

The Absurdity of Beauty

Rebalancing the Modernist narrative



Form4 Architecture

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Preface

All that is solid melts into air

Paul Finch

A reaction to Modernist straitjackets, explicit in the work of Form4 Architecture, needs to be seen in context. That being Modernism's own reaction to 19th-century industrialisation and the growth of cities, it echoes a precedent for what is happening across Asia today. William Blake's criticism of 'dark satanic mills' bears some similarities to later criticisms of the soulless nature of debased International Style commercial architecture, which took the world by storm when too many commercial clients realised that 'Less is more' could easily be interpreted as 'Less architectural quality equals more profit'.

The quest by John Marx and his partners to find a poetic language with which to reconcile the efficiencies of Modernism with the lyricism of earlier attitudes to architecture is a fascinating one. At a simple level it is about geometry: curves are preferred to straight lines; sculptural form outguns orthogonal grids. But the underlying rationale for this approach is more complex. It suggests that the private life of any piece of architecture lies in the mind of its creator architect – rather than the formal programme of the client or the quotidian uses to which the building may be put.

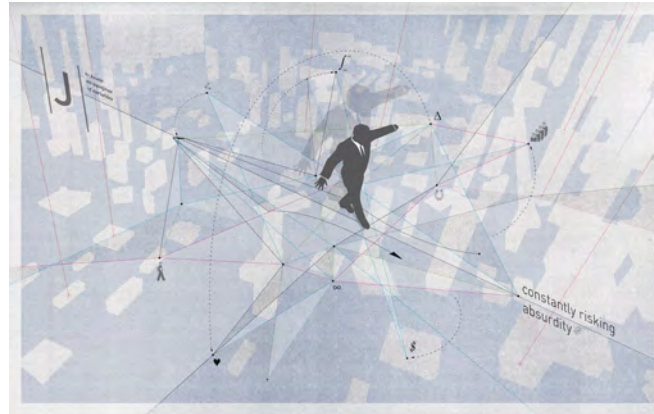
Authorial intention is little discussed in architecture outside the groves of higher education. When it comes to the messy business of multiple collaborations necessary to bring about even modest projects, philosophy soon takes second place to programme, budget and the many constraints with which architects need to contend. Yet in the minds of good designers, philosophy and aesthetics will continue to play a highly significant role, even if it is not necessarily discussed with clients or users.

In some ways the work illustrated in the pages that follow is a clue to the semi-secret thoughts and ideas that inform the creative intelligence at work in the Form4 collective; a specific dialect in the language of architectural design which, when understood, allows recognition of what links a diverse body of work. It is also a reminder of the iconic phrase used by Marshall Berman (quoting Karl Marx and Friedrich Engels) as the title for his treatise on the problems of Modernism: 'All that is solid melts into air'.

Wild civility

Synthesising the poetic and the rational
humanises architecture and reactivates its
sense of 'wild civility', says *John Marx*





**This page: architecture reimagined as a delicate balancing act between technology and poetry, beauty and absurdity
Opposite: the title page of *Hesperides*, 1648, a collection of poetical works by Robert Herrick, who originally coined the term 'wild civility'**

We all respond to the conditions of our time, whether consciously or not, each by adding or subtracting from an apparent sense of progress. At this moment, modern architecture seems to be at a critical crossroads, where it needs to admit to its past transgressions, its current public alienation, and also, to celebrate the progress it has achieved in nurturing and in learning from these, to move forward thoughtfully and perhaps radically to truly fulfil its potential to be of service to and to inspire humanity.

The traditional definition of a monograph is 'a detailed study of a single specialised subject'. Architectural monographs tend to be tightly-focused, dryly descriptive studies of the work of single practices with diagrams, images and concise texts set out in a very orderly way. This monograph presents an opportunity to do two things, often seen as contradictory: to advocate and to illustrate.

What I would like to advocate is a deep conversation within the profession, and in concert with the public and our clients, as to how and why we should fundamentally change the way we design and what the public can and should expect from our buildings. It illustrates one version (of many possible versions) of a response to this condition through the work of my firm, Form4 Architecture. The response is intended to be part conceptual, artistic, philosophical, and practical.

Recently, we were awarded the American Prize for Architecture, curated by the Chicago Athenaeum, and the European Centre for Architecture Art Design and Urban Studies. What follows is my acceptance speech, which provides an insight into the issues we would like to address in this monograph.

We asked ourselves:
When did the world become so grey?
When did the public fall out of love with the built environment?

When did our profession polarise so deeply between pragmatism and self-indulgence? When did we begin to neglect the people we pledged to care for?

We could debate the causal merits of Modernism in this disconnection. In translating a minimalist approach to a wider culture, have we exhausted the conceit yet 'that the public just needs to catch up'? Modernism, technology and science have given us an abundance of gifts that have progressed humankind to ever greater heights with so much more to yet discover.

But we seem to have lost the Human Spirit, the joy of simple poetry, the quirky, subjective arbitrariness that gives life its meaning. Architecture has the power to inspire us to celebrate the human condition in imaginatively assertive ways. When clarity of form pairs with emotional meaning, placemaking follows, communities form, relationships deepen and people become intimately and meaningfully engaged with their environments.

Given this dynamic of our current zeitgeist, one might ask, how would our work react to this? For me, personally and artistically, I marvel at the range of manifestations of nature, the possibilities of the organic which captivate.

So I am drawn toward the curvilinear, the serpentine, the sinuous arc that beckons a vision towards a future architectural fabric. The curve embodies the flow of vitality finding its way into the physical world. Flow is the common denominator in both the ease of use and the lyricism of form. For goods, services and people all flow.

A curve is not the only way to express this dynamic, but when expressed with elegance and intention, this formal relationship can create a cohesiveness between a wide variety of uses and needs, unattainable with the rigidity of the straight line. This may all sound a bit melodramatic, seeming to lean towards a myopic formalism.

But let's critically examine 'form for form's sake', and as a result perhaps we

might favour instead a thoughtful balance of the rational and the artistic. In the belief that navigating the creative tension between these two dynamics is where exceptional architecture is born.

For us, the Rational is a mixture of environmental psychology, technology in all its latest forms, first principles in sustainability, an adapted Silicon Valley version of collaboration. It involves creative listening to both the material aspects of the site and the aspiration of the social/client world surrounding the architecture to be.

The Artistic guides inner priorities for activism in design. Architecture is a poetic act impacting the spirit, especially when coming from a point of view with a narrative. I defend the appropriateness of the sometimes arbitrary, the subjective, the self-expressive versus self-indulgent for it distinguishes me from the machines I use to design.

I want to reach deeply to the emotions of users through the lyricism of dynamic form, to unleash their excitement about city living, about participating in vibrant communities, all this aspiring to create an architecture that straddles the iconic and the humane in a single design.

I would like to advocate for a greater sense of balance in the practice of architecture, a both/and approach instead of either/or. I would like to advocate for our profession to focus on the creation of vibrant, sustaining communities of hope through a deeper understanding of the emotional meanings we embody in our designs.

I would like to advocate for a reintroduction of a sense of the poetic in balance with the rational in the hope that this will invite the public to fall in love with architecture once again. Is there any reason why functionality and the architectural equivalent of the superbly oxymoronic 'wild civility', originally coined by the 17th-century English poet Robert Herrick, cannot co-exist to great effect?



This page: emblematic of modern architecture's failings, an incoherent assortment of towers in Dubai reaches for the sky
Opposite: the original Tower of Babel as a monument to human hubris, envisaged in 1679 by Athanasius Kircher

Meaning in the making

Refocusing on meaning is the key to a new, humanly enriched design of buildings and cities, argues *Pierluigi Serraino*

As Modernism nears its centenary, marked by the founding of the Bauhaus in 1919, it seems an apt time to evaluate its role in shaping today's built environment. What has been its qualitative impact? Did it deliver the promise of a democracy of design, architecture for everybody? Answers to these broad questions might be philosophically complex, but their physical outcomes are incontrovertibly evident in the public domain.

The Modernist project materially improved life conditions in innumerable ways. Committed to addressing the present moment as the basis for action, it focused its energy on many critical areas. It endeavoured to solve social ills through the design of hygienic mass housing, as well shaping a new kind of workplace, where responsible citizenship could take place and the democracy of social improvement be enacted. Through the invention of programming, fitness between form and function became central to the making of architecture. Bringing scientific rationalism into design transformed and underpinned architecture, giving it a more deeply rooted and considered relationship with the industrialised world.

By introducing new construction technologies such as prefabrication, Modernism disregarded the impetus to conceive new forms and changed the very practice of architecture. In relinquishing the classical hierarchy of buildings to unforeseen possibilities, a new way of looking at space was allowed to flourish. Formally, Modernism demonstrated different ways of making space, and extended the material palette. Technologically, it fostered awareness of the ecological impact of buildings and highlighted the significance of environmental comfort. Even more profoundly, Modernism empowered the

individual to challenge the status quo of any aspect of modern life. In effect, it was a liberating force. It enabled construction on difficult or hitherto unbuildable sites and gave a more central role to the infrastructure of the environment. It substantially shortened construction times and delivered artificial lighting into the built environment after millennia of enforced obscurity. It brought to the fore the discipline of environmental psychology for critically assessing buildings and impelled the quest for placemaking.

Yet Modernist tenets of reformation and new ways of designing were also tempered by a sense of alienation and disconnection. Truth to materials and the purging of historicism and ornament often struck a messianic tone, verging on the puritanical. The frequent paralysing soullessness of Modernism was partly to do with how buildings were made, since cost versus profit came to determine architectural quality. Poverty of design was exacerbated by crude methods of production. Technology was embraced as the means to a better tomorrow, without anticipating its

pervasive impact on the degradation and impoverishment of space. In the name of the universal, locality was lost. This is not to deny the advances of the modern project, but a counterview is worth exploring.

The 20th century has witnessed the transformatory development of building technologies applied to the process of urbanisation. Unimaginable in the pre-industrial world, such capabilities make it possible to realise the potential of living in the contemporary world. To the pioneers of the Modern Movement, the leveraging of change brought about by the Industrial Revolution was celebrated as inevitable and represented an uplifting of living conditions. Modernist urban plans prioritised new environmental concerns, making the spacing of building elements a focus of attention. Lowering of densities and the widening of the streets allowed natural light and fresh air to shape architecture, in the belief that such design strategies would produce a new, cohesive urban model where the modern individual could actualise their destiny. Technology, philosophically endorsed as inherently benevolent, was the panacea for all that was wrong with the historical city.

Concurrently, the 20th century ushered in the epoch of the generic, incapable of catalysing memorable city living. Anonymous office towers, utilitarian buildings, low-cost housing, gated communities, the occasional institutional project: all have become jumbled together in a Babel of design languages, with little regard for external form, interior atmosphere or occupant experience. Increasingly, these dislocated compilations of edifices make up the cities of our time.

Though the separation of structure and enclosure encouraged architectural expression, it also impelled the downgrading of process and product in the buildings of today. In the hands of rapacious





Left: Le Corbusier's heroic Plan Voisin unsparingly grafted onto the rich urban texture of Paris encapsulates the anomie and dislocation associated with Modernist planning Below: Peter Blake's 1977 elegy for Modernism in *Form Follows Fiasco*

development, impelled solely by economic interests, it has become disastrous: a succession of slick surfaces polluting city centres and suburbia in equal measure.

Another unintended consequence of Modernism is that it took the artist out of architecture. In a sustained attempt to acquire scientific status, modern architects sought authority for their work through the application of scientific principles. This alleged objectivity delegitimises the worth of the individual, the inner artist who consistently produced architecture that endured over time. The paradigm of Michelangelo showed how classicism made the transition to its Mannerist phase through the vision of a single artist. In the modern era, Frank Lloyd Wright had a similar influence. Discarding the subjective, both in the production and the consumption of architecture, deprives it of one of its most powerful instruments of evaluation: the emotional response to design.

Architectural production tends to oscillate between two extremes. Overly dramatic architecture reflects the self-indulgence of a short-lived engagement with human affairs, while less formally conspicuous projects embody the more utilitarian approach of maximum return on investment, based on real-estate logic and marketplace conditions, with equally scant concern for the human condition. Though the production of the latter vastly outweighs the former, both are iterations of Modernism, conjuring an emotional disconnection from the city.

Latterly, this has been perceived in a more acute form through the pervasiveness of globalisation, generating sameness everywhere and eroding the notion of the particular. 'Notopia' is the latest name given to this phenomenon, implying a terrifying loss of cohesiveness. In a Notopian scenario, successive layers of building over time, a process historically associated with the

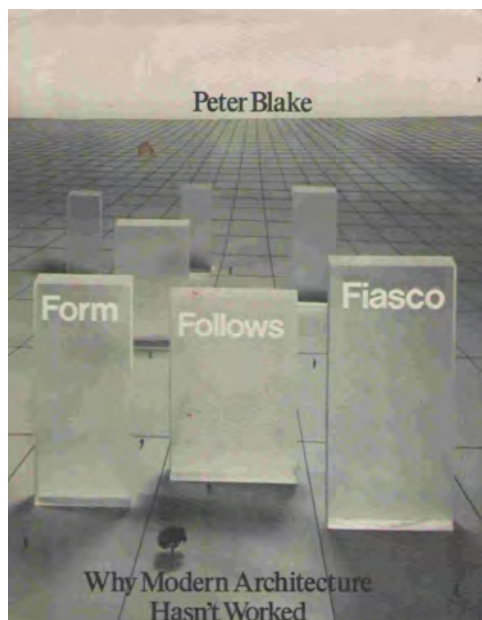
creation of small and large settlements, fails to generate place, either in its physical or experiential sense. Instead, contemporary planning principles spawn developments that only succeed in stirring feelings of alienation and hostility to anything new. The critical question of how to produce thoughtful architecture that is neither a concession to self-indulgence nor anomie remains largely unresolved.

On his return from India, Charles Eames lamented this qualitative decline of the built environment in a 1965 radio interview with sociologist Studs Terkel. His comments hinged on the observation that centuries of development in the architecture of the subcontinent had generated a working language for the making of buildings that could simultaneously attend to new needs, while remaining in harmony with pre-existing artefacts. Conversely, in his view, Modernism had yet to undergo that

extended process of refinement. This same disconnect was the subject of the seminal book *From a Cause to a Style* by sociologist Nathan Glazer. His insightful analysis identified a fatal contradiction in modern architecture and its role in shaping the 20th-century city. Modern architecture, he noted, was meant to address the physical and cultural need of 'the people', in the broadest possible sense, yet it has also created alienation in those it was intended to serve. Initially on the side of 'the people', it in fact betrayed them by lowering the quality of their environment. Similarly, architect and curator Peter Blake lamented the decline of Modernism in his book *Form Follows Fiasco: Why Modern Architecture Hasn't Worked*. And more recently, architectural critic Paul Goldberger in *Why Architecture Matters* has reminded his lay readership of the importance of architecture in the nature of day-to-day experience. 'The making of architecture', he writes 'is intimately connected to the knowledge that buildings instil within us emotional reactions.'

