Designing Buildings for Change

Guest-Edited by
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Alex Lifschutz studied Sociology and Psychology at Bristol University (1971–4), where he undertook research into cognitive psychology. In 1974 he transferred to the Architectural Association (AA) in London. He joined Foster + Partners in 1977, where he worked on the Hongkong & Shanghai Bank Headquarters from 1981 to 1985. In 1986 (with the late Ian Davidson) he formed Lifschutz Davidson (now Lifschutz Davidson Sandilands). He served on the AA Council from 2002 to 2007 and was its President from 2009 to 2011.

Lifschutz Davidson Sandilands has an established reputation for innovative design and has won numerous awards, including RIBA London Architect of the Year in 2015. The practice is based in Island Studios, a 19th-century building that exemplifies the philosophy of ‘long life, loose fit’, having been used variously in the past as a laundry, and the offices and recording studios of Island Records. The firm’s work is located mainly in the UK, but also in Europe, the US and Hong Kong. Its projects span a broad spectrum of types, uses and scales, including housing and commercial schemes, department stores and restaurants, bridges and public buildings, urban masterplans and product designs.

Lifschutz’s particular interest lies in the ability of design to create environments that are responsive to change. He has developed construction and furniture systems that empower users to alter buildings both in the initial construction process and throughout their life.

Lifschutz Davidson Sandilands has acquired experience that comes rarely to architects, of working consistently in one place – London’s South Bank – on a series of projects that have transformed it from a twilight district into a thriving part of the capital. Lifschutz has been closely involved in the regeneration of the area since 1989, working for both the local community and landowners. South Bank projects include: the Hungerford footbridges (2001), now London’s busiest pedestrian river crossing; the conversion of Oxo Tower Wharf into co-op apartments, craft workshops and a spectacular rooftop restaurant for Harvey Nichols (1996); and Palm Housing Co-op, which won the Royal Fine Art Commission Building of the Year Award in 1995. The most extensive scheme was an Urban Design Strategy, completed in 2000, which set out a detailed plan for new landscapes and buildings in the area, many of which were subsequently designed under the practice’s leadership.

Exemplifying the range and diversity of the practice’s work are other recently completed London projects including: JW3, a secular meeting place for London’s Jewish community (2013); a flagship bookshop for Foyles, in Charing Cross Road (2014); and the headquarters for Bonhams auction house (2015). In 2016, with artist Leo Villareal, Lifschutz led the team that won the Illuminated River competition to reimagine the lighting of 17 central London bridges.

Since 2007 he has been Chair of Body & Soul, a charity devoted to helping children and teenagers living with HIV or affected by other adverse childhood experiences such as late adoption or attempted suicide.
Cedric Price, 
Fun Palace: interior perspective, 1964

Price said ‘an overwhelming desire to “get it right the first time” in architecture and planning encourages the safe solution and the dull practitioner.’ His work foreshadows Archigram and the High-Tech movement. Quote from Cedric Price, The Square Book, Wiley-Academy (Chichester), 2003, p 54.
LONG LIFE, LOW ENERGY, LOOSE FIT.
The imperative for adaptable architectures is even more pressing than half a century ago when these ideas were first conceived in Europe and the US. In 1972, in prescient anticipation of an environmental crisis, then Royal Institute of British Architects (RIBA) President Alex Gordon delivered his paper on ‘long life, loose fit, low energy’. Now, with the intensification of extreme weather patterns, it seems that we are in the midst of that crisis. ‘Our predecessors,’ said Gordon, ‘left us with a stock of buildings, which generally have been pretty adaptable and served for a long time. One suspects that many of our buildings are only going to be really suitable for the functions for which they are designed for a comparatively short time.’

But how to make architecture with the ability to flex, yet also capable of meeting the challenges of the modern era: unprecedented population growth and urbanisation, social and technological change? John Habraken was one of the first to identify a sustainable architectural strategy in the early 1960s. In his book Supports: An Alternative to Mass Housing (first published in 1962), he argued that the external form of a building should be decoupled from its interiors, which should be ‘possessed’ and altered by its users at will. In his ‘Back to the Future’ article in this issue of (pp 18–23), he reflects on his concept of ‘open building’ more than half a century after publication of that seminal work.

Stewart Brand came to a similar conclusion in the same period, logging in his Whole Earth Catalog the tools ‘to encourage the power of individuals to conduct their own education, find their own inspiration, shape their own environment and share the adventure with whoever is interested’. In Peter Murray’s interview with him on pp 24–9 of this issue, he explains how he came to realise that the practicalities of construction limited the extent to which individuals could create their own buildings, noting, for instance, that Bucky domes ‘leaked like mad’.

