

Time to change paradigm: The ecological challenge to architecture

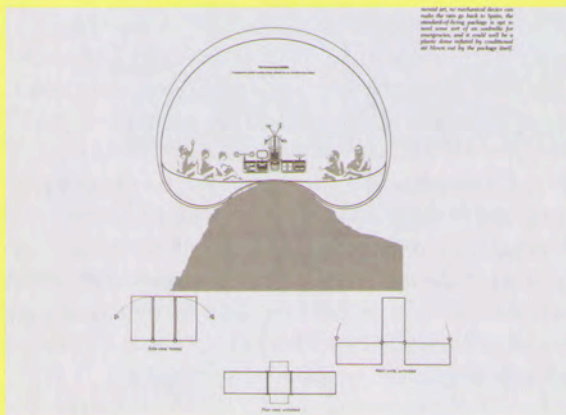
By Wilfried Wang

If it is true that civilization has from early times till today striven for ever greater autonomy from the vicissitudes of time, weather, topography, resources, indeed even fellow beings, then the effort to create a truly sustainable architecture will require Titanian resolve in intellectual perspicacity, behavioural change, as well as hard labour¹.

Architecture's impressive achievements across time shows that the discipline has assisted civilization's strive for this autonomy: we can now live and work anywhere, we can pursue any activity at any time of day and during any season, from inhospitable deserts and polar regions to crowded conurbations. François Dallegret and Reyner Banham's image of the high-energy driven space bubble of 1965 – a form of "well-tempered environment"² – has become the idealized icon of civilization's seeming hegemony over the environment, only, we are beginning to realize that the environment is slowly getting even with the dominant form of civilization.

In their bubble, the two protagonists lead a blissfully ignorant, womb-like existence, despite the hard rock and the surrounding climate. At the heart of the bubble is a dense, collapsible piece of survival technology, complete on its own, without any connection to the exterior, without any power supply: autonomy pure and simple.

However, anyone pretending that we can resolve our current difficulties once again by turning our backs to the environment, by sealing ourselves off from the outside, by applying supposedly self-sufficient technological means is not only misleading him or herself, but also anyone else who cares to listen to such a message. Just as individuals used to consuming too much food and thus suffering from obesity can shorten their gastro-intestinal tract or alter the gene that controls weight-gain in order to overcome the problem. These technological interventions will not change their behaviour, on the contrary, they will encourage the persistence of the wery behaviour that led to the obesity in the first place. Over-consumption of food will not necessarily be normalized by such technological interventions. More generally, and this may sound trite and intellectually crude: over-consumption of resources will not be reduced by technological interventions on its own. Technological innovations and interventions, unless carefully integrated into an overall set of cultural principles, will permit the



depth) and the breadth of time and the breadth of dissemination define the cultural footprint (more a diachronic and geographic measure).

The notion of the cultural footprint can help to explain some of the motivations underlying western lifestyle: the dream of life in a freestanding, single-family house in the countryside. Its origin reaches far back to the anti-urban sentiments of ancient societies, including early Greek and Roman civilizations; finding a high point in the Renaissance with the villas of the Veneto and another with Modernist counterpoints such as the Villa Savoie, the Usonian Houses and the Farnsworth House. Today, glancing across the globe, from Chile to China, from Dubai to Dublin, millions of freestanding houses can be found as versions that complete the spectrum of possibilities that was once opened by these classical and modernist icons.

In disseminating such icons, the architectural discourse has followed well-trodden paths over the last five hundred years. Two-dimensional representations in books, lectures and now the internet, from copperplate engravings, black-and-white slides to four-colour photographs, images of items of architecture have been multiplied and deposited in the eager and absorbing minds of architectural students and professionals alike. These icons act as markers. They become goals that are either to be copied, assimilated or overtaken. The conventional architectural discourse has functioned in a competitive manner.

