new building, its cause is seldom a shortage of money – it is not spending that money in the right places. A better result would have often have been achieved by making things simpler, paying more attention

to detail, and providing some aftercare to make sure that things worked and that any lessons learned were incorporated in future designs.

More than anything, the process entails a change of attitude in mind – to see the job of producing a building as not just finishing it off as a physical object, but in getting it to work. Apart from the POE phase, it does not usually mean much more work, only more concentration. The initial learning period will of course take some time and money for any organisation. Ideally clients would pay for it, but many are reluctant. However, some designers and builders are now realising how important it will be for them to deliver more predictable outcomes, and so are funding work on Soft Landings and

POE from their marketing, research or training budgets.

Let us get back to the evaluation of housing. From the studies conducted so far, are there any general findings about the preferences of occupants, and about what 'works' and what does not?

FS: The overriding aspects about a home are where it is and how much it costs. A good location and a good price usually mean a big 'forgiveness factor' from people buying or renting, which makes up for other, less favourable aspects. The next thing for residents is the 'feel' of the home, which includes design issues such as spatial quality and daylighting. Once these are satisfied, people become increasingly concerned with usability, which relates to

controls but also to functionality. For example, residents are often disappointed with the kitchen layout. However, probably the most frequent complaint is about storage space: there never seems to be enough in modern homes. Although everyone – housing developers, architects, users – tends to agree, the problem persists, probably because additional storage space obviously means extra costs.

What did you find out about building services and their operation?

BB: In both residential and non-residential buildings, increasingly complex technologies are being imposed in the name of energy efficiency. In practice, the complication often gets in the way of basic good practice, and performance



suffers. There seems to be a problem with the promise of technology, the lobbying power behind technology, and people's fascination with technology, that gets in the way of basic functionality, usability and fitness for purpose.

FS: POE studies in the residential sector show that people no longer understand intuitively how to run their home efficiently. Many do not even bother to adjust their thermostatic radiator valves, or even know what the thermostat scale from 1 to 5 means. Likewise, they do not understand that the systems have different summer and winter operating conditions. It is quite astonishing how many people do not use the controls of their heating or ventilation systems. A number of demographic factors also come

into play here. One is age. Younger people tend to be much more able to deal with the controls in their home, while the elderly just give up. There may also be a gender issue: in many households, it is the man who takes 'control of the controls', while women can be a bit more shy in dealing with these things.

Does the industry react to these issues?

FS: The manufacturers of 'active' technologies such as boiler controls tend to be at least aware of the issue. However, in housing there are often major problems with the usability of standard, 'low-tech' building elements such as windows, which one would hope to be able to take for granted. On several occasions, for example, I have been able to remove a tilt-and-turn win-

dow completely from its frame! In other words, housing occupants tend no longer to have sufficient control over their environment, or be able to operate building elements in a secure way. There are many usability problems of this kind in homes now. BB: What really worries me is that if some designers and manufacturers find that occupants cannot operate their products properly, they start blaming them for stupidity. Instead, they should examine the products, designs and services they are providing.

FS: We were recently involved in an evaluation of products used in a major housing project. 40 manufacturers who supplied their products were interviewed. Only about a quarter of them had fully tested their products in situ on ordinary people!



"The architect has [...] a range of ways to gain knowledge: he can use his own experiences and his reflections on his experiences, his observations of the behaviors of other users, the conclusions he draws based on the long-term material consequences of these behaviors [...] The benefit of such an individual engagement with very different types of buildings is beyond all question [...]"

Riklef Rambow and Jörg Seifert in: Graz Architecture Magazine 03, 2006

Many window manufacturers, for example, had not tested their windows in situ on people at all, or only on workers in their own factory. Surely this is not a good test because the factory workers will know too much about their product – they may also not want to displease their employer!

Does it make any difference to usability whether a home is specifically designed for its occupants?

FS: Not really, because the involvement of the end-user tends to be limited to the choice of only a few products. A lot depends on the usability of the products themselves and their fitness for purpose as part of the overall design, e.g. controls located in the right places and not hidden away. If they are usable, it is irrelevant whether the occupant has gained a 'sense of ownership' by being involved in their specification, provided the design intent is made clear.