What is the source of such collective anomie? One factor might be that Modernism never created a true vernacular. Vernacular architecture finds its resonance through the accumulation of layered fabric over centuries, a heritage that though often nameless – ie, without authorship – is not faceless. Meaningful rather than generic, it finds distinctiveness in its diffused quality, rather than an infinite array of unremarkable structures.

Paradoxically, Modernism, which was conceived as a vehicle for democratic access to architecture for the masses, became a redoubt of sterile elitism. In discounting the emotional response of 'the people', who rely on their subjective intuitive nature to react to a building, the high priests of Modernism neglected their target constituency. Modernism also presented



Right: the demolition of St Louis's Pruitt-Igoe housing blocks in 1972 marked the symbolic end of the Modernist project
Below: Notopia, the idea of generic non-place, was the subject of a recent special issue of *The Architectural Review*



clients with the opportunity to do things cheaply, making a lack of design the norm.

While Mies van der Rohe conceptually purified and abstracted the language of modernity to its essence, this had a problematic impact on the public realm, where, to re-paraphrase the German master, 'less is less'. Refinement was traded for emptiness and the evocative character so intrinsic to the historic city was sacrificed. The extreme recasting of the terms of designing buildings in the industrialised world has delivered bleakness, an assortment of leftovers irredeemable as places. The cost of such a Modernist tabula rasa is the loss of richness of experience, an omnipresent dullness that flattens and erodes existing diversity.

Yet there is still cause for optimism. To restore a sense of richness and human connection, architects are now able to draw on a stylistic range of sources within a much wider Modernist bandwidth. Architecture might be underpinned by lofty universal ideals, but practising it is a more quotidian affair involving specific choices. Architects must balance the lofty and the quotidian, informed by their own ideological activism. Some express this through faith in technology – whether digital or sustainable – while others see social housing as a way of giving back to the community. Another group might seek to reconceptualise neglected or challenging building types.

Some, including John Marx, Design Principal of San Francisco-based Form4 Architecture, believe the architect is inherently an artist. Marx advocates what he calls 'Lyrical Expressionism', a synthesis that combines placemaking, emotional resonance and a legitimate narrative about 'why that form for that design'. This nuanced and responsive approach consciously sets itself apart from codified principles based on scientific rationalism, generative of so many

inhumane and alienating environments.

The expressive possibility of architectural form imbued with a meaningful narrative solicits an emotional response that is significant to both the designer and the end user. This narrative springs from an individual sensibility, filtered, edited and tailored to address the specifics of the project, yet still linked to a broader contextual framework. This inseparable bond between the inner artist and the collective (whether production team, clients or users) challenges the claim that design can be generically universal. Purposeful expression of the self in concert with collaborative wisdom contributes to a rich and resonant engagement with the world.

In this sense, Form4's proposed design for Taichung Cultural Centre in Taiwan is a quintessential example of an architecture committed to meaningful visibility for the community through a knowledge of history and place. In architectural terms, it aims to

express the ethos of the people of Taiwan united in a project of collective advancement through education and learning. Drawing on traditional Chinese iconography of the moon gate, representing a portal to paradise, it links the utilitarian and the symbolic in a poetic relationship with both its immediate surroundings and the wider city.

Architecture is an art form experienced day to day, brought to life by human activity. At its core, it makes manifest the fundamental resolve of humankind to find a way for people to come together. Through the built environment, isolated entities contrive to generate a sense of connection, with both each other and the wider world. In hosting the energising interaction of individuals, architecture serves that vital function of centering and orientating the self, to become an armature for a life shaped by human contact.

For such an ambitious programme to be actualised, architecture must have a recognisable character that is emotionally meaningful to its audience. Specificity, locality and particularity commit the world of forms to sites: they enable us to experience and inhabit the world as we know it. Individuals navigate territory, connecting fixed dots that act as comprehensible landmarks. In essence, you know where you are and why buildings mean something to you, because you are able to relate to place and artefact through a feeling of belonging. This is the central project of architecture.

Emblematic of this ideal is Form4's Tongyeong Music Hall, South Korea, a project that thematises landform and symbolism into a dramatic sculptural gesture overlooking Tongyeong harbour in South Korea. Dedicated to the Korean composer Isang Yun, the abstracted conflagration of waves creates a powerful architectural ensemble whose function is





to be a permanent reminder of a divided nation bearing the scars of its inner separation on common soil.

The architecture of Form4 is an explicit response to the unintended consequences of Modernism as perceived by both the public and practitioners over the last 60 years. From built commissions to visionary competition entries, John Marx has vigorously pursued alternatives to the insidious alienation spawned by the chilling blandness of much new construction around the world. In parallel, he has been engaged in critical, collaborative writing reflecting on a set of interrelated themes informing the firm's design philosophy. This interface between practice and research has been a decade-long effort leading to numerous awards, among them the prestigious 2017 American Architecture Prize.

Form4's vision is especially compelling because it reasserts the possibility of architecture being a vehicle for change, in a way that revisits the original ideological programme of the Modernist avant-garde through emotional meaning and built form. As Louis Kahn wrote: 'Your first feeling is that of beauty (not the beautiful nor the very beautiful) just beauty itself. It is the moment, you might say the aura, of perfect harmony. And from this aura of beauty on its heels – comes wonder. The sense of wonder is so very important to us because it precedes knowing. It precedes knowledge.'

This monograph is structured around a series of thematic appraisals of architecture and how the work of Form4 addresses these themes. One key theme is the relationship between poetry and the making of architecture. In his essay, Ian Ritchie articulates the centrality of the poetic approach to design. Reflecting on his own experience as a practising architect and interrogating aspects of Form4's oeuvre, Ritchie deftly deflates techno-determinism, so hegemonic in Modernist culture, to

revive the sensibility of architect and user, with architecture as the interface.

John Marx addresses the dual theme of vibrancy and emotional meaning. A proponent of using intuition to design and evaluate its results over time, Marx sees a renewed opportunity to reconnect with users through a sustained design effort that recaptures the vibrancy of the architecture of the past in a new form for our time. Ultimately, all buildings must be emotionally meaningful for their users.

Placemaking is explored by architectural critic Catherine Slessor. This is a much-debated topic, emphasising its role in connecting the isolated architectural object to its surroundings. In a movement committed to ameliorate the human condition, lack of placemaking turns out to be Modernism's Achilles' heel. Notopia is the global result. Form4's architecture endeavours to make place out of space.

Within the US federation, California occupies an extraordinary position. Eternally young, energetic, rich in material and human resources, this part of the West Coast remains a frontier of entrepreneurship and self-determination. Architectural critic Jay Merrick writes on the distinct cultural and material conditions affecting the practice of architecture in California. What does it entail to be an architect in California, what

makes a piece of architecture Californian, and how Californian are Form4? In considering the 'California condition', a fundamental tenet becomes clear: architecture is inextricably linked to the emotional meaning it evokes in its users.

Within California, Silicon Valley is the true urban conundrum of the 21st century. Architectural journalist and author Sam Lubell dissects the contradictions of a land urbanised, yet characterless. Despite the recent efforts of star-architects to establish a new paradigm, the overall nature of its urban space remains unresolved. In exploring the link between patronage and architecture, Lubell shows how Form4 address the conceptual complexity of this unique modern and highly charged terrain.

For Form4, meaning and beauty are achieved through the recognition of the inner artist balanced with a culture of collaboration within the workplace. The 'inner artist' is a figure of speech that redeems the fundamental contribution of the individual in relation to design and retrieves it from the rationalist pedestal of science. However, it still obtains in a network of groups working towards the same aim. In this respect, the subculture of Silicon Valley has provided an effective model to make the individual and the group coexist as inseparable components of creative work in the current era.

While the scientific basis of design had legitimacy at the beginning of the 20th century, retuning architecture to industrial processes, it also delivered the inhumane because the inner artist was shut out of the conversation. Corporate architecture removed the individual from the design equation and commodification took over the profession. As consistently expressed through their work and philosophy, Form4 re-admit the individual into a humane and meaningful conversation around contemporary architecture.





This page: the seductively rippling, wing-like elements of Jeju International Airport connote a sense of flight
Opposite, top: Form4's Taichung Cultural Centre draws on the iconography of the moon gate
Opposite, below: the moon gate represents a portal to paradise, linking the quotidian with the symbolic and sacred

The Temple Dreams its Past

As
the
sun sets
and
moon rises
shadow veiled and twilight tinged
silent in its sleep
the
temple
dreams its past.

A
goddess
in
perfect prime of youth
transfigured
from tides of times now past
poppy tranced and opium tripped
recounts
in
language lost
how
at
the ending of her days
within this sacred shrine
she was laid to rest
in
hope
that
she
would
rise again
resurgent and renewed
to
pass her sapient era codes
to
the darkness of our age.

Epochs lapsed
centuries waned
the goddess is no more
now
only faded memories
and
dormant hallowed stones
recall her reign
and
recollect
the lost wisdom of those times.



Richard England

Building enchantment

Architecture and poetry have a unique
power to transcend the everyday,
observes *Richard England*

*'Buildings should be just like poems.
The impression a building makes on
our senses should arouse feelings'*
Étienne-Louis Boullée

In attempting to establish a relationship between architecture and poetry, it seems appropriate first of all to investigate the origins and meanings of the two respective disciplines: Architecture derives from the Greek word *Arkhitēkton*, where *Arkhi* signifies 'master' and *Tekton* 'building'. Poetry also comes from the Greek *Poieses*, meaning 'to make'.

Making and building

From the etymology of the words, it is clear that the two disciplines are involved in a process of making and building, ie, creating. However, the materials and methodologies employed are different; building materials for architecture and words for poetry. Yet both share the aim of enchanting and elevating the human spirit. Architecture and poetry also share the qualities of precision, metrics, structure and rhythm, as essential constituents in both their creative process and manifestation. Also common to both is the play of contrasting opposites: solid and void in architecture, sound and silence in poetry.

Poetry, not unlike architecture, is also about building, building with words and sculpting with sound. It is about the taste of words and the intermittent voids and silences of the pauses; a crossover between sound and silence. One reads not only what is written, but also that which is not written; the words between the lines and the invisible words too; the heard and the unheard, the said and the unsaid. It is how



musical and meaningful the poet can make these passages that elevates his or her work from the realm of prose to that of poetry, in the same way that an architect can make a building lift the spirit and enchant its users. It was TS Eliot who said 'poetry must communicate even before it is understood'. The true poet is the one who casts a web of magic that has the capacity to carry the reader away, just as the true architect caps into his building human emotions to lift the hearts of its users.

The earliest definition of architecture, 'Firmitas, Utilitas et Venustas', by the Roman architect Vitruvius, clearly indicates the essential quality necessary to elevate construction to the realm of architecture. 'Firmitas' and 'Utilitas' imply a correct building construction methodology and the manifestation of the materialistic functions of the building. The quality of 'Venustas',

beauty, is that which moves our heart and raises the building from construction to architecture. Architecture must therefore extend structural stability and materialistic function to transcend its physical dimensions and measurable limits to ignite a spark in the heart of its users. It is this spark that enables buildings, as recounted in Paul Valéry's 'Eupalinos' text, to 'sing'. Le Corbusier also emphasised the necessity of emotion in his words, 'You employ stone, wood, concrete and with these you build houses ... that is construction. You touch my heart ... that is architecture'.

Maladies of contemporary architecture

It is the loss of enchantment and poetry in much of today's architecture that has caused, to quote John Marx, 'the public to fall out of love with the built environment'. After the failed attempt of neoclassicism to transfer the spirit of the ancients to the modern world, it was the sterile, ascetic and austere doctrines of Modernism, the jagged pungency of Brutalism and the facile Postmodernist movement to reintroduce ornament that served to further alienate the public at large. In today's turbulent world, devoid of the spiritual, where we know the price of everything and the value of nothing and all is measured in monetary terms, architecture has become a commercial, self-indulgent, stylistic brand focused solely on novelty, form-making and appearance in lieu of essence. The steroid cities of the Middle East with their contorted, drunk and distorted towers, all serve to further distance the public from architecture. Architects today must still remember that the ultimate scope of architecture is to serve people and society.

Previous page: medieval Christian mystic Hildegard of Bingen receiving a vision from the divine
Right, top: St Teresa in Ecstasy from Bernini's Cornaro Chapel, a compelling embodiment of spiritual transcendence
Right, below: the warm, womb-like interior of a Maltese neolithic temple



Remedies and redemption

Architecture today needs redemption to once again nourish human existence. Thankfully, there are architects who, both in their works and writings, still strive for enchantment and poetry. Emilio Ambasz reminds us that, 'architecture is giving poetry to the pragmatic', as does Tao Ho, who emphasises that 'architecture must still elevate our spirit'. Luis Barragán, perhaps the 20th century's most poetic architect, always strove for 'beauty and emotion' in his work. This quest for enchantment in architecture is also echoed through the ages in the writings of many poets. William Wordsworth tells us that poetry is about the 'overflow of powerful feeling', as does the 20th-century poet Robert Frost, 'poetry must reach the eye, the ear and most importantly, the heart'.

Permanence versus transience

While both architecture and poetry share an endeavour towards emotion and enchantment, they differ radically in the extent of their longevity and permanence. Architecture, much thought of as being fixed and finite and built to last, is in fact the most temporary and transient of all the arts. Once the architect hands over the building to the client, ownership is lost and, all too soon, the building undergoes additions, changes or even possible demolition if monetary profit looms on the horizon. On the other hand, poetry remains permanent and unchanged, as Shakespeare emphasised, 'not marble, nor the gilded monuments ... will outlive this powerful rhyme'. As with painting, sculpture and literature, poetry retains its author's authenticity, untouched and untainted.



The human response

Architecture, as outlined in Juhani Pallasmaa's publication *The Eyes of the Skin*, is engaged by all of the human senses, while poetry is experienced only visually and aurally. As an architect who writes poetry, I am particularly interested in the way words occupy the space on the page in a form of visual geometry; perhaps due to an early penchant for Concrete Poetry. The initial visual reading of the form of the poem adds to the sensory perception of the written verse. Poetry is about the phenomenology of the experiences transmitted by the poet through the precise structure and rhythm of the poem and the poet's expressive imagination. Architecture is also about phenomenology: how space is experienced and how a building can transcend its physical dimensions and measurable limits to the unmeasurable. Both require craftsmanship and skill in the making and both are disciplines concerned with the manifestation of an imagined idea into reality. The essence of both architecture and poetry is not so much about what the building or the poem is about, but what emotional effect the edifice or poem can have on users and readers.

Ultimately, both can be thought of as routes to transcendence.