In this sense, there has been a separate and ongoing competition within each building type. At the other extreme of the freestanding, single-family house stands the skyscraper. Its cultural footprint is almost as old as that of the house, from the Seven Wonders of the Ancient World⁴ to the spires of Gothic cathedrals, there has been an unstoppable strive for the tallest and most memorable structure. Size and iconic value have continued to determine the plausibility of such buildings in the last few decades.

Given the notion of the cultural footprint, its depth and breadth of influence on specific habits also determines their projective cast into the future. On this basis, the breaking of a habit will only succeed if we firstly realize that there are such origins and that they are systemically engrained and if we secondly seek and develop a therapy to overcome the habit, not to speak of the selfevident

need for change. Therefore, it is by no means clear that the cataclysmic final stage of the deregulated global finance industry will be mirrored by a final stage of global building culture. While it may be clear to architects and architectural critics that the superficial fixation on the production of images – pretending to be ever more spectacular, overwhelming or memorable – cannot be maintained ad nauseam, and that this production of images has been specifically tied to the speculative method of financing such projects, it has not yet dawned on enough publishers of architectural journals that they are feeding a dinosaur that is dying as a result of a constipation from ever more repetitive images.

Thus, if we are to confront one of the first, deeply entrenched habits, namely that of vying for new images, searching for the next new style in architecture, in order to be ahead of the curve, to be “with it”, to belong to the avant-garde, to be the next shooting star, to achieve fame and wealth, we have to conclude, that, in order to overcome this mind set, all sorts of “reforms” will be necessary. They begin with the way we understand and perceive architecture; that is, as a timebased, three-dimensional phenomenon with haptic sculptural and spatial qualities, not as a static, two-dimensional composition that is merely to be viewed from a distance, as a pixelated representation. Such a time-based phenomenon involves the understanding of buildings as leading individual lives: from inception to construction, from use to maintenance, from adaptation to recycling.

Understanding architecture more in terms of a building’s long-term life, its capacity to be adapted, the manner in which it is part of a changing context, opens up a different way of perceiving architecture, of telling the history of architecture. Rather than the rapid kaleidoscopic passage across the nomenclature of outstanding examples of architecture by dead white males, it will become more important to recount the individual complex stories of the fate of a building, from its inception, gestation, construction, adaptation and demise. Even if such icons as the Villa Savoie, Falling Water or the Farnsworth House were still the subject of architectural historiography, their current status would be as important to tell: the life as an icon that has been sold a number of times, that has been renovated and that no longer is used as a residence for one or two people.

The sobering discussion as to how such Modernist icons are to be preserved raises the same reflective questions for apologists of Modernism as for preservationists in general. If the lifestyle that once gave rise to a building no longer exists, to which future uses can a building under a preservation order be put such that it may survive? Architectural historiography needs to recount the stories of the fabrication of styles; the personal networks behind Modernism, for example; the wide spectrum of Modernist options; the dominant and dominated positions within Modernism; its current ideology as well as the formalist moments.

Architectural historiography needs to shift its paradigm from idolizing the same group of dead white males to the critical exposure of their achievements. It needs to stop idealizing the nature of the profession and reveal the realities of daily practice. It should show the logical deadends of the object fetishism into which students and professionals alike have moved. It should reveal the fact that most buildings have experienced one or another form of adaptation in their lives, from airports to hospitals, from parliamentary buildings to speculative offices, from individual houses to garages.

Architectural historiography combined with a reformed architectural theory would take on the task to provide a holistic perception of the long-term life of the built environment. Life-cycle analysis of buildings, hitherto first and foremost undertaken in quantitative terms, thus needs to be extended to qualitative dimensions: what does a building contribute to the collective environment on the one hand, and on the other, how does a building contribute to the well-being of its users, both in its relative static existence and in its ability to change and adapt to new requirements? Lifecycle analysis of buildings should therefore cover not only aspects of embedded energy, energy consumption while in use and its recyclability, but also to what extent its respective typological and tectonic constitution allow for certain degrees of adaptation and how its character and ambience are achieved, and how these qualities contribute to a building's cultural status.