The handover process can be as important for usability as the specification itself. Here a lot of training needs to be done, particularly regarding new technologies. Quite frequently the people who show residents how to use their ventilation and heating systems do not themselves understand the design intent or how to operate them properly. This is a real worry.

How much, and what kind of, adaptability and flexibility do users expect from their home, and how much is recommendable?

FS: Modern UK housing has very little flexibility or adaptability. Our feedback is that residents would like much more open plan, much more 'flow' in their home, and the possibility to use their personal technology wherever they want. Neither the government nor the housing industry has yet got this right. In the UK, at least, there is still an old-fashioned understanding that someone working from home will need an 'office' – whereas all you need in this case is flexibility! Occupants really value being able to use different spaces in multiple ways. Yet the housing industry is still a long way from meeting this market demand with their products.

BB: The most flexible homes in the UK, built at high density, could be the urban

terraces constructed in the eighteenth and nineteenth centuries. I live in a house of this type myself and find it extraordinary how adaptable the designs have proved within very simple plans. You tend not to get that in modern housing – both the spaces and the technologies constrain you.

FS: I agree. In the UK, space standards have been reduced, to the extent where they are one of the lowest in Europe. That has 'designed out' a large degree of forgiveness and flexibility. Nowadays, you can only use a kitchen as a kitchen, but no longer as a kitchen/dining room. Flexibility is also closely related to storage. If you have some extra storage space, you can reconfigure your home much more easily. If you do not, it is quite hard to.

Historically, there has been – and still is – a distinction between adaptable buildings that rely on moveable elements and buildings with inherently flexible spaces. Which approach has more potential in your opinion?

FS: Adaptability, as we know it from prefabricated buildings with moveable walls or floors, is rarely actually exploited by residents. For real flexibility, it is more important that the rooms themselves are generous enough for the user to reconfigure them without the need for changes in the building fabric. This involves far less contingency, there is no need for different trades to be involved, and far fewer restrictions apply. For me as an architect, the way forward is, therefore, really to intensively reinvestigate the way in which space, in and of itself, can be used in different configurations.

Dr Bill Bordass is a scientist who started his career in the building sector at RMJM London, where he became Associate in charge of building services, energy and environmental design. He then set up William Bordass Associates, which studies and troubleshoots building performance in use. He is also research and policy adviser to the Usable Buildings Trust, a charity dedicated to improving building performance. In 2008, he received the CIBSE low-carbon pioneer award.

Dr Fionn Stevenson is Professor of Sustainable Design at the University of Sheffield and Director of Technology in the School of Architecture. She started her career as a housing architect, but quickly found out that she needed to engage more with the occupants of her buildings to find out if they really worked in practice. She now specialises in building occupancy performance and feedback research and is an advisor to numerous government agencies.





MULTIFACETED LIVING

Today's multifaceted society has generated a diversity of previously unimagined lifestyles and stages of life. Yet in terms of residential construction, the situation has remained pretty much stagnant during the last 50 years – with very few exceptions. Attempts at solutions have been few and far between, though they do exist: cybernetic structures could show the way to a style of architecture that would satisfy the needs of people's life cycles.

By Günter Pfeifer
Photography by Lars Tunbjörk
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DIFFERENT PARTNERSHIPS during different life phases, patchwork families, single parents with one or more children, young singles, older singles, and people sharing accommodation – the social reality of these myriad lifestyles cannot possibly be reflected in residential construction. Singles, depending on their economic situation, need small homes in an urban environment; young families need inexpensive houses with three or more rooms in a child-friendly neighbourhood. Career-minded professionals, on the other hand, are looking for spacious apartments in the city; and so are the 'best agers' who need space for their lifetime collections of treasures. It's only the older people, sometimes disparagingly called 'no gos', who have to make do with smaller homes as they reduce the number of their treasured possessions – and not just due to external pressures. However, these people are mostly constrained by other conditions relating to the term 'accessibility': provision of lifts, wide doors in all rooms, walk-in showers, disabled toilet facilities. This fast-growing section of the population ideally wants to be close to friends and neighbours. And if it were to prove possible to have one's own accommodation connected to a small apartment for a carer, or to find a shared home with a kindred spirit in the same situation, of course, that would be extremely lucky. All these scenarios can only be brought to life by special types of accommodation, which are rarely available in the right places.