The poetics of sacrality

As an architect long involved in the design and manifestation of sacred spaces, my search focused on the building of a bridge between the measurable and the unmeasurable. An architecture of sacrality involves a search for an architectural expression for the most transcendent of man's needs. In the creation of these 'ineffable' spaces, the architect is evoking the unseen in what is seen in an attempt to elevate the tangible into the intangible and, in the process, to transfer reality into surreality. Yet it is not only in edifices of sacrality that the architect must enchant; it is equally important for secular buildings to also evoke the spirit. The job of the architect remains that of making the ordinary extraordinary. The main function of a sacred space is the transfiguration of the physical into the non-physical; to ignite both soul and spirit. It was Mircea Eliade who reminded us that 'within the sacred, the profane is transcended'. In poetry, the poet seeks to evoke the unread in the read and elevate the tangible into the intangible.

In the hands of mystical poets such as St John of the Cross, Hildegard of Bingen, St Teresa of Ávila or St Francis of Assisi, among others, poetry manifests itself as an ineffable experience as mystics, through their spirituality, can raise verse to exhilarating levels. Mysticism remains that spiritual spark to ignite a state of consciousness beyond natural awareness. The poetry of such mystics allows us a glimpse of man's potential to experience a higher state of consciousness.



Left, top: the interior of the Caja Granada by Alberto Campo Baeza is a beautifully orchestrated play of stone and light
Left, below: umbras and penumbras in the chapel at Luis Barragán's Franciscan convent in Tlalpan, Mexico City



Reciprocal inspiration

Poetry and architecture, as stated, both rely on precision; the former in harmony with number, the latter in harmony with measure. Metrics and measure are common to both. Thomas Hardy said, 'poetry is emotion put into measure'. Poetry and architecture can also serve as reciprocal inspirational sources. Great poetry has been inspired by architecture, as for example in the works of Coleridge, Wordsworth, Hardy and Eliot, and architects have also used poetry as a source for their inspiration. Poetry conjures up spaces in the mind, while architecture creates spaces that can conjure up poetic sensations. Architecture becomes poetry when it taps into our emotions. 'When a work reaches a maximum of intensity ... it is then that the place starts to radiate', according to Le Corbusier.

Journeys of the soul

Architectural masterpieces, such as my native island of Malta's 3500 BC amorphous Neolithic Temples, the unknown designer's Ryōan-ji Karesansui Dry Gardens in Kyoto, Senenmut's Deir el-Bahri Burial Tomb in Egypt, Phidias's Parthenon on the Acropolis, and Hadrian and Apollodorus of Damascus's Pantheon, or Bernini's choreographic Cornaro Chapel in Rome – cannot but leave one in absolute awe. Similarly, the works of Borromini, Guarini, Palladio and, closer to our time, the edifices of Carlo Scarpa, John Pawson, Peter Zumthor, Alberto Campo Baeza, and Luis Barragán are all examples of architecture imbued with poetry and emotion.

In 2002, the centenary of the birth of Luis Barragán, I was invited to Mexico to give a

keynote speech on the architect's work. Among the many works of the architect that I had occasion to visit was the minuscule chapel in the Convent of the Franciscan Nuns in Tlalpan, a work I found to be one of the most inspirational and poetic that I have ever experienced.

The approach to the chapel itself is through an open-to-the-sky atrium enriched with lush vegetation and the aural play of water, a cleansing threshold to prepare visitors for the transcendental passage from secular to sacred. The trajectory path then continues through a dark-shadowed vestibule to open up onto the golden interior of the chapel itself.

Designed in 1952 and completed in 1955, the chapel could perhaps be best described as a building without adjectives. My reaction to this sacred choreographic stage-set, with its rich chromatic palette, was that this was a perfect enclave for meditation and prayer. Barragán's sparseness of language and calligraphy of silence creates a muted architecture of sacral mysticism and sheer poetry, utilising a minimal vocabulary to attain maximum expression. The rich interior, with its litany of umbras and penumbras of direct and

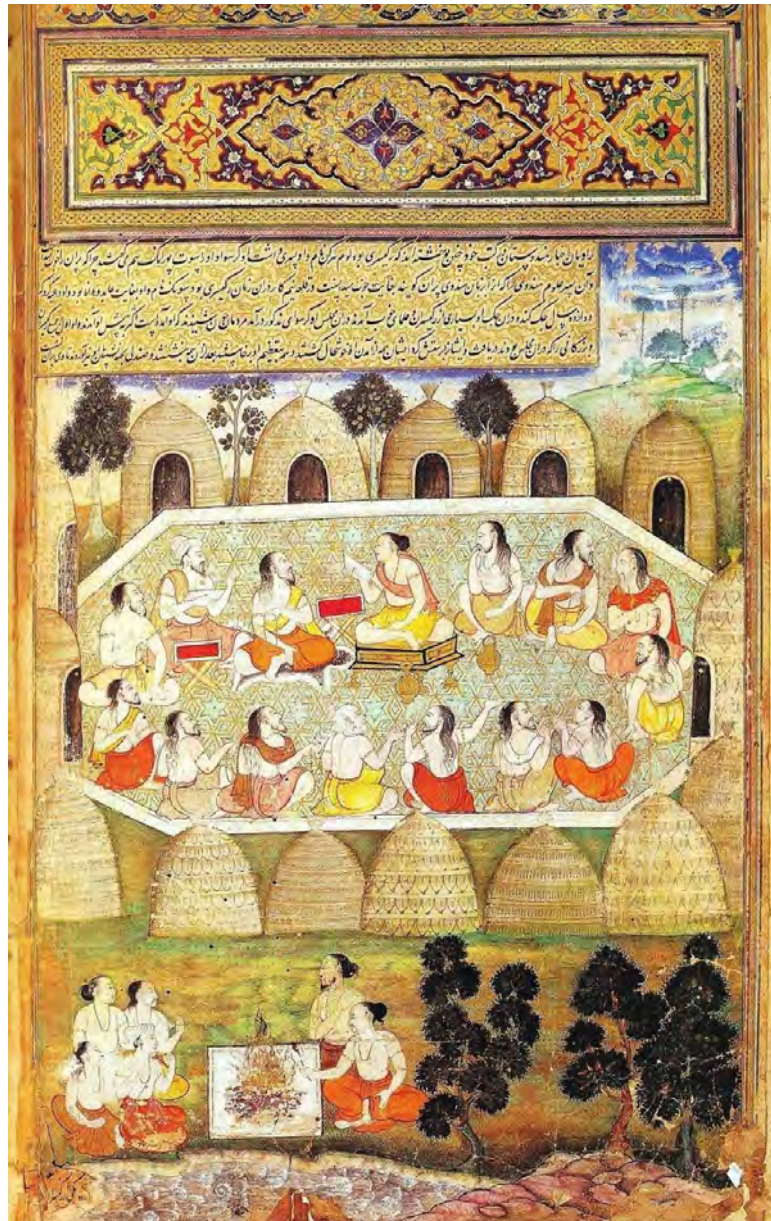
filtered light, produces a Cistercian-like sparsity as if to manifest Barragán's penchant for simplicity and seclusion.

This is an emotionally palpable space; an arena where you feel you must stop and pause, be silent and unspoken to; an exiguous locus in which to hear in Barragán's words, 'the placid murmur of silence'. This reverend place of quiescence is surely the paradigm of sacred architecture.

Exaltation and enchantment

The reading of poetry can also produce similar effects. Who cannot fail to be moved by the stardust verses of poets such as Rumi, Wordsworth, Yeats, Keats, Eliot, Blake and those of more recent times, Prévert and Neruda? And while the relationship between architecture and poetry remains nebulous, it is obvious that the two disciplines share many parallels including that of the ultimate aim of evoking, through lyricism, emotional meaning. Both can exalt us, make our hearts leap and touch our soul. The ultimate aim of architecture remains perhaps best expressed in the words of master architect Alvar Aalto: 'Every product of architecture should be a fruit of our endeavour to build an earthly paradise for people'. On poetry, Richard Garnett's 1897 statement that the poet's objective is 'to create a perpetual feeling of enchantment' is equally apt.

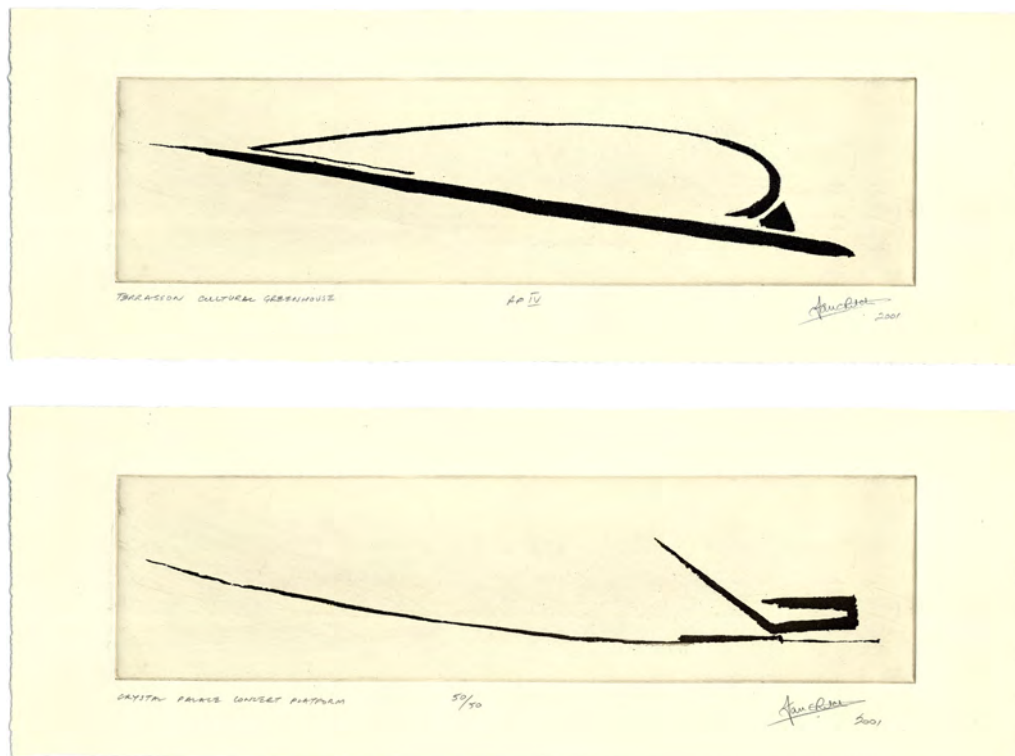
It seems somehow appropriate to conclude with the words of an architect-poet, John Hejduk. When he was Dean of the Cooper Union College in New York, he introduced poetics and poetry as part of the architectural course curriculum: 'Architecture and poetry, in the end ... are life-giving'.



The architect as calligrapher

Conveying architectural intentions
involves a form of poetic calligraphy,
says *Ian Ritchie*

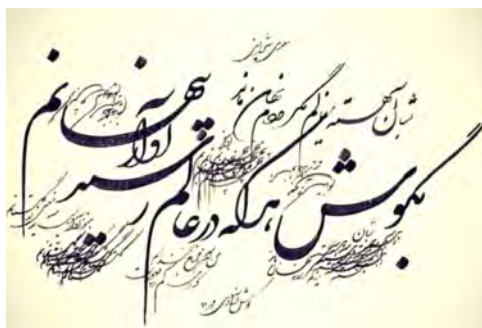
This page: conveying the essence of a building in a few deft lines, Ian Ritchie's sketches have the elegance of Persian calligraphy
Opposite: reciting the verses of the Mahabharata, the epic Sanskrit poem



I love words. They lie at the root of human communication and the shared understanding we call culture. As an architect, I also use words as an investigative tool to discover what I am trying to express. This usually takes the form of poetry. I enjoy removing the superficial – the reductive process. The need to critically examine each word and its relationship to the whole poem allows me to convey meaning, significance and emotional qualities with an economy of means similar to the precision needed in architecture.

Notes begin, texts follow and these become the sources for a poem. But why poetry? Why not an essay? The creative act is always personal so I can only conjecture, although the intuitive connections between architecture and poetry are widely recognised.

Structure is fundamental to both, as are other elements of design. We even use the same words to describe the ways we create architectural and poetic pleasure and meaning out of formalised elements: scale, rhythm, balance, proportion, syntax.



Both buildings and poems are essentially compositions of separate elements used to create a whole which exists in both the rational and emotional realms. The poet uses silences and the rhythm of words to create a poem tying the mind's interior to the outside world. The architect uses light and the rhythm between material and empty space to create a building that mediates between our senses, the spaces we live in and the outside environment.

Poetry is also a means by which I discover the emotional and essential context/idea of a particular architectural project.

The beauty of poems is their capacity to absorb and express emotion, essential to artistic creativity. The design process for me always begins with an idea, and ideas can come from many sources. But they exist as ideas without a clear representation.

My process of thinking accepts that there is a boundary-free flow between my brain and the outside world. This is the essential self through which we respond to internal and external challenges, and is derived from the concepts acquired through interaction with our environment and those inherited through our particular DNA. The first preconceptual response consists of melding cognitive knowledge with one's psychological predilection and imagination, conflating inspiration and creativity, to produce percepts – words and images. Then comes a synthesis and distillation for which process language – ideally poems – is my initial preference. This stage of the design process is personal research.

I then try to capture this distillation visually in the simplest possible way, using a few brush strokes – a sort of architectural calligraphy. This begins the conceptual

stage of the design process, embracing both an aesthetic assessment and a pragmatic analysis. It is also the beginning of the collective architectural process, during which the concept is repeatedly refined and balanced, pragmatically and aesthetically, until the concept's loose edges are exhausted.

Writing the poem creates the theme; in asking the question, another is born. Flashes of truth form the background to thought and design. This is not the same mental process as that during which some kinds of paintings are created – which can be done without analytical thought, as illustrated in these monotypes I did.

Is poetry particularly suited to releasing the peculiar combination of art and science, creativity and rationality, necessary to evoke emotion in architecture? Poems may be reductive by their nature but they are undoubtedly vehicles of and for synthetic thinking. For me they are poetic. Both writing poetry and creating non-architectural images allows me to extend my boundaries.

Although there have been many studies of neural circuits and behaviour related to the creative process, the place of poetry and its relationship to reason are still unclear. In this context it is interesting to note that the phrase 'there's neither rhyme nor reason' means there's no explanation or rationale for whatever's going on because there's no pattern (rhyme) or logic (reason) behind it.

The human mind/brain has the creative impulse built into its operating system. At any given moment, the brain is automatically forming new associations. Neuroscientists are beginning to learn how to measure the process in action.

Maneesh Sahani, a theoretical computational neuroscientist at the Sainsbury Wellcome Centre (SWC), has discussed how our brains form a coherent 'perception' of the world from the noisy, incomplete information arriving via our senses. He comments that 'this is why it is so hard to draw what you are seeing; your brain does not know how to recreate the visual input that caused that mental experience'. The ability to translate ideas from our internal world to an external non-verbal form is the skill artists, including architects, must acquire.

Language, on the other hand, is defined by the ability to produce external forms (sounds) that directly relate to internal concepts, and it evolved (only in humans, and only 70,000 years ago) specifically as a means of communicating the internal world of one human to another.

Dedicated brain regions are now devoted to this task (eg. Broca's area in the left hemisphere). However, to communicate effectively, language must necessarily be limited to 'common' symbols, agreed upon

and understood by all. Thus, language is often insufficient to express a completely new concept or describe an entirely new form – it resists creativity in favour of communicability.

To Adam Kampff, an experimental neuroscientist at SWC, my aversion to drawing anything 'concrete' until an idea has matured came as a revelation, yet he realised it corresponds with what neuroscientists know about our brains. A drawing will directly engage our senses; it will drive a concrete idea at the same time one is attempting to create a new idea.

Leipzig Glass Hall

A framed emptiness
brings down the sky
to meet the earth.
Diaphanous shell
stretched taut over
squared silhouettes
of thin round metal.

Light chases darkness.
Shadows are holes
in light. Colours flow
throughout the space.
Sunlight and cloud,
the shadows come and go.



If a recognisable form/structure/pattern appears in a sketch then that will dominate, and possibly constrain, the creative potential. What to do ... to do design?

One needs a form for mental manipulation that does not engage our senses directly, yet enables a universally understood level of communication outside the constraints of grammatical structure – one of these forms is called poetry.

When a problem to be solved stimulates our mind, solutions automatically spring into our consciousness. The 'creative leap' happens before analytical analysis, which is

a process that investigates, verifies, using prescribed methodologies. I believe that in conceiving architecture, the quality of our creative ideas depends upon how open our minds can remain during the creative process and how well they are stocked. The greater and wider our body of knowledge, the more likely it is that we will be able to synthesise new ideas in response to the creative challenge and the problems to be solved.

Einstein, for example, attributed his scientific insight and intuition mainly to music, not logic or mathematics. As he describes it: 'The theory of relativity occurred to me by intuition, and music is the driving force behind this intuition. My parents had me study the violin from the time I was six. My new discovery is the result of musical perception.' (Shin'ichi Suzuki, *Nurtured by Love, A New Approach to Education*, 1969, p90).

My interest in the theatre, literature, the sciences, and the practice of (non-architectural) visual arts is vital to informing my creativity during the architectural design process.

When Witold Rybczynski reviewed my autobiography *Being: An Architect* in 2014 he wrote: 'Ritchie does not have a signature style. What unites his buildings is consistently cutting-edge (and unexpected) techniques and materials, inventiveness, imaginatively conceived details, and an integration of architecture, engineering, and fabrication ... Have a [design] problem? Call Ritchie.'

The connection between the architecture and poetry is a personal one for me, but may also be universal and lie much deeper. Poetry and architecture share a unique human history – they are our most ancient, universal arts.

All humans build shelters, and all human societies have developed poetry – speech shaped by rhythm and/or rhyme – as a tool to aid memory. Songs, chants, oral histories from the Sanskrit epic of the *Mahabharata* to the more familiar sagas of Homer's *Iliad* and *Odyssey* bound ideas into the collective memory with economy, emotional intensity and sensual appeal long before the written word was formally invented.

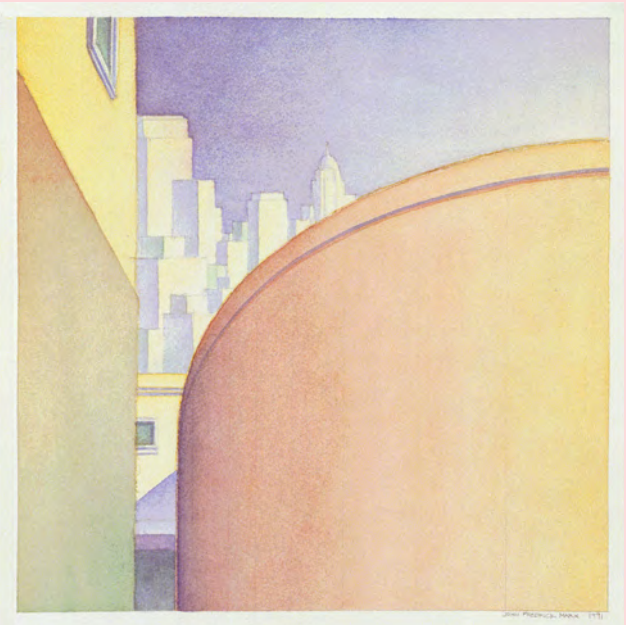
The stage set architecture creates – not in the timescale of theatre, but of eras – also memorialises our history and is both the cradle and expression of our societies' values and preoccupations. Great architects through the ages have understood instinctively that it is possible to create emotional intensity and sensual appeal by the manipulation of space.

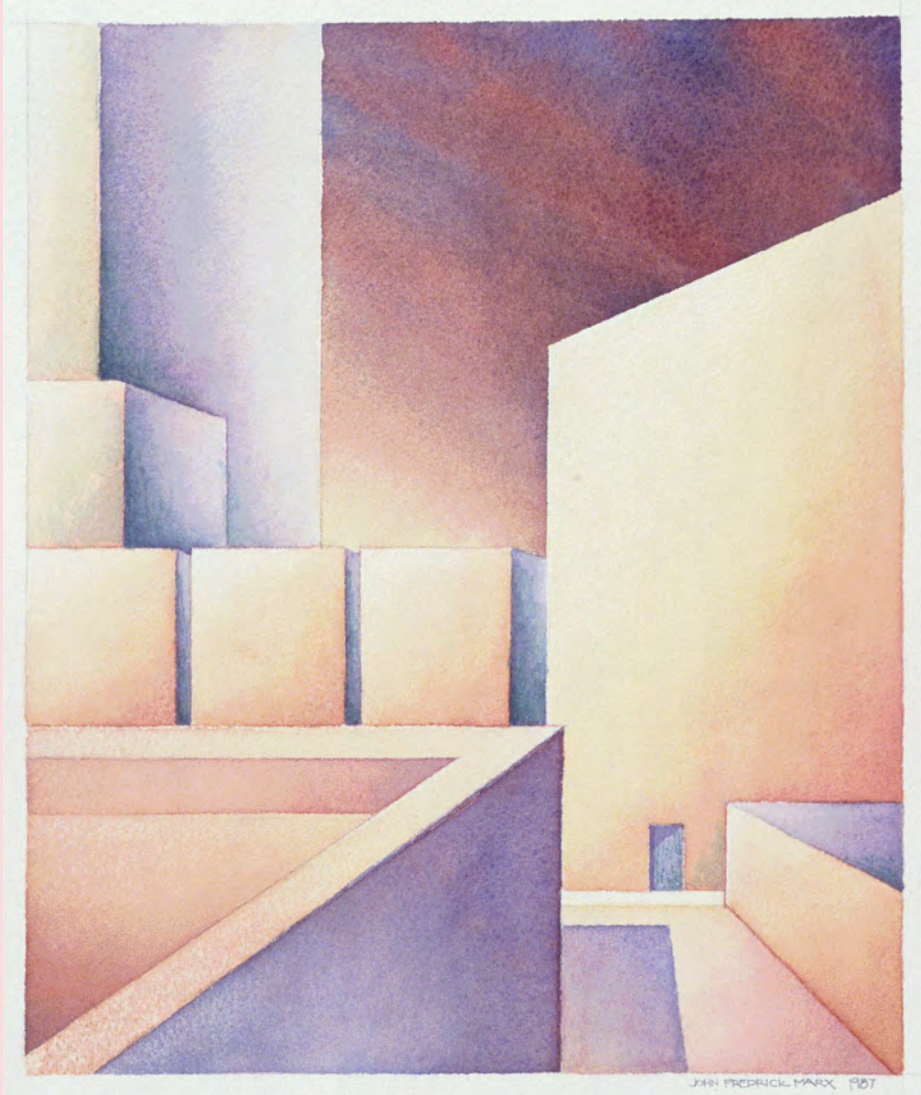
Both architecture and poetry convey information beyond the realm of facts and knowledge – and both have dimensions that come from and access our subconscious, perhaps even at the spiritual level.

SKETCHBOOK

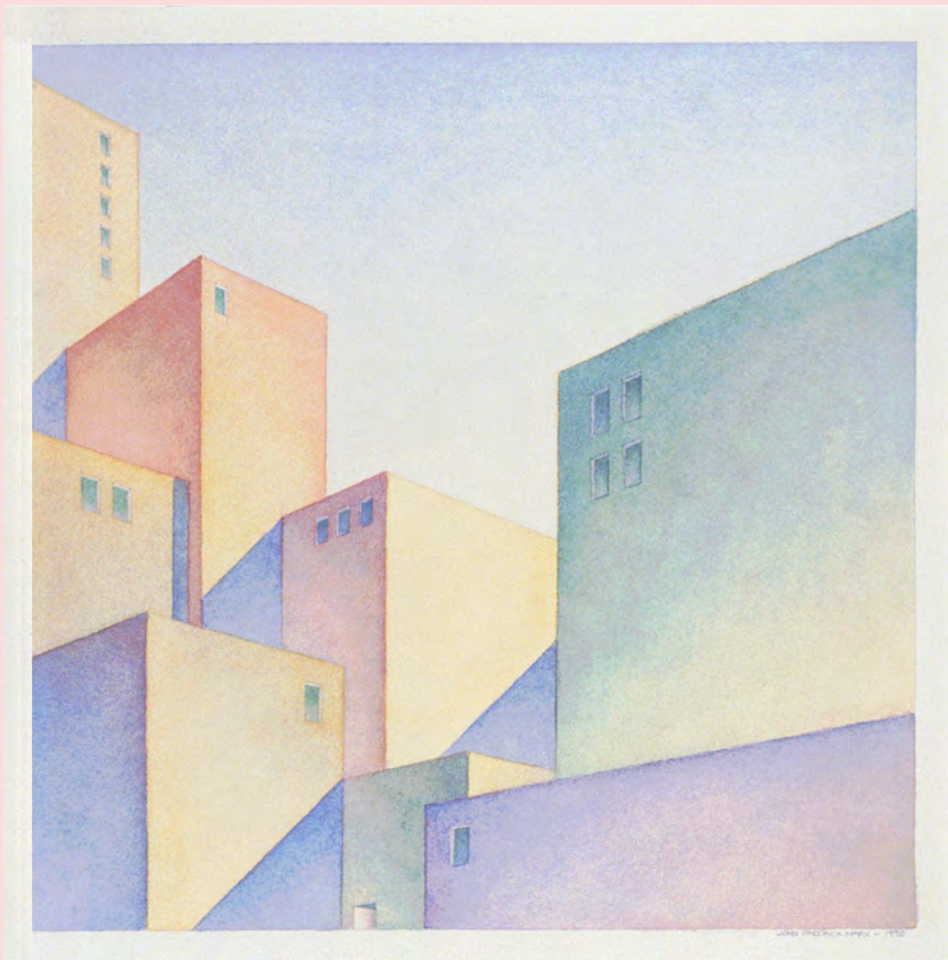
selected watercolours by John Marx

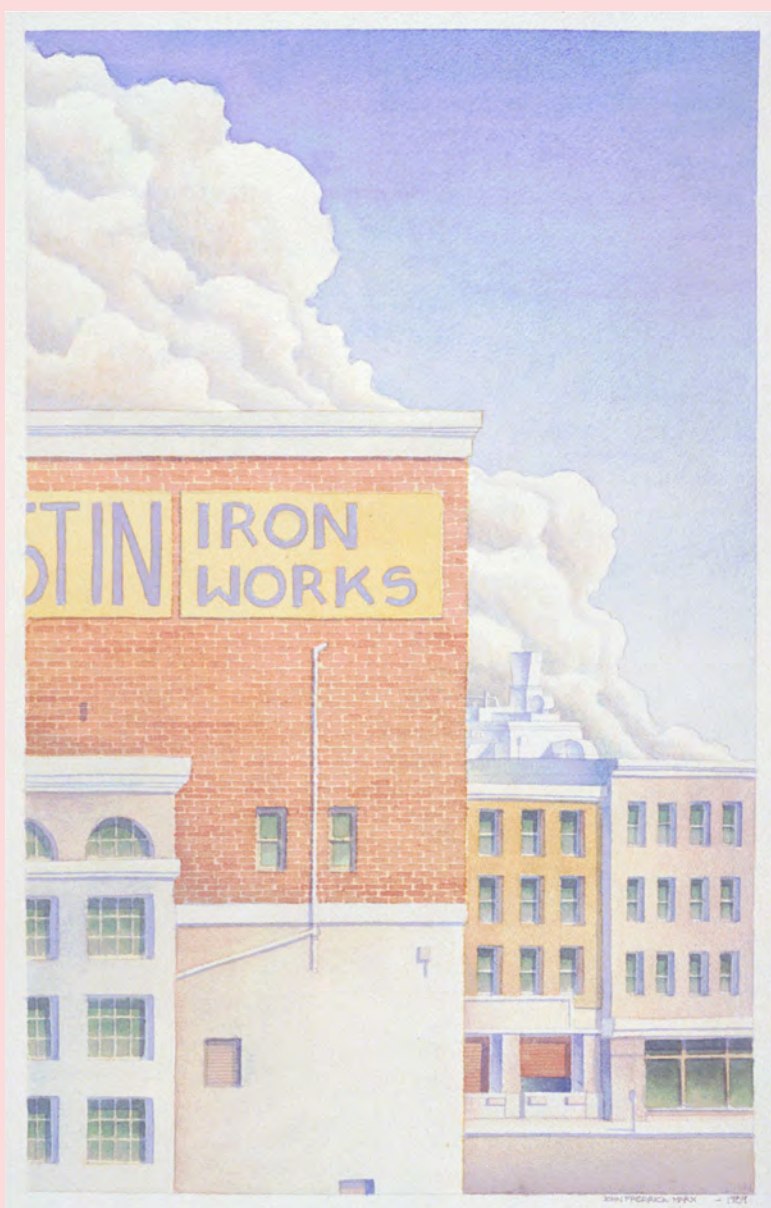
In an era of architectural production in thrall to the speed and potential of digital creation, the ability to hand draw, that elusive and exacting synthesis of hand, mind and eye, is slowly being eroded. Yet painting and hand drawing force the architect to envisage and imagine in a way that differs greatly from the artificiality of computer-generated imagery. Refining ideas of spatial awareness and dissecting relationships between form, colour and light, it is a highly nuanced mode of perception. Famously, Le Corbusier would paint in the morning and only turn his attention to architecture in the afternoon. Likewise, John Marx regards painting as a critical part of his oeuvre, cultivating a fertile reciprocity between buildings and art, as these watercolours eloquently demonstrate















At Heart a Poet

I know that
at heart
I am a poet.

A mind which thinks
camouflages, sometimes,
my feeling heart.

To think afresh, afar
is my lot, my chance,
oft misunderstood.

Science, engineering
geometry and imagination
are my bed fellows.

But imagination
and reason inhabit me
perhaps too richly.

The poet lives
in this vital world
of light, space, line and words.

My tears fall easily
across the ever-changing
landscape of my face.