Architectural theory, of which the recent Anglo-Saxon production has paralleled the irresponsible, speculative activities in the deregulated financial

industry, needs at last to deal with the evaluation of design quality, how this design quality contributes or hinders the fulfilment of everyday life of societies. We finally need a transparent and comprehensible method of analyzing individual buildings as well as entire complexes. For this, a descriptive method that is able to identify the components of buildings and their overall composition needs to be agreed upon so as to permit the analysis of specific qualities of a building as well as its overall effect in relation to its users. If the profession is unable to achieve this, then the qualitative aspect of a building will always be relegated to the "artistic" domain; the dominant technocrats will continue to control the direction of the broad discourse in the building industry and design quality, the way most architects like to understand it, will remain beyond the bounds of rational dispute. The failure to develop a comprehensible method for the analysis of design quality will thus weaken the architectural profession even further.

However, the current pragmatic approach to architectural design evaluation, seen in the case of design review boards, is an important beginning. All the same, more often than not, panelists base this approach on gut-reactions; the common lack of communicative skills undermining the authority of such review boards. Whether for sensitive contexts such as UNESCO World Heritage Sites or for regional conservation zones, design review boards have established an important instrument for the guaranteeing of appropriate design quality.

These boards should be extended to every building activity in order to select the best possible design solution for any given task. Better to design and review over and over again than to build badly once.

For it is a bitter truth that of one hundred buildings realized only a very small number of these are of the appropriate level of design quality, a fact that relegates the rest to the realm of neglect and therefore premature demolition. Buildings that are not appreciated and indeed loved by their owners, users and the general public are more prone to being knocked down at the earliest opportunity than those that are appreciated and respected. The clearest evidence of such a practice can be seen in the case of many post-Second World War buildings.

Architectural theory therefore needs to develop communicative methods by which design qualities can be identified, evaluated and discussed in public

and with the public. We need to sensitize ourselves and the public to qualities in architecture that may lie buried or are simply overlooked. The purpose of such identification and sensitization is to demystify architectural design on the one hand – to avoid the public being misled by the attachment of words to buildings or their components such as “this skyscraper will be 1776 feet tall” to commemorate the year of the declaration of independence of the USA as if this were visible or significant – and on the other hand to cultivate real sensibilities that ultimately lead to a greater and wider sense of interest in and ownership of, respect and care for a building.

Without a generally accessible method of evaluating building designs, the building industry will quite understandably focus on the quantifiable, objectifiable, rationally describable aspects of an architectural design. In this way, the resource flows, emissions, toxins, costs, etc. will be measurable and will form the exclusive means of assessment. This will lead to the renewed overemphasis of the non-haptic, non-sensual, economic-rationalist dimension of construction. The last time that a renewal in building culture was attempted in a wholesale mode was a century ago. It was then that the social aim of providing high-design standards for everyday needs in the service of a broad public was pursued, only to end in disaster, as countless analysts and critics have noted in the past decades.

The dialectic of this first enlightenment was most succinctly recounted by Max Horkheimer and Theodor W. Adorno in the last years of the Second World War⁵, later followed in the field of urban design by Alexander Mitscherlich⁶. Parallel to the betrayal of the first enlightenment’s goals of freeing mankind from the ills of religious mythology, superstitious ignorance and feudal tyranny only to find these supplanted by the tyranny of rationalism, the enlightenment promise in the built environment was betrayed by architects who denied the *raison d’être* of the aesthetic dimension to building culture. In focussing on the rational side of such production, the dominant economic-rationalist, technocratic actors in the building industry successfully ignored entire fields of human needs. The cohesion of the urban fabric, albeit insanitary in its speculative density at the end of the 19th century, was supplanted with mono-functional, freestanding and thereby isolating residential slabs in the

post-Second World War years. Everything was sanitized, ethnic cleansing the *ultima ratio*.