Cedric Price was the first to give architectural expression to loose-fit with his Fun Palace for the Lea River Valley, East London (begun in 1961), and it was Price who linked time and uncertainty to design: ‘Inbuilt flexibility or its alternative, planned obsolescence, can be satisfactorily achieved only if the time factor is included as an absolute design factor in the total design process.’ Price, like other contemporary thinkers, was interested in democratising the built environment with an architecture that ‘enabled’ rather than determined human activity. The Fun Palace, for theatre director Joan Littlewood, encouraged audience-participation film and theatre, making and modelling.

Whether Brand in How Buildings Learn (1994), Habraken in Palladio’s Children (2005) or Victor Papanek in Design for the Real World (1974), from the mid-1960s there was, according to Papanek, a sense of the ‘cancerous growth of the creative individual expressing him or herself egocentrically at the expense of spectator and/or consumer’. With such critiques of the role of the architect and the obvious benefits of a flexible building stock, it is puzzling why the possibilities of adaptation to cope with change in our dynamic age were so ignored.

Perhaps those architects of the High Tech movement, inspired by Price, who promised a dynamic architecture composed of interchangeable parts, somehow subverted his ideas into a relatively inflexible, albeit visually exciting, aesthetic. The Hongkong and Shanghai Bank Headquarters (1986) designed by Foster + Partners (on which I worked) was somewhat flexible in use, but only as a bank or office building. The Pompidou Centre (1976) by Renzo Piano and Richard Rogers had similarly impressive credentials, but again was only alterable within strict boundaries.

Those architects of the High Tech movement, inspired by Price, who promised a dynamic architecture composed of interchangeable parts, somehow subverted his ideas into a relatively inflexible, albeit visually exciting, aesthetic.
On the other hand, the brand of grassroots flexibility advocated by thinkers such as Brand and John Turner implied a dilution of authorial or regulatory control: ‘those of us who reject consumer society’s values and whose sense of insecurity increases as we observe our growing dependency on pyramidal structures, centralising technologies and non-renewable resources, look to the immense achievements of the poor for ways out of the megatechnic trap’.8

Most likely, the plasticity provided by loose-fit buildings is of little benefit to economic systems that focus on short-term objectives. Extended life is only of value to long-term property owners or agencies that value the social and environmental benefits. Curiously, at Lifschutz Davidson Sandilands we have found that developers utilise the flexibility we provide for the long-term life of our buildings prior to their construction; for example, to tune apartment layouts and sizes in response to the increasingly volatile property market. This is particularly the case in large urban regeneration schemes such as at Barking Riverside in East London (2016–), where considerable periods elapse between initial planning consent and rollout of the final stages.

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Apartment buildings in this 11,000-home masterplan are designed for alternative internal layouts to provide flexibility in the long term, but also to be altered to respond to the volatile property market prior to construction.
Environmental Legislation, Building Regulations and Tax Credits

The carbon benefits of a long-life, loose-fit building stock are becoming more easily demonstrable. Environmental legislation might now begin to provide the necessary thrust for more flexible architectures – the ‘low energy’ element of Gordon’s entreaty. In his contribution to this issue (pp 46–53), Simon Sturgis shows that, when embodied carbon is accounted for, it takes 100 years for a new PassivHaus to catch up with an existing terraced house that has been modestly improved.

The 2010 Energy Performance of Buildings Directive and the 2012 Energy Efficiency Directive are the EU’s main legislation for reducing the energy consumption of buildings, which are responsible for 40 per cent of energy consumption and 36 per cent of CO₂ emissions in Europe.9 These concentrate on a reduction of energy use in new buildings to zero by 2020, and upgrading existing structures to lessen energy consumption by 20 per cent by 2020. However, European legislation is almost silent on the carbon benefits of ensuring that new buildings are flexible, or improving the adaptability of existing stock. For example, UK BREEAM certification assesses a building’s adaptability under the ‘Waste’ category,10 but a full score gains less than 1 per cent credit points.

Japan is in the vanguard of attempts to force the market towards loose-fit, partly for environmental reasons and partly in response to its ageing population and declining labour force. In his article ‘Japanese Innovation in Adaptable Homes’ (pp 38–45), Kazunobu Minami reviews the legislation introduced in 2008 that promotes longer life in housing stock. In parallel, major corporations are pursuing research and development to create systems for moveable partitions, bathrooms and kitchens to underpin flexible homes.