You could just ask, "Why don't you just move, if your circumstances have altered?" To which, in reply, you could just pose another question – "Why should I? Why can't the apartment be adapted?" And this is invariably the crux of the problem: there's no option for variation or adaptation in housing, not even an approximation to the change in people's circumstances. We still build our housing using structures that we know full well will only last for certain phases of life.

FROM LIVING SPACE TO LIVING STRAITJACKET

It is worth having a look back in history – it was different then, albeit under the prevailing circumstances. Housing built during the years of rapid industrial expansion at the beginning of the 20th century created styles of housing that are still very popular today, these often being in the major cities, but also in medium-sized towns. Quite apart from the generous proportions of these apartments, around 120-140 square metres, it is noticeable that the floor plan had a basic characteristic: most rooms had no specified use. There was no specific bedroom or children's room, and no grand living room. Of course, the structure had to specify a definite place for the bath, toilet and kitchen, though the latter was usually just as big a room as the others. There was usually a large and impressive hall with equally large rooms opening off it, each with a door connecting it to the next. An astonishingly varied layout was possible within the apartment. This is be-

"Each section in the cycle of life represents its own microcosm with its own specific style of living. In a society where people's life expectancy is so long, styles of living are determined to a considerable extent by these changing life phases, and are less and less simply a question of social background [...], money or aspiration [...] Styles of living change with each life phase – people don't."

Horst Opaschowski in:
Besser leben – schöner wohnen?, 2005

“Every new residential building and renovation whose builder is not also the later user of that building is a prognostic experiment, a physical proposition about how we wish to live – and how we should live. We have seen many successful experiments, and a great many failures. [...] Our toolkit of prognostic instruments is targeted at recognising the market trends in a predominantly unchanging system of classification, and then giving the market – with or without state assistance – what it needs. But if the future is determined by market failure and disruption – you could call this a paradigm shift – this method is largely useless. We should not think in terms of supplying to the housing market of the future; we must shape it.”

Armin Hentschel in:
landschaftsarchitekten 3/2010

cause one of the rooms opened directly on to the staircase, allowing one or several rooms to be combined as a separate unit. The external access made it possible to use the room(s) for a small business, or to sublet them. Another pleasing feature was that the floor heights differed in these apartments: the height of the inner rooms was usually more than three metres, sometimes as much as four, allowing the light to reach right into the centre of the apartment. The inner hall was often used as a dining room, because it was so big, and you could even have breakfast in the morning sunshine, depending on the location.

In the hectic rebuilding effort after the war, and in deference to social justice, this principle fell foul of another principle – the patriarchal floor plan. The grand living room as the largest room in the apartment, the kitchen as ‘housewife’s workplace’ (this was a genuine description given in Neufert’s instructions for making floor plans), parents’ bedroom of the usual dimensions, room for a double bed plus frame. The smallest room was the children’s room, often no bigger than 8 square metres. For economic reasons, the living space was shrunk to a standard 75 square metres for three room apartments, and 85 square metres for four rooms. What is more, the floor heights were now reduced to a clearance of 2.5 metres.

It is quite remarkable, even ludicrous, that this special structural style of residential building has become so bogged down that hardly any significant changes have been made in the past 50 years. It is true that ‘accessibility’ has entered the stage, and the requirements for housing for older people and the disabled are now firmly embedded in the corresponding laws. However, these regulations have not triggered any fundamental change in structure. Economic constraints, the usual attitude of property developers – ‘We know what the market wants,’ – and the straitjacket of public subsidy have all conspired to rule out a fundamental re-evaluation of residential construction.

WANTED: A STYLE OF BUILDING FOR EVERY WAY OF LIFE

You can safely say that life cycles are not reflected in residential construction. This then leads us, for various reasons, to the demand for new, radical styles of living, styles of living that allow individualism to re-invent itself, making it possible continuously and flexibly to establish different communities corresponding to people’s changing circumstances – and all this without large-scale rebuilding and relocation.

So what would these apartments look like?

If we learn from other cultures, combining the old with the new, we can come up with totally new parameters:

- Floor plans to specify only bath/shower/toilet and kitchen. All other use is space-neutral in terms of sunny position, light, proportions and size, and therefore non-specific.
- Units within the apartment must be combinable and connectable. This is achievable through additional access and installation of housing technology.
- Double coding of interactive spaces. Access rooms and linking rooms can be used in a versatile way for living and for communication, and promote interaction within the community.

The self-contained apartment no longer fulfils today’s requirements. We now give different forms of expression to community and intimacy.

In the future, the structure of buildings will have to provide a totally different kind of networking. In order to do this, we have to dispel all the old notions of a convertible floor plan, since this kind of integration always involves extensive construction activity. On the contrary, this reconstruction has to be content with opening a door that has until now been closed, if necessary by just taking the door off its hinges. Communication networking using Wi-Fi may serve as an analogy to this, which has been part of the structure of the networked society for years now, and has revolutionised daily life. By transferring this analogy, we give

rise to differentiated levels and spaces, creating within the physical structure areas a whole range of diverse shades between intimate and public space. These can be used variably, if required, or fixed. In this system the self-contained apartment is just as possible as an open mesh of interactive spaces and backrooms of different sizes and with zones of different densities. The size of the structure of the building can be arranged in such a way that groups of different sizes can be generated, with their different requirements and focus – social, cultural, sociological. These systems are cybernetically coded, which means they are interdependently networked with everything, interwoven, and mutually dependent.

The same thing applies to the strategy of renovation of old buildings. You could count it fortunate that the buildings constructed during the boom years around the turn of the 20th century have avoided exterior insulation and finishing systems, thanks to their unusual facade design. The parameters described above can also be applied to extensions and additions to the layouts of old buildings. So measures to collect and save energy could be incorporated into annexes and extensions with integrated ‘energy gardens’, and in voids or roofs, to provide power for old buildings. These extensions could ideally be set up in such a way that they work like a system of communicating vessels – each one interdependent – allowing both old and new to become a typological and energetic entity.

STIMULATE DEMAND, DON’T MISJUDGE IT

These structures cannot be created if we rely on the biased ideas of blinkered developers and construction companies. We have to think outside the box. As Steve Jobs, the lateral thinker behind Apple, once philosophised, “it’s not the consumers’ job to know what they want.” That’s the way to invalidate those endless references to the conditions of the housing market. Stimulating demand is the secret behind the commercial success of Apple, and the automotive industry too. They succeeded in first generating desire, in or-

der then to satisfy that desire with their own products. When you consider that the car has long fulfilled other functions than mere mobility, and that in addition to exclusive and efficient transport, it conveys hidden emotions – prestige, power, independence, modernity – you can take the idea to its ultimate conclusion. Nomadism is nothing more than a longing for freedom and a lack of ties. But the reality is a sedentary rootedness. In the interplay between a longing for nomadic freedom and putting down roots, the automotive industry provides the freedom and the housing economy the element of constraint. The feeling of being at home has nothing to do with moving around or decamping; it’s quite the opposite: refuge and retreat. Obviously, we need this contradiction. But does this really mean that the types of housing we live in therefore have to remain stuck in an obstinate mire, and reject any possible development as an unrealistic utopia?

This may all sound like so much theory. But models of this type can be seen in the Netherlands, and in residential construction in Switzerland, though not yet with all the consequences of the above. These deliberations have been under discussion by planners for quite some time – not least in the Department of Design and Residential Construction at the Technical University of Darmstadt, where the author of this article is professor. The challenge for architects and engineers is to develop complex hybrid cybernetic systems. The objection that we cannot afford these is not a convincing one. If we take our efforts in relation to sustainability seriously, and then compare these with current standards for residential building, the reality paints a pretty bleak picture. Apart from one very remote and extremely slender silver streak on the horizon, there is no vision, no new ground, hardly any curiosity, and no experimentation. At least in Germany.