If there is a choice, then the second enlightenment must set an end to the selective understanding of habitats of species, including that of *homo sapiens*. It can no longer be “to each his own”, but must build on John Dunne’s dictum “no man is an island” to expand to “no species is an island”, that all are involved in this world; it must transcend Charles Darwin’s insight of the survival of the fittest to the survival of the whole. For if civilization does not have the intelligence to deduce from the current state of the globe that it is *homo sapiens* that needs to adapt in such a way as to give more space to other species, not to continue with the removal of the basis of other species’ eco-systems, but to fundamentally challenge our habits, to change the second enlightenment must broaden the basis of understanding of our world beyond the quantifiable to include the qualifiable. If sustainability as a principle is to be established as a measure for a new paradigm, the associated lifestyle must be defined in quantitative and qualitative terms as global goals and standards. The second enlightenment must acknowledge the rights of disadvantaged groups around the globe and enable them reach the global goals and standards, while the advantaged groups must be prepared to renounce their title to resources that would otherwise prevent the disadvantaged groups to achieve the globally acknowledged goals. Without such a rebalancing of the use of resources, all talk of sustainability and controlling climate change will remain just that.

Western societies have long ago plundered their forests, land, lakes and seas. They have no right to demand that other, less developed nations stop plundering their forests, land, lakes and seas now. Western societies have polluted the air, caused acid rain, sprayed DDT, produced dioxin for PVC, invented emissions trading, are attempting to control the agri-industry by selling one-time-only seeds. Their moral status in the eyes of non-western societies is essentially non-existent.

Western architecture, that suggests that emissions can be controlled by producing ever more spectacular, ever more novel, technologically jam-packed free-standing, new buildings, indeed entire cities, are equally lacking in credibility if they do not show that these new buildings and cities con-

sume less resources and emit less green house gases in their gestation, use and recycling phases than that which stood in their place before, not to speak of the difference in aesthetic quality.

If there is to be a second modern movement in architecture based on this change in paradigm and informed by the second enlightenment, then a building will come into existence when there is a real demand for it, it will be carefully designed and thoroughly evaluated, it will be built slowly, it will cost a lot, it will require intensive craftsmanship, it will seek to have a long physical as well as aesthetic life expectancy, it will use all sorts of material brought together from around the project site, it will supercede any notion of "innovation", it will appear to be a minor growth within a vast sea of pre-existing structures, it will quietly integrate itself with its context and will integrate all components essential to its survival, including the necessary technology, it will look – if at all distinctive – heterogeneous. Any entirely new building will consume fewer resources in its construction, use and recycled stage; will emit fewer green house gases and, most importantly, will be of a higher design quality than the object it replaces.

Most surprisingly, a building of the second modern movement will be comprehensible, will be made of the materials that represent it, will create an atmosphere that will stand prolonged contemplation and will thus engender more sensations than most icons of the first modern movement, including a sense of participation, of ownership, of respect and of care. Sensations that alone guarantee the building's sustained existence.

1. See an extended presentation of this thesis by the author, Introductory Essay, in: *World Architecture: A critical Mosaic 1900-2000*, vol. 3, gen. ed. Kenneth Frampton, vol. ed. Wilfried Wang & Helga Kusolitsch, Vienna/New York, Springer, 2000, p. XVII-XXIX.
2. Reyner Banham, *A Home is not a House*, with ill. by François Dallegret, *Art in America*, No. 2, New York, April 1965.
3. By this term is meant the life-style framed by male, white, Christian, Anglo-Saxon capitalism.
4. The Pyramid of Giza, the Colossus of Rhodes, the Tomb of King Mausolos at Halicarnassus, and the Lighthouse of Alexandria.
5. Max Horkheimer & Theodor W. Adorno, *The Dialectic of the Enlightenment*, originally published in German *Dialektik der Aufklärung. Philosophische Fragmente*, Amsterdam, Querido, 1947.
6. Alexander Mitscherlich, *Die Unwirtlichkeit unserer Städte, Thesen zur Stadt der Zukunft*, Frankfurt am Main, Suhrkamp, 1965.

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