Yet they moisten
and nourish my soul
as they trace my heart.

If only I had less knowledge,
knew not the point, line or plane
or the pattern of numbers

I might just feel much better,
And avoid economic landmines
or political missiles.

Too aware? Maybe.
Too sensitive? Probably.
Needing to love, definitely.

I know that
at heart
I am a poet

of space and lines
of words and thoughts
trying to compose a better world.



Ian Ritchie



**This page: spectacular pyrotechnics are a feature of Burning Man
Opposite: reframing the stereotypical dichotomy between 'cleverness' and 'prettiness' through Corb's Modulor Man and Mattel's Ken doll**

Dreaming aloud

Cultural vibrancy gives expressive shape
to architecture, argues *John Marx*

We are all, at a fundamental level, dreamers. Dreams can deeply influence our destinies, aspirations and goals. As architects, we are some of the world's grandest dreamers, and this comes in no small part from the sheer range of scales at which we dream ... from the room, to the building, to the city, to the region. At all of these scales we create a context for the fertile workings of life. In essence, we design for people, to give space in which they can realise their dreams, through our creativity and imagination.

My personal version looks like this: 'We strive to create buildings and cities that have a high degree of cultural activity, authenticity and a strong sense of community. We desire an engaged population that not only loves their environment, but also participates in its creation, and in its ongoing evolution. The extension of which means they feel responsible for its maintenance and improvement, and are inspired and empowered to infuse it with their cultural and artistic energy. They create traditions and rituals that carry this collective effort forward to successive generations. Ideally this vibrancy extends across the full range of socio-economic strata, so that everyone participates and enjoys these benefits. If they are successful, they will extend this caring sense of community beyond the physical environment, towards caring for each other's well-being, because they sense how each of us contributes to the success of our communities.'



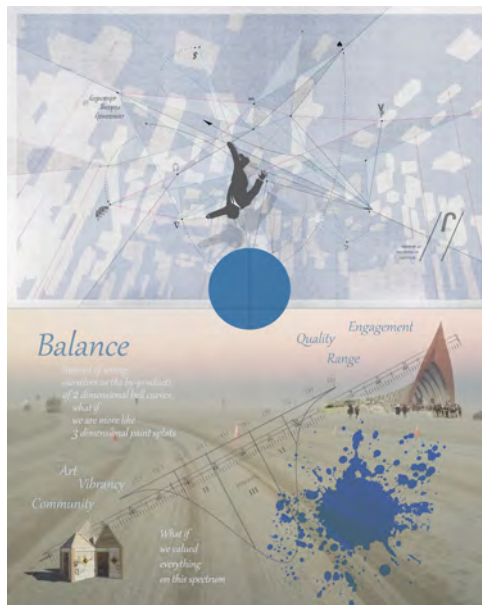
If we follow this dream back into the architectural profession, our goal might be seen as helping to create vibrancy. The dictionary tells us that *vibrancy* is: 'The state of being full of energy and life.' In the last twenty years vibrancy has become an architectural buzzword; ditto *green* and *sustainable*. But do these words always have a resonant meaning? How often, in the pursuit of architecture, are they used in a cut-and-paste way?

Sometimes, words need to be rescued and redefined to widen their meanings. The word *vibrancy* on its own is a self-isolating noun, and architects often use it in a clichéd way: a *vibrant* street frontage; a *vibrant* mixed-use quarter. Let me suggest a more challenging phrase – cultural vibrancy. This is something more than default 'energetic' architectural vibrancy, and in this case 'culture' is meant to be the arts and their related customs, traditions and values. It is the dynamic relationship between expressive forms of culture and the people themselves that makes this concept thrive.

The 'cultural' qualifier is significant as it makes evident how it offers the glue for a variety of social experiences integral to creating a sense of identity within their communities. Noted architectural theorist Christian Norbert-Schulz stated that, 'human identity presupposes the identity of place'. And the identity of places is to a large extent tied to a sense of belonging to surroundings. A bond to the particularities of the outer world. But it is in the three components that the core ideas about vibrancy merge into a meaningful entity

The richness of cultural vibrancy might be summed up as the relationship between three values: depth + range + engagement. *Depth* relates to the quality of an experience, how moving it is, how well the programme serves the population who uses it, how thoughtfully it was designed. This is the area where the architect and designer have the greatest impact. The concept of emotional meaning most powerfully comes into play here. Housing may be provided in a community, but is it housing that feels like a home, have the residents emotionally bonded with the space, to make it a 'vibrant place'? Is it safe, and does it feel safe? These are two sides of a dynamic equation, where both need to be present in order for the environment to be successful. How deeply do the residents 'love' their housing, or do they tolerate it due to a lack of viable options? This occurs over the entire spectrum of financial resources; a home does not need to be palatial to be loved. Architecture, however successfully functional, is only wholly successful if it contributes to a

This page: design for a poncho to be worn at Burning Man exploring themes of balance and range
Opposite: illustration questioning the dynamic between innovation and refinement. An unbalanced obsession with either can lead to unfortunate results



humanely articulated environment. Depth also relates to the emotional and artistic qualities of the architecture itself. How well does it uplift and enhance the lives of the people who encounter it? How well do the proportions, scale and materials create a richness that resonates?

The *range* of cultural vibrancy depends on how wide and inclusive the groups served by architecture are. The essential ingredients of range are people, objects and the design community. The wider the range of people served, the greater vibrancy there will be within the community, and as a result healthier and more sustainable. This includes socio-economic, cultural and religious factors. Urban renewal projects often tend to focus on achieving ‘vibrancy’ for a specific group of people from which the project will derive income, the wealthy, the entitled, the overachievers ... to the exclusion of those people less fortunate. Communities are significantly richer when their members represent a wide range of interests and backgrounds.

Range is a very balance-dependent concept. On the one hand, we as a humane species thrive (diversity-adaptability are the key traits which ensure our survival) because we don’t all want the same things at the same time; on the other hand, we also tend to form ourselves into groups with like-minded interests or traits. It is the creative dynamic between these two conditions where healthy and vibrant communities thrive. Existing on either extremes of this equation can have undesirable and unintended consequences.

From an architectural object or project standpoint, range includes the way we judge the value of the work that is created. This aspect of range is well illustrated at the annual Burning Man festival, where some 70,000 people gather at a temporary city in the Black Rock Desert of Nevada to celebrate creatively. Among the many events at the 2017 Burning Man, more than 300 artworks were set out on the Playa. These ranged from ‘museum grade’ sculpture, to the Jedi Dog Temple designed by a five-year-old boy. The participants recognise that everything on this range has a deep value to them, because, in the case of Burning Man, each art piece is given as a gift, and each was created from the heart. However they also embrace the idea that the nature of each piece is different and adds value each in its own special way. We, as architects, and as a culture in general, might benefit from embracing the concept of design value across a much broader spectrum than we currently permit.

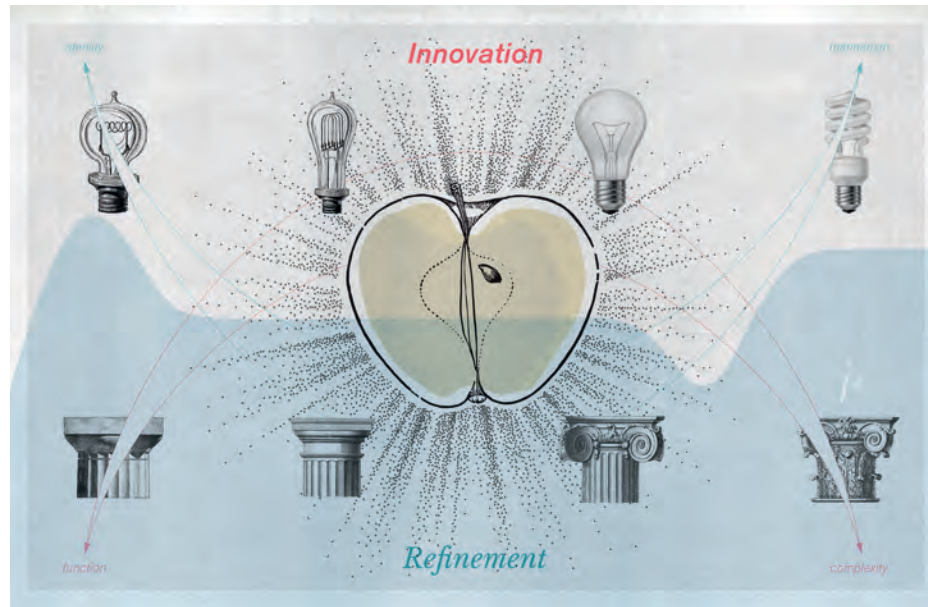
From a design community standpoint, we tend to think that ‘an exclusive tier’ of architects provide leadership and vision to support a progressive future. While this is a critically important aspect of our profession, it only relates to two per cent of what gets built. Referring to Frank Gehry’s public comment, ‘Ninety-eight per cent of everything that is built and designed today is pure sh*t. There is no sense of design, no respect for humanity ...’

If we embrace the importance and unique value of all things built over a wider range, we need to ask ourselves, how have we

served and rewarded the larger part of our peers, who create this other 98 per cent? Where should we set the bar for the emotional-artistic qualities of mainstream architecture? We currently, and rightfully, set the bar quite high on issues of sustainability, accessibility, material science and physical comfort. These more technical aspects are certainly a major part of an equation of how the profession serves the public, but it is not the whole picture. They will not solve our current issues of alienation and banality, for that we will need to deeply address issues of emotional meaning and its relationship to a complex design process.

We gain from being aware of the range of individual and collective design values. We dine at a feast not only of cutting-edge design, but of the dualities of old and new, minimalist and lyrical. Architectural progress is never strictly linear. It is multi-dimensional in its types of creativity and potential values. Their range is as important as moments of design brilliance.

Within this context, it may make sense to embrace the notion of style, and to expand the range of stylistic options we consider ‘of our time’. The breadth of this range is as important as its novelty. Communities thrive when most people in them understand the range of diversities and adaptabilities that make them tick. We don’t all want or think the same things at the same time, but we have no trouble forming ourselves into groups which not only absorb individual differences, but encourage them.



Brilliant designers produce flashes of singular vision. Those that follow, or question those visions critically, produce their own individual variants or refinements of them; in other words, they enhance and add values to the original vision. A brilliant architectural innovation should trigger further innovations – and not necessarily immediately. It took 2,000 years for the simple Doric column to evolve from the cartoonish and heavy temples of Agrigento in Sicily in 480BC, to the refined Tuscan columns of Palladio. A more recent example might be Richard Meier extending the work of Le Corbusier. Today, refinement, as a basis for an artistic practice focus, is largely perceived as second-rate. Changing this to critically endorse refinement as an acceptable design endeavour could create an unparalleled opportunity for mainstream architects to explore ...

Engagement is the direct personal interaction you might have with others and the community at large, both passive and active. Most of us have a passive relationship with our environments; we go to the park, we go to our favourite café. Active forms include making things such as art or music, participating in governance of the maintenance of your neighbourhood, or buying a new bench for the community to enjoy. If you don't feel personally engaged with your community, whether your street, your neighbourhood, or the vast community of humankind, you will become isolated.

An illustration of this, again from *Burning Man*, relates directly to the positive effects of engagement. Imagine a city of 70,000

people. As you walk around this city, you see no litter, and if you continue to walk from the city centre, where there might have been a professional group cleaning, you still find no litter on the outskirts. You also notice there are no rubbish bins. On the Playa, participants not only care for their own litter, but will pick up the litter of others, and because of the absence of rubbish bins they will take this litter back to their camp, and ultimately back to their hometown. So ingrained is the idea that this is your community, shared with others, that people care deeply for the appearance and cleanliness of the whole environment.

Engagement also increases the value people find in the arts and architecture. At one level, engagement can mean education. The City of Chicago school system used to teach classes on the city's rich architectural history and its relevance to the wider global evolution of architecture. This taught residents to understand architecture better, and to develop a sense of civic pride in their community. As a result, Chicago remains one of the best cities in America for the quality of its architecture.

Vibrancy leads emotional meaning, where space becomes place. Imagine your favourite holiday destination. Why is it memorable? The tastes, textures, sounds, smells: all conspire to create an image of a time and a place still warm in your heart. What you are seeing, occupying, savouring – in a word experiencing – is emotionally meaningful. This is one of the primary aspirations in the making of architecture. Emotional meaning aids in reconnecting the inner and outer

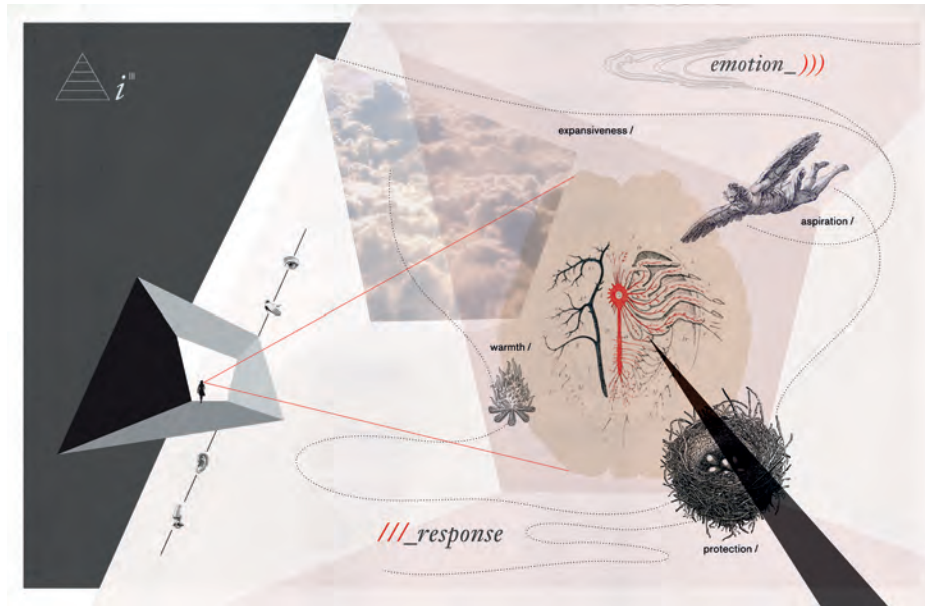
dimensions of our world.

When Modernists, scientists and society in general chose to prize reason over emotion, architecture detached itself from the world it was meant to improve. The cold rationality of performance and concept-based design left out the intangibles that make us human. Estrangement followed. Design without rigour inexorably turns capricious. On the other hand, design without heart lays out urban cemeteries. When rigour and heart are balanced, they infuse the city fabric with a sense of place. Bonding and belonging ensue. Emotional meaning in architecture occurs when the elements or the character of a space arouse an emotional response in the user that is meaningful, significant and enduring.

In an attempt to understand the structural relationship between architecture and people, can emotions be conceived as a cognitive basis for design rather than being unceremoniously dismissed as arbitrary or merely personal opinions?

It is reasonable to suggest that few members of the public experience an emotional connection to today's architecture. Design as exclusively verbal-rational-linear problem-solving often neglected this aspect, producing an ecosystem out of balance and fraught with undesirable consequences. The restrained purity of Mies established a brilliantly austere approach to Modernist design, and yet, in the hands of those lacking that rare poetic touch, it brings a chilling austerity to the global urban imagery. Perhaps adding a visual-intuitive-nonlinear design approach,

This page: the concept of emotional meaning in architecture arouses emotional responses that are meaningful and enduring
Opposite: illustrating the balance between logic and intuition. Intuition is currently undervalued in the architectural profession



in balance with its opposite can create a more holistic and emotionally engaging result. This has traditionally been known as an 'artistic' approach, but it can apply, as it does in Silicon Valley, to the art of problem-solving in general.

Broadly speaking, current design tends to fall into two trends: sanitised Minimalist boxes rooted in a mid-century modern revival, or Wild-West formalism with fashionable architecture on stylistic overload. Either way, we face a particularly aggressive challenge on the emotional meaning front. Pervasive computing has enabled reckless self-indulgence from those architects seduced by innovation for its own sake, whose formal language has imploded under the pressure of originality at all cost. Both camps operate without a working understanding of the role of emotional meaning in architecture.

Thinking took over from feeling and humanities got the short end of the stick. It would be all well and good if individuals were machines, but we know that to be untrue. Still, we have yet to bear witness to a change in outlook. It is our contention that emotion links environments to their users and is fundamental to the architectural experience. Its role in architectural discourse is not just desirable, but necessary, as it would greatly expand the capacity of architects to symbolically reach the people they claim to design for.

While a ubiquitous response, emotion's specific realisation is anything but universal. It differs in every person. The fact that two individuals can experience opposite

emotional meaning in the same structure establishes a common ground between them even in the face of this polarity.

Embracing the notion of emotional meaning opens a door to an expansive range of design intents. The most common emotion we might be tempted to discuss is the idea of beauty, which in a classical sense is treated more as a philosophical ideal than an emotion. Human emotions are much wider in scope than that. Should a building be hopeful, welcoming, safe, and warm? In addition there are emotions which we might consider the ramifications of their presence in our designs, such as ... brutal, heavy, oppressive or austere. Should it make us feel small, empty and inconsequential. In history there are examples of situations where these emotions were considered appropriate to the intended symbolic message of the building ... imagine the emotional programme for the Palace of Versailles.

Another aspect of emotions as design factors is the question of appropriateness; do the emotions produced match the programme and function of the building? Too many hospitals simply portray emotions of efficiency and cleanliness (where sterility has a double meaning), but is this all we should expect a hospital to express? Shouldn't hospitals also feel caring and project a sense of healing, a sense of compassion and empathy? Form follows many things; adding emotional meaning to the mix might result in buildings people can fall in love with again.

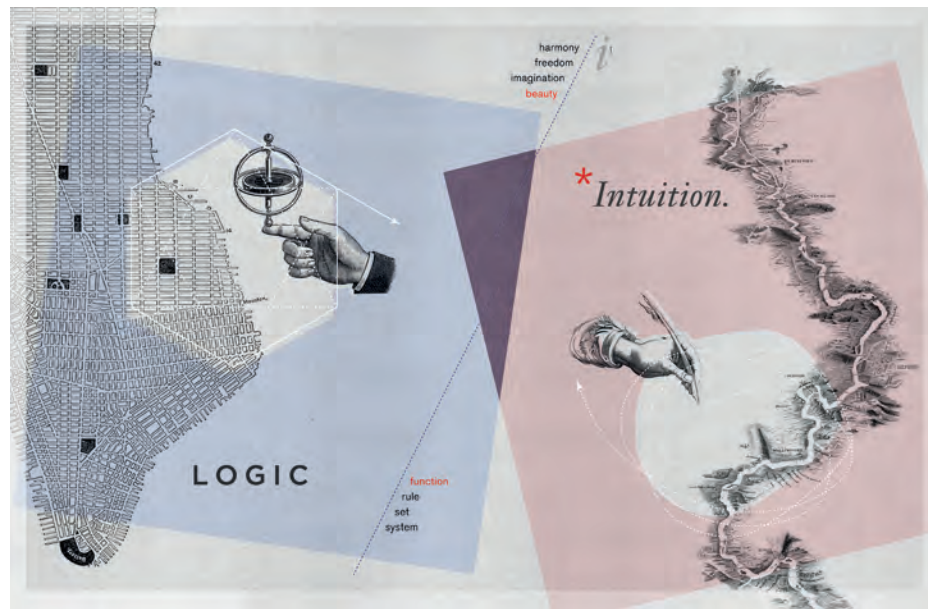
Where did the resistance to emotions as a design factor come from? Terminology might

have something to do with this discursive impasse. Some words, like beauty, can be so historically charged that their association with what are held as outmoded notions or past memories must be erased in the formative processes of new generations. Over the last few decades we have so distanced ourselves from the creation of beauty and emotional meaning that one wonders if the bulk of the profession feels comfortable addressing it at all. It raises the question as to how we might go about reintroducing it within the context of education and professional development, as well as convincing the public and our clients as to its overall value.

Self-indulgent form-making for its own sake is an empty exercise, negating the qualitative function of architecture in human existence. Self-expression, on the other hand, is the filtering of circumstances and contingency through the sensibility of an individual, resonating with the socio-physical character of the site.

Emotional meaning supplies architects with the capacity to discern the priceless against the dispensable. It helps to re-establish the general public's trust and affection toward architects. It constitutes an opportunity to re-engage clients to the value of architecture. It resets the architect's outlook to design with people and art as indissoluble essentials of architecture.

Within a notion of the ascendancy of emotional meaning in the design of architecture, there are four concepts we must come to terms with in a critical fashion, and thoughtfully bear in mind.



These issues will exist in any effort to design; what is important is to understand the positive and negative aspects of each, in order to create the best possible outcome.

The nostalgic: a sentimental longing for a past period, which is romanticised through the artistic artefacts of that era. The fallacy of nostalgia is that, when the conditions that produced the artefacts no longer exist and the human condition has progressed from that point in time, this past loses its relevance and can no longer be credibly recreated. Of what value is history, when does it lose its meaning? Why can't we refine a 'style' beyond its 'trend by' date?

The superficial: the cult of the physique. The superficial is still the focus of normative notions of beauty. Appearance over content is the quintessential antinomy of this ideal. Rather than being a popularity contest, architecture aims at longer-term values. As the phrase 'beauty is more than skin deep' helped us to look beyond appearance as a primary evaluative criteria, it also spawned the idea, in the arts, that anything that was beautiful was by definition superficial. It turns out that there is a deep emotional need in humans for beauty.

The commercial: unrestrained consumerism and transient gratification. When the primary purpose of the design of an object is to pander to the base instincts of a group in order to maximise sales, the end result is most often products that are shallow and short-lived.

The inauthentic: something that is untrue to the conditions and nature of its time, material or technology; something that

appears to be what it is not.

Emotional meaning alone is not the basis of design; but its absence renders architecture without merit. It is the inscrutable *raison d'être* that links the act of building to the sublimation of the inner self; a mixture of pleasure, bliss and rootedness. The physiology of the body starts registering the presence of an artefact designed with intent to go beyond the circumstantial practicalities of the programme. It is intelligible in its nuanced aspirations, while providing the bond to hold the personal blocks that form the whole of humanity. Emotional meaning stirs catharsis to the collective and that unfathomable togetherness that resets individuals' unwavering commitment to kinship. This is territory foreign to rational planning or the quicksand of engineering analysis.

This reflection is presented with the aim of jumpstarting a dialogue within the architecture community, which itself has become remote and isolated. In weaving emotions back into evaluation criteria, we are advocating a disciplined practice of design where the metaphysical layer that always existed in architecture, whether in religious or secular centuries, can find an explicit and sustainable resolution into a material arrangement that speaks to the concerns and emotional bandwidth of 21st-century inhabitants. In pursuing a tighter fit than ever before between form and emotion, architects can once again exercise their capacity to steer society toward the realisation of a current understanding of citizenship, well-being

and healthy participation of community members in the public realm.

Within a discussion of the need for cultural vibrancy and emotional meaning in design, relative to our current conditions of alienation, one might ask where our work would fit in? The artistic extension of this, for Form4 Architecture, is to pursue an architecture based on the concept of 'lyrical expressionism'. This is one version of a response, both personal and strategic, in that it takes account of context and history. Our peers may follow this line of creation, or discover a multitude of wonderful alternatives with which to respond.

Lyrical expressionism is the creation of emotionally expressive and fluid forms, combined with narrative. We don't design in this manner exclusively since, as general practitioners, we encounter numerous design challenges, each with a unique sense of appropriate formal solution. Sometimes this is context-based, where we limit ourselves to 'fit' in, sometimes it is budget-based. In all cases the intent is to create emotionally meaningful work that provokes a positive, thoroughly engaged response from the community it serves.

The work that follows exemplifies this direction towards lyrical expressionism. The challenge is to balance expressive formal power, an evocative narrative and a strong fit with the functional programme that will bond with, and stimulate, the physical and cultural context. The degree to which each of these elements supports and extends the others, fundamentally determines the success of the design effort.



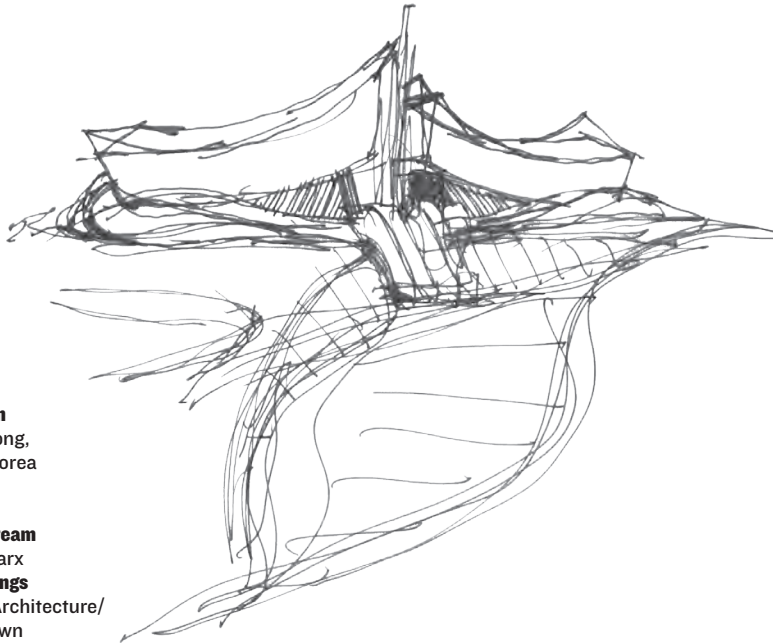
**Burning Man revellers
in the Nevada desert,
exemplifying the intensity
of community engagement**

PORTFOLIO

selected works 1998-2018

Crashing Waves Tongyeong Music Hall

Location
Tongyeong,
South Korea
Design
2009
Design team
John Marx
Renderings
Form4 Architecture/
Downtown



The architecture of Crashing Waves (Tongyeong Music Hall) is doubly metaphorical. It expresses both the intensity and vibrancy of Korean composer Isang Yun's music, and the potential resolution of the often severe political tensions between North and South Korea.

The planned site of the 1,300-seat auditorium is an oceanside bluff overlooking South Korea's Tongyeong harbour, and the design is conceptually oceanic, expressing overlapping currents.

The upper level of the building resembles a frozen undulation of waves; the podium, at ground level, suggests a landform with calm water at its base. The form then morphs into a spatial crescendo which culminates in vertical glass elements that define the lobby. These elongated, slightly arched pieces are sculpturally emblematic of sea spume. The general impression conveyed by the articulation of the form is of abstracted waves crashing together, symbolically representing the sea, Isang Yun's music, and the two Koreas coming together, at first in a bold way, then finally calmly, their waters intermingling.

The wave forms are also highly functional in determining the massing, section and site plan. The metaphorical boldness is functionally modulated by a series of flowing ramps that stretch from the entry doors down to the parking area. And it is these fluid elements that trigger, and resolve, the dynamism of the form and volumes as a whole.



This page, top:
an evocative
generative sketch,
representing
the power of
crashing waves
Left: waves
abstracted into
architectural form
Opposite: the new
building overlooks
Tongyeong harbour



Innovation Curve

Palo Alto

This building pioneered the design of overtly symbolic architectural forms in Silicon Valley. Previously, buildings serving the IT and 'bits' industries were generally pragmatic and unexpressive. The wavering horizontal blue ribbon across the Innovation Curve's main facade mimics the highs and lows of typical research and development timelines, conveying the tensions and triumphs involved.

The clear glass envelope, with glass shading fins, creates a lyrical crystalline form. Deep horizontal brise-soleils, glass-finned verticals, and a deep roof overhang complete a shading strategy which contributed to an almost net zero-carbon LEED Platinum rating. Not far away is Form4's zero-carbon Hanover Page Mill building.

The symbolic innovation curve mediates the compound's urban character, and its internal parti. Terraces break down the scale of the building along the inner campus, creating relaxing places for people to work or meet. Silicon Valley tech campuses are usually closed to the public, but the Innovation Curve breaks with this tradition by creating clear public access from the road to the vast inner courtyard garden.

The scheme is on a significant historical hotspot in Silicon Valley, at the edge of the Stanford Research Park. The buildings previously housed Facebook's headquarters, and earlier Beckman Instruments, the inventors of the oscilloscope.



This page: articulated by a sinuous 'ribbon', the facade mimics the evolution of an innovative idea
Opposite, top: the luminous interior
Below: shallow reflecting pools surround the building

Location

Palo Alto, California,
USA

Design

2014

Construction

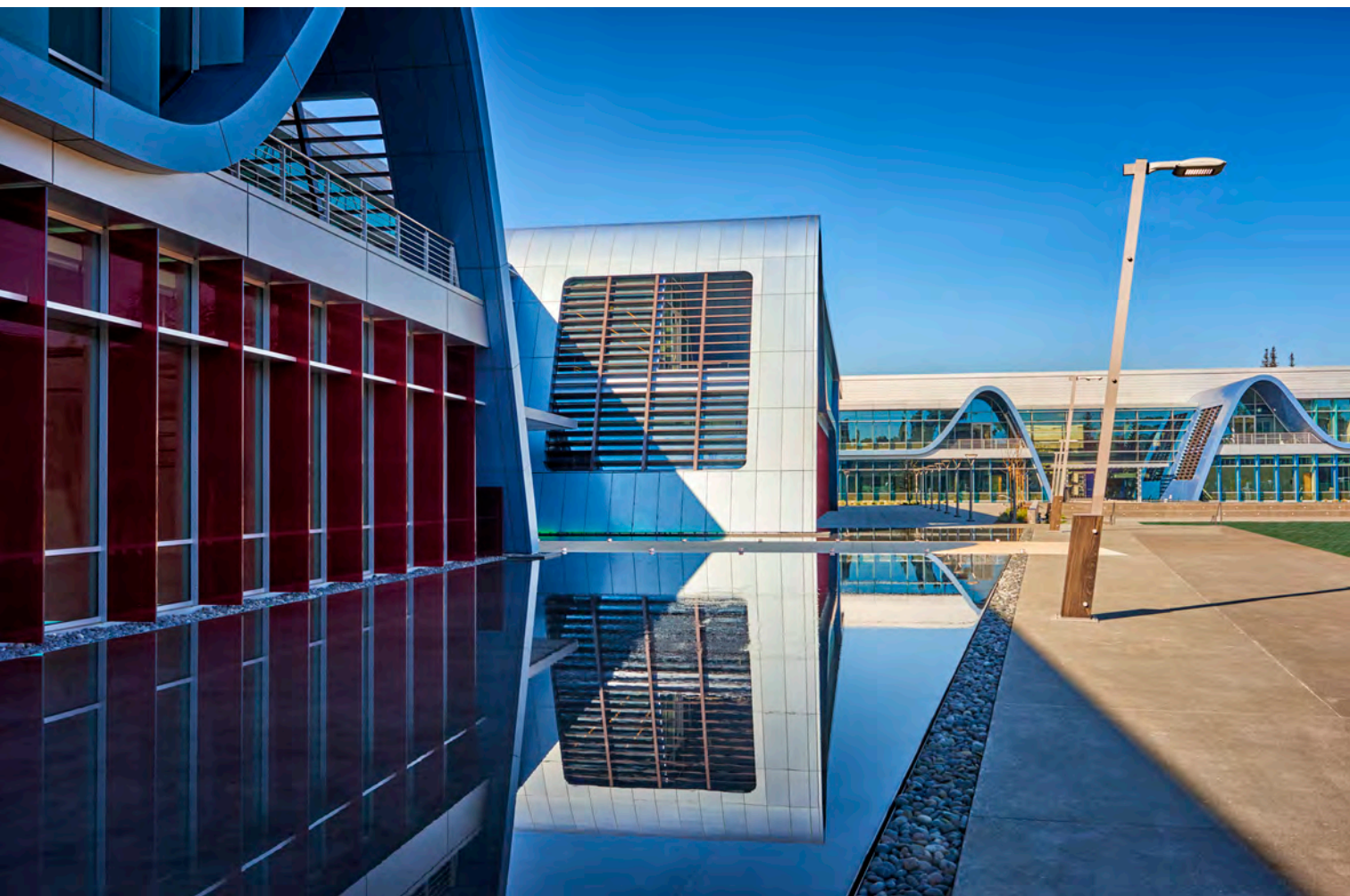
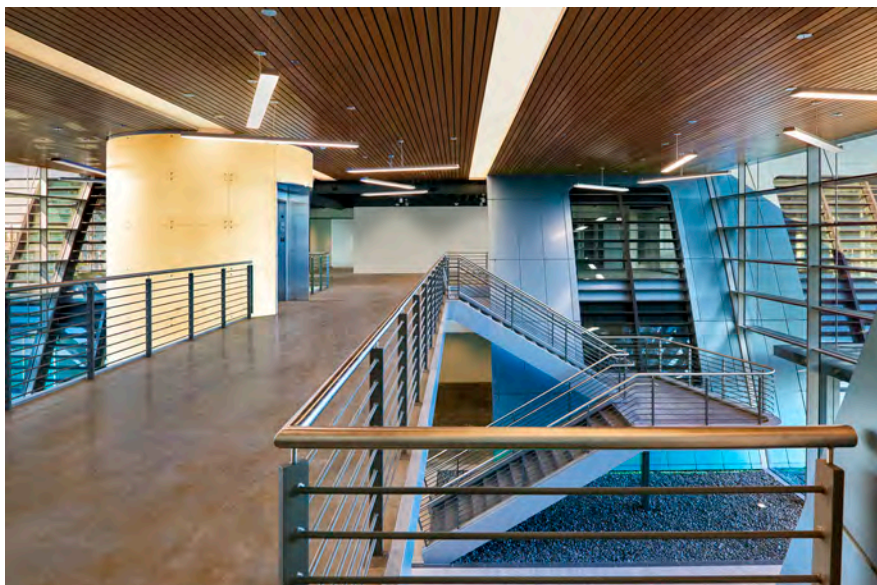
2017

Design team

John Marx
Robert Giannini
James Tefend

Photographs

John Sutton



Sea Song Big Sur

The design of the Sea Song pavilions is an intensely idealised Modernist architectural response to nature in one of California's most legendary landscapes. The sleekly refined forms, suggesting a trio of manta rays, counterpoint the rugged wilderness of the ground around them, and the surges of the Pacific below. Thus, a confluence of natural and designed sublimities.

The architectural composition might also suggest cell-formation, an alternate topography, or futuristic pavilions. Perhaps most obviously, these pure biomorphic shapes evoke shelled organisms that cling to rock formations in a seamless extension of the marine ecosystem.

Sea Song is designed to deliver a zero-carbon environmental footprint, via features such as photovoltaics, self-cleaning glass, rainwater retention, and xeriscape landscaping to secure water sources. The curvilinear shaping of the three pavilions produces the unbroken fluid geometry of the envelope. Internally, the enclosures are all open living spaces. Concrete baths anchor the forms to the earth, but everything else has a floating quality.

Concrete split cores hold service functions, maximising the open and column-free areas, which deliver clear vistas over land and sea. The interior surfaces feature warm, natural materials and carefully positioned artworks, but are otherwise deliberately plain, in contrast to the complexity of nature outside.





This page: the sleekly refined forms are poised on the edge of the Pacific Ocean
Opposite, top: supple roof forms oversail curvilinear pavilions
Below: fluid geometry is combined with material transparency

Location
Big Sur, California, USA
Design
2014
Design team
John Marx
Renderings
Form4 Architecture/
Downtown

Luminous Moon Gate

Taichung City Cultural Centre



Luminous Moon Gate is a museum and library conceived as a 'lantern of knowledge' that would act as a dynamic catalyst for cultural and community development. It was designed in 2013 for the Taichung City Cultural Centre International Competition for a site on the edge of the new Gateway Park in Taichung, a city on Taiwan's west coast.

The library, a 10-storey vertical oval, and the museum, a lower horizontal oval, form a symbolic gateway. The structures are largely glazed, to reveal a beacon of activity at night, and a sense that collectively sought knowledge leads to collective achievements.

In traditional Chinese iconography, a moon gate symbolises the entrance to the Garden of Paradise. The library's majestic scala regia leads to the Great Forum, an allegory of the progressive power of knowledge, accessible to every citizen. And in the vast vault of the Great Reading Room, patrons and visitors gather to learn or imagine, and have views of the park and city beyond.

While the forms are iconic in nature, the underlying organisational concepts are fundamentally based in classic placemaking methods. On an external basis, urban edges and plazas are well activated, on an internal level, the grand interior public spaces are strategically located and expressed in the building forms.



This page, above:
dramatic internal
spaces connect with
the surrounding city
Below: the powerful
oval form alludes to a
traditional moon gate
Opposite: a heroically
scaled staircase,
a homage to Ledoux,
leads up to a soaring
forum space

Location

Taichung, Taiwan

Design

2013

Design team

John Marx

Pierluigi Serraino

Felix Lin

Renderings

Form4 Architecture/
Downtown



Oasis Technology Centre Santa Clara

The architecture of the Oasis centre combines technological and organic qualities. At 300,000 sq ft Oasis can be considered as a piece of techno-tectonic. But the scheme sits on a tongue of pushed and pulled earth, which creates a choreographed shift from the suburban to the urban on what is otherwise a tight site in Santa Clara.

The design is a prototype for a workplace whose layout, form and spaces convey an almost immaterial lightness and friendliness, yet create a secure harbour for cutting-edge tech developments. The design intent was to produce a scheme that radiates a desire for technology.

The architecture brings opposites together: the scheme is big but accessible, permeable yet private, public yet intimate. Oasis is therefore an architectural poster child for the future of placemaking in Silicon Valley. Beneath the main floating glass volume, a dynamically arranged sequence of retail experiences activates the street. As a metal and 'green-roofed' ribbon curls into a canopy, a spacious public café at the end captures the pedestrian flow and acts as a viewing platform. The Big Sky Garden, a three-storey segment which rises up from the ninth floor, is an urban corporate retreat internally, yet also, seen from a distance, an 'aspirational place'.

**Location**

Santa Clara,
California, USA

Design

2015

Design team

John Marx
Robert Giannini

Renderings

Form4 Architecture/
Downtown



Opposite: on a tight site, the building finesses a shift from urban to suburban
This page, above: the architecture is permeable, activating the ground plane
Below: beneath the floating glass volume retail and cafe spaces engage with the street



Falling Lotus Blossoms

EON IT Park

Falling Lotus Blossoms is an elegantly arranged quartet of buildings totaling four million square feet, a grand scale that counterpoints the previously almost untouched rugged countryside around Pune's EON Free Zone. The form of the buildings is inspired by the petals of India's national flower, the white lotus. Responding to the often extreme heat and humidity, the 'petals' were arranged like a four-leaf clover in plan, with an open space at its centre. The buildings contain semi-conditioned, shaded atria, used as social spaces.

Raised above the ground plane, the complex also invokes a teleological dimension as a quasi-temple that signals the future of technology, with its own iconography. The deliberately iconic architecture of Falling Lotus Blossoms is designed to exemplify technology as a transformative force in India's contemporary architecture. Technology is changing architectural reality in India, for example in demonstrating what architects can achieve in terms of mechanical systems.

These buildings, in the seventh largest city in India, are the first of their kind in Pune's EON Free Zone, the most ambitious single IT development hub in the country. This zone is effectively a testbed for democratic India's international tech competitiveness, not least in relation to China's booming tech sector.



**This page: colourful, landscaped social spaces are at the heart of the complex
Opposite: a quartet of petal-like forms signal the future of technology as a transformative force
Below: each 'petal' encloses a courtyard**



Location
Pune, India
Design
2014
Design team
John Marx
(design architect)
NPAPL Architects
(executive architect)
Photographs
Craig Auckland,
Fotohaus
PixelDo Media

Urban Frames Palo Alto

The design and placemaking strategy for the Urban Frames mixed-use development combined classical and modern architectural syntaxes which allow its office and residential elements to sit together comfortably despite their different scales. The scheme has undoubtedly introduced something new to the city, in terms of townscape and type. The articulations of elevation and plan, above two levels of underground parking, are keyed into a pattern of streets and courtyards that are permeable to pedestrians, but not to cars – except along the outer edges.

This concentrates as much social and occupational activity and energy within the site as possible. The design grammar of the facades is clear-cut and cohesive: an array of thick, slightly cantilevered white cubic frames are set on travertine podiums. These are more or less solid to provide secure privacy for the residential portion, but have openings at ground level to provide access to offices. Crucially, the coexistence of axial perspectives and irregular, non-perspectival vistas gives the scheme a visual and spatial richness of mass, and effects of light and shade. It therefore reads as a place of habitation, rather than as a more typically defined domestic or commercial development.





Location

Palo Alto, California
USA

Design

2015

Design team

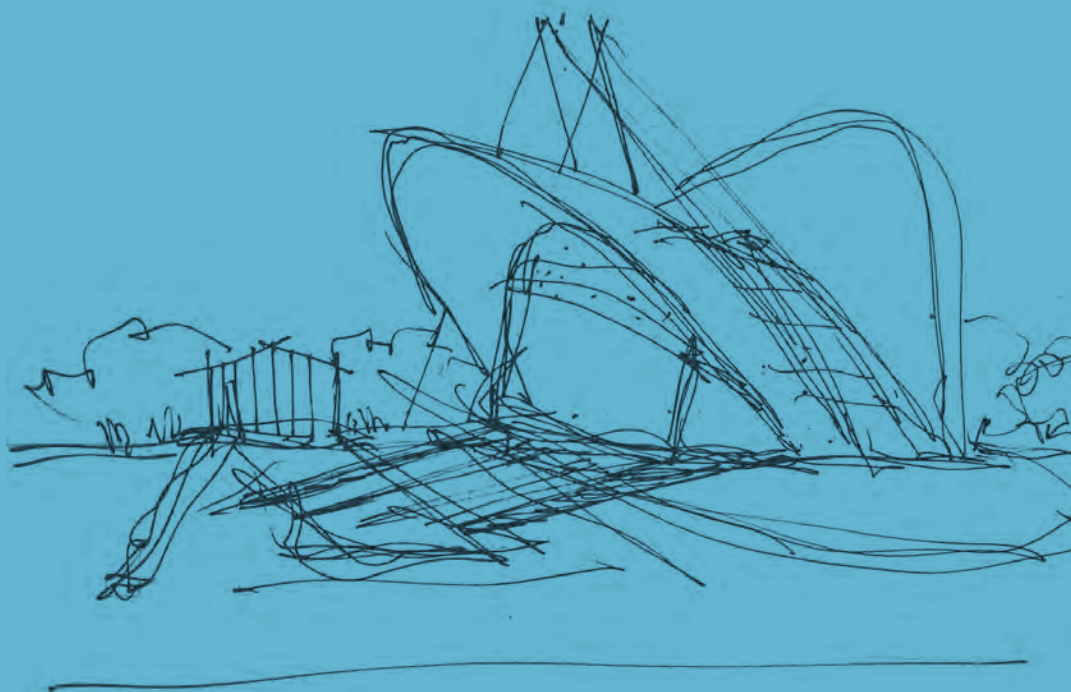
John Marx
Robert Giannini

Renderings

Form4 Architecture/
Downtown

Opposite: the site clearly reads as a place of habitation
This page, above: combining office and residential elements, the scheme aims to consolidate social energy and activity
Right: the sequence of courtyards is permeable for pedestrians







This page: Sanguine Lily, a proposal for a chapel at Dublin's Glasnevin Cemetery commemorating the centenary of Ireland's Easter Rising. The assertive figuration of the scheme is at once literal and allegorical
Opposite: generative sketch of the proposal



Emblematic of
Modernist anomie
and a disconnect from
human scale and
activity, clusters of
high-rise dwellings
in Hong Kong contrive
a familiar sense
of placelessness

Making places for humans underscores Form4's crusade against the contemporary spectre of Notopia, says *Catherine Slessor*

WE CAN MAKE PLACES

In an age of increased cultural and social homogenisation, the elusive and often contested notion of place has assumed a renewed importance. The current era is dominated by rapacious globalisation, the systematic erosion of difference and the commodification of culture. While representing material advancement and social liberalisation, these forces also invariably involve the destruction of traditional cultures and a disengagement with the past. What is now prized most by the multinational corporations who stalk the globe are universal systems of value-free exchange and profit.

Left to the mercy of market forces, the commercialisation of land has spawned the selfish city, as described in the AR's recent 'Notopia' manifesto as being 'disfigured by the interests of bankers and stillborn in vision and unable to cope with mass urbanisation ... one building next to another does not make a place and many buildings do not make a city'. Notopia is 'a warning sign that the metropolis as place of exchange dialogue and delight between diverse groups of people is being exterminated. Buildings alone do not support life.'

Architecture's ambivalent relationship with modern capitalism and its growing dependence on arcane treatises and self-justificatory theories has also resulted in the neglect of a diversity of physical environments that have the potential to deliver empirical inspiration for art and invention. To an extent, architecture has become a marginalised freemasonry, its creative potential reduced to eclectic wrapping paper adorning slabs of dehumanised corporate space planning. From Dallas to Dhaka to Dubai, the outcome of this banal hegemony of the built environment is only too apparent.

With hindsight, the reductivising tendencies of Modernism have not always been the liberating forces of advancement, prompting a critical re-examination that gained new momentum in the postwar years in an attempt to find a balance between progressive ideals of modernisation and the vernacular forms of particular regions. This was the age of architects

such as Luis Barragán in Mexico, Oscar Niemeyer in Brazil, and Sverre Fehn in Norway, who synthesised the influence of Modernism with climate, culture and a sense of place.

In some ways, the idea of placemaking is a contradiction in terms. The underlying characteristic of place is a resonant and emotionally meaningful connection with people, space and activities. Place evokes feelings of nostalgia, yearning, melancholy, it fuels memory and a sense of identity and belonging. The idea that this can be concocted or contrived by design or algorithm seems patently absurd. Yet though 'place' connotes an environment evolved over time, shaped by the currents of use and age, this can also lead to sterility. The clogged arteries of Venice in the summer come to mind, as does Paris inside the Périphérique, petrified in preservationist aspic. Similarly, the idea that place cannot be modern or temporary or choreographed instantly is just as pernicious.

The art of placemaking mines everyday life and perception for intimations about a truly progressive future. It aims to sustain an intimate and continuous relationship between architecture and the local community it serves. Crucially, it learns from experience. It tinkers, crafts, accepts, rejects, adjusts and reacts. It is immutably rooted in the tangible realities of its situation – the history, human values, traditions, technology and culture of a particular locale.

The concluding sections of this monograph explore ideas of place across various scales, from the macro, considering California's recent history as a crucible of modernity, to the micro, the unprecedented interior landscapes of Silicon Valley and how conventional notions of the workplace continue to be radically reshaped by powerful tech companies. In this, Form4's architecture is consistently considerate in its response to place, even where none might be said to exist, channelling an agility and an awareness that goes beyond the creation of objects in landscape to contrive a meaningful resonance with place and users. For Form4, architecture does not stop at site boundaries.

Designing at the evolving frontiers of possibility, poetics risk and emotion

From its pioneer origins to today's progressive
tech economy, California's irresistible rise is based
on a way of seeing anew, contends *Jay Merrick*

The discovery of gold at Sutter's Mill in 1849 (bottom left) lit the touch paper on the Californian dream. Prospectors and immigrants flocked to its shores by ship (below) and by the newly completed transcontinental railroad (bottom right) marked by the ceremony of the 'Golden Spike' in 1869

As part of their *Time Space Existence* exhibition at the 2016 Venice Biennale of Architecture, Form4 Architecture produced 12 visual poems. Their subtle combinations of geometric effects with human and organic figurations have a delicately poised, fugitive quality – Modernist, certainly, but with an alchemical aura that might have been supplied by a suntanned Dr Dee, teleported forward from the 16th century.

A very particular kind of phenomenology is afoot in these visuals. There are short mantras of fertilising words: purpose, desire, wisdom, influence ... seek, contemplate, reach, pursue ... core, context, continuum ... powerful, discordant [12 tone] waves will crash ... path, causeway, track. And there are fragmentary statements, such as *to locate an equipoise of variables, and constantly risking absurdity* – the latter is the title of a 1958 verse

by Californian Beat poet, Lawrence Ferlinghetti.

Are Form4's visual poems the work of distinctly Californian architectural psyches? Do they reflect the ambitions of the state's characteristic citizens – the perma-churn of newcomers, entrepreneurs and rebels who operate in what John Marx, originally from Illinois, describes as 'edge conditions in the world order'? These conditions have encouraged unusual architectural explorations and perceptions, like this one from Reyner Banham in 1971: 'Los Angeles is the Middle West raised to flashpoint, the authoritarian dogmas of the Bible Belt and the perennial revolt against them colliding at critical mass under the palm trees. Out of it comes a cultural situation where only the extreme is normal, and the middle way is just the unused



reservation down the centre of the freeway'.

At the Ur level, Californian architecture remains the product of the original 19th-century commercial and technical

developments in and around its two dominant cities, San Francisco and Los Angeles. The beginnings of their power, and their subsequently bipolar zeitgeists, flowed from three seminal events. First, the California Gold Rush, which began in 1849 at Sutter's Mill on the American River and spread through northern and central portions of the state; second, the final connection of the Central Pacific and Union Pacific railroads marked by the ceremony of the 'Golden Spike' in 1869; third, the discovery of a 780-acre oil field in Los Angeles in 1892. By 1923 the city had expanded production and produced a quarter of the world's oil and there are still hundreds of active wells in the metropolitan area alone.





California's 19th-century mindset persists, and can be summed up in a single phrase: pioneer spirit. It was exuded (ruthlessly in relation to native Americans) by an estimated 300,000 gold miners and other immigrants who came overland, and by ship, from US states, the Sandwich Islands, Latin America, Europe, China and Australia. San Francisco rapidly became a wealthy city with an architectural mantle of Gothic Revival, Romanesque, and tricked-up Queen Anne buildings in a seismically rumpled setting presided over by four legendary railroad barons – Charles Crocker, Leland Stanford, Mark Hopkins and Collis Huntington.

Technological pioneers followed in these golden, carbon-rich, steel-tracked wakes. The Aero Club of California was established in Los Angeles in 1908 and, in 1911, Eugene Ely became the first aviator to land an aircraft aboard a ship,



the *USS Pennsylvania*, in San Francisco Bay. In 1921, even as California's first wholly Modernist home, the Schindler House, was being built in West

Hollywood, the Davis-Douglas Company launched the Cloudster biplane, designed for transcontinental flights; three years later the Douglas World Cruiser made the first round-the-world flights, prefiguring the explosive and exponential rise of the aircraft and aerospace industries around Los Angeles during, and after, the Second World War.

That industry remains one of the state's big three, along with agriculture and the entertainment sector. The techno-haze of Tom Wolfe's *The Right Stuff* that hangs over Santa Monica, Burbank and San Diego has defined the 4,850 square miles



of the greater metropolitan area (and some of its most notable architecture) as much as Hollywood has.

So what does the phrase *Californian architecture* suggest? Let's imagine the bullet-points rattling out on a Teletype tape in one of Citizen Kane's evocative monochrome newspaper offices.

Hunt and Wyman's 1893 Bradbury Building in Los Angeles, with ornate metalwork in the atrium, and the city's 1939 Union Station – the radiating grand West Coast ambition, the latter an Art Deco translation of the Spanish mission-style architecture that had preceded the creation of the state. Wright's 1921 Hollyhock House and his much later Wayfarers Chapel in Palos Verdes – the latter echoed as far away in space and time as Foster + Partners' 2016 Maggie's Centre in Manchester.

The Golden Gate Bridge: equal to the Eiffel Tower as a properly iconic,

Oil fields were another key source of Californian wealth (top), attracting technological pioneers such as the Aero Club of California (top, right). The first Modernist dwelling was the 1921 Schindler House (above), while Californian largesse became crystallised by *Citizen Kane* (right)



Among the familiar roll call of inventive Californian architecture: the Bradbury Building, 1893 (below, left); the Wayfarers Chapel by Frank Lloyd Wright, 1951 (below) and the modular geometry of the Eames House, 1949 (bottom right)

place-potent piece of engineering. The Case Study Houses in the 1950s and '60s – light scintillating off steel and glass, naked interiors facing nakedly arid or subtropical landscapes – Julius Shulman's exquisite night shot of Pierre Koenig's Stahl residence in the Hollywood Hills; the wonderfully skinny H-columns of the Eames House; and, in those postwar years, the tracts of prefabricated pioneer homestead-style dwellings which, from the air, suggested circuit-boards set into the dry pelts of landscape – and not least in the San Fernando Valley, where America's first great suburban sprawl began to take shape in the early 1900s.

California has produced notable architectural one-offs. At La Jolla, Louis Kahn's treasury of shadows at the Salk Institute; William Pereira's Brutalist buildings at the University of California's Irvine campus; and



Richard Meier's search for 'a precise and exquisitely reciprocal relationship between built architecture and natural topography' at the Getty Center in the Santa Monica hills. Kellogg and Vurgin's Desert House, part crystalline rose, part road-kill armadillo; the counterfactually soft 9B graphite sheen of Frank Gehry's titanium Walt Disney Concert Hall. Most of these projects were as much about landscape as architecture, and about outsiders coming in with new ideas.

And, overwhelmingly in the 21st century, the millions of square feet of the Facebook, Google and Apple Xanadus embedded in the Tesla-dotted urban continuum between San Mateo and San Jose, whose vibe was foreseen 25 years ago in languidly sardonic lyrics on Donald Fagen's *Nightfly* album: 'A just machine to make



big decisions;
Programmed by fellows with
compassion and vision;
We'll be clean when their
work is done;
We'll be eternally free yes
and eternally young;

What a beautiful world this will be;
What a glorious time to be free'.

In California, those 'compassionate' visionaries – many working in sight of the perpetual frontier of the Pacific coast – have led the way in pioneering hardware and software developments that have produced one billion iPhone users, 40,000 Google searches per second, and approaching two billion Facebook users, those blithely Tourette-ish supplicants to monetised freedom of expression, and what the company has referred to as 'social design'.

Barry Katz, writing in the London Design Museum's new book, *California: Designing Freedom*, speaks of Silicon Valley as an ecosystem of connections powered by 'the frontiersman's freedom to move across





Julius Shulman's famous 1960 night shot of Pierre Koenig's Stahl House, with Los Angeles spread out below (left); the Salk Institute, 1967, by Louis Kahn (right); the Dodge House, 1916, by Irving Gill fuses Iberian whiteness with precise Modernist abstraction (below)



permeable boundaries, to explore uncharted territories, with no fixed destination in mind'. The museum's curator, Justin McGuirk, links Californian existence with Jean Baudrillard's definition of an achieved utopia – a place that 'allowed itself to imagine it could create an ideal world from nothing'.

Facebook's start-up motto in 2004 was 'Move Fast And Break Things', an ethos of fearless invention which had already been demonstrated in architecture such as Greene and Greene's 1908 Gamble House – the so-called 'ultimate bungalow' – and Irving Gill's remarkable, proto-minimalist 1916 Dodge House in West Hollywood. In the 1930s and '40s (and leaving aside California's early Modernist houses), aesthetic-formal frontiers had been breached by vividly outré, neon-edged Popluxe (aka Googie) architecture, such as Wayne McAllister's



faux-futurist Simon's Drive-Ins, and the boomerang-canopied Harvey's Broiler outlets.

In 1960, John Lautner's pedestalled octagonal Chemosphere was the apotheosis of space-age domestic Modernism and, 18 years later, the weirdly discombobulated Gehry Residence in Santa Monica was an instantly legendary lift-off moment for Deconstructivist design.

Simultaneously, the countercultural ideas and output of artists, writers, and environmentalists became key influences on Californian architecture. Ed Ruscha's laconic photographs in *Twentysix Gasoline Stations*, for example, were produced five years before the publication of *Learning From Las Vegas*. 'I'm interested in glorifying something that we in the world would say doesn't deserve being

glorified', said Ruscha. 'Something that's forgotten, focused on as though it were some sort of sacred object.'

Equally sacred in Californian architecture

are compelling fusions of Modernism and environmentalism – contradictory, tense, potentially fertile. Charles Moore's blocky cascade of cliff-top condominiums at Sea Ranch, 100 miles north of San Francisco, was brilliantly novel in 1966. The noted architectural critic Paul Goldberger said it was, 'the ancestor of virtually every California beach house and Vermont ski house with unpainted wood siding, a boxy form and a slanted shed roof – one of the few buildings of our time that has become part of the vernacular'.

Moore's architectural elaborations were partly a reaction to what he described as 'the featureless private floating world of Southern California, whose only edge is the ocean and whose center is otherwise

Planting a tree during the construction of William Pereira's Irvine campus, a puissant, 1966 Brutalist masterpiece for the University of California (above); the preposterous titanium-clad scrolls and curlicues of Frank Gehry's Walt Disney Concert Hall, 2003 (right) are home to the LA Philharmonic





'Part crystalline rose, part road-kill armadillo', Kellogg and Vurgin's Desert House, 1993 (left) near Palm Springs, is part of California's tradition of formally exuberant dwellings. John Lautner's Chemosphere, 1960 (below) was an early progenitor of the Bond villain lair vibe

undiscoverable'. Thus, while San Francisco has tended to generate generically Modernist architects, Los Angeles embraced the gigabaroque or the wilfully strange. Think of Eric Owen Moss's Samitaur Tower, effectively fire-escape stairs wrapped with pupa-like film screens; and Simon Rodia's Watts Tower, a hectic, rebar-fugue which, between 1921 and 1954, became Los Angeles' Sagrada Família – and a formal precursor to today's algorithm-driven design.

However, the general difference in the SF/LA architectural cultures was always underpinned by a shared influence – Californian environmentalism, ignited by the foundation of the landscape-preserving Sierra Club in 1892, and still crucial in a state where 40 per cent of the public budget is spent on ensuring a steady water supply.

Environmental complexities infused the thoughts of mid-century

architects including Richard Neutra, and almost simultaneously reached their most constructively anarchic expression in the rough-and-very-ready pages of the *Whole Earth Catalog*, produced in the 1960s and '70s by the polymathic hippie, Stewart Brand.

Neutra's tacit acknowledgement of these Californian tensions remains entirely valid in the 21st century. For example: 'However scientific systematics and information may increase and multiply in scope, there still remains an immense field beyond their fluid boundaries, with chains of essential events and with vital parts of our civilisation

playing just *in the field beyond*.' And were there, he wondered, 'reliable values which are at least sharply silhouetted against the horizon of the future?'



Can we define such values beyond those which are commercially advertised? Can we make those values more soundly founded or defensible? How is the

knowledge of these values to be obtained with a degree of assurance?

Assurance was not always the grail. By the 1960s, the Bay Area had become a countercultural Petri dish: the Beat poets, Zen outlooks encouraged by books such as *The Joyous Cosmology* by the British-born Californian, Alan Watts, and the drift into the Summer of Love. The Ant Farm architectural collective at Berkeley produced inflatable event spaces, and Brand's *Whole Earth Catalog* only reported on things if they were useful tools, relevant to independent education, were either high quality or low cost, not already common knowledge, and available by mail. The catalogue had seven sections: understanding whole systems, shelter