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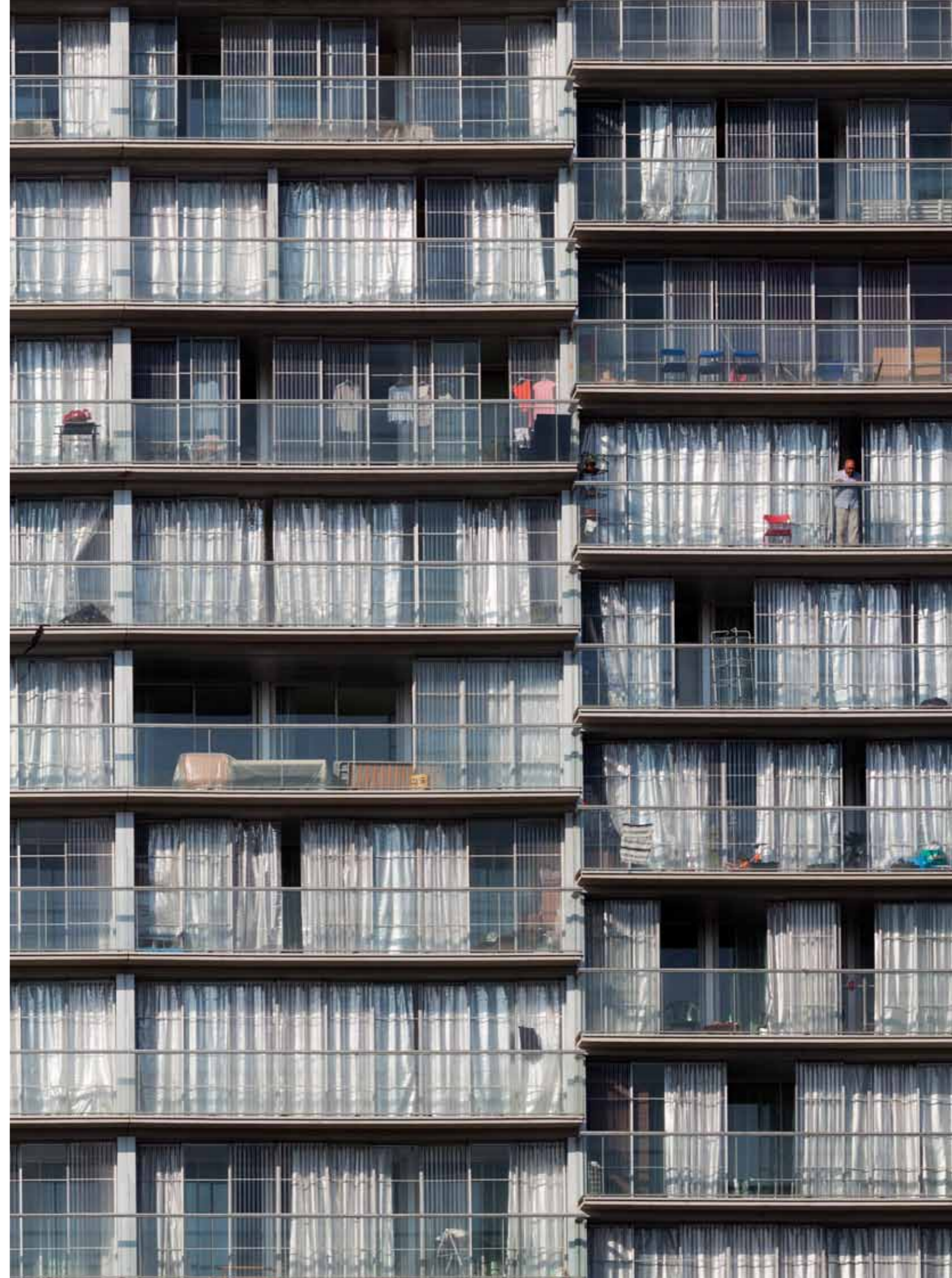
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