The Swiss Canton of Bern is a significant long-term property holder with over 2,000 buildings in its portfolio. As its former chief architect, Giorgio Macchi helped frame legislation and design to facilitate building versatility for environmental, economic and operational benefits. On pp 76–83, he describes a strategy known as System Separation, which articulates building elements by their lifespan to permit each to be renewed or altered discretely. The case studies are a hospital and a university building, structures that benefit from frequent upgrades in technology.

A new form of co-ownership housing mortgage in the UK in the 1960s encouraged entrepreneurs to come together to develop small sites. Edwin Heathcote describes how the UK practice Farrell/Grimshaw Partnership used this 100 per cent grant to fund a loose-fit apartment building at 125 Park Road in London (pp 62–7). Members of the cooperative were unable to agree the details and finishes, so the architects designed each apartment as a ‘loft’ to be fitted out individually.

Large-Scale Speculative Urbanisation

Rapid urbanisation since the Industrial Revolution has been effected in various ways, one of the most successful by the partnership between the great landed estates and speculative builders in the development of Georgian and Victorian London: ‘the city raised by private, not by public wealth’.11 Between 1800 and 1900, the city’s population grew from around 1 million to 6.7 million, the majority of new citizens renting terraced houses which are still highly valued as flexible accommodation for living and working. Government played little part in the process; rather, ‘leasehold tenure promoted by hereditary landlords brought half of London into being’, particularly as those estates ‘could not except under act of Parliament, be sold’.12

The clue as to why these terraced dwellings proved so adaptable comes from the way they were procured. Landowners assigned parcels of land to builders to be constructed to pattern-book designs that determined the external form and features, but left the interior layout and fittings to be decided by the families leasing them or by the builder with an eye to the market. As the freeholder might never sell, he would set down minimum standards of construction (later developed into London Building Regulations) to ensure that properties would be sufficiently robust and fit for the long term.

In her contribution to this issue (pp 106–13), Clare Wright describes how seven such houses, built for bourgeois families in the late 18th century, morphed into the Architectural Association (AA) – perhaps the world’s best-known architecture school. Her practice, Wright & Wright, was hired in 2011 to provide a masterplan for the school that would deal with its technical deficiencies, such as inadequate disabled access, and provide a template for future improvements including a new lecture theatre and library. The AA occupied the first of its buildings in Bedford Square in 1917, and over the years lateral connections have been made, courtyards filled in, and the buildings incrementally altered. A paradox is that these authorless loose-fit buildings have spawned generations of highly deterministic architects insistent on the hegemony of the designer rather than the user, and apparently oblivious to the heritage of the buildings in which they studied.

The most extraordinary lecture I attended at the AA was given in 1974 by the polemicist and marketing guru Conrad Jameson; he was jeered and heckled for suggesting that pattern-book housing was better than anything that architects (and certainly those in the room) would ever produce.

Given the example of Georgian and Victorian London, why has so much of the stock built subsequently been so deficient in quality and flexibility? Across the developed world in the post-Second World War period, private enterprise was unable to provide homes on the scale demanded by war damage or rising living
standards. Governments filled the gap with utopian urban renewal projects – schemes that frequently ran into the sand because of substandard build quality, monocultural living arrangements and poor stewardship. Since the infamous Pruitt-Igoe development in St Louis, Missouri (1954) was dynamited in 1972, many other housing estates across the globe have been demolished or are in distress. Only a few have been able to evolve to overcome their challenges, an example being the Gårdsten complex north of Gothenburg in Sweden (started in 1997) or, more recently, the Quartier du Grand Parc, Bordeaux, refurbished by architects Lacaton & Vassal in 2016.

Habraken observes (pp 18–23) that complex organisations distribute control on different levels, and government and big business are only two of the three players with skin in the game – the third being the user. But the involvement of building inhabitants has been neglected where urbanisation has been rapid, or where housing shortages have been too great. Numbers have been prioritised over the qualities of appropriation, adaptation and change over the long term. Yes market forces apply to the housing sector, but generally only in space and location – build quality and flexibility are often missing from the equation.

The ticking time bomb is the inability of these dwellings to respond to rapidly changing population demographics. As Tatjana Schneider and Jeremy Till observe in their research paper ‘Flexible Housing: Opportunities and Limits’ (2005), ‘the tendency to design buildings that only correspond to a specific type of household at a specific point in time reflects a way of thinking that is predicated on short-term economics [rather than] the ability to react quickly to changing needs or wants of the existing or potential inhabitants and the market’. The assumption that people can move if their accommodation does not suit

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Lacaton & Vassal, 
Transformation of 530 homes, 
Quartier du Grand Parc, 
Bordeaux, 
France, 
2016

The radical reworking of this failed housing estate by the simple addition of cantilevered perimeter balconies has established much better accommodation and also the flexibility to meet future needs.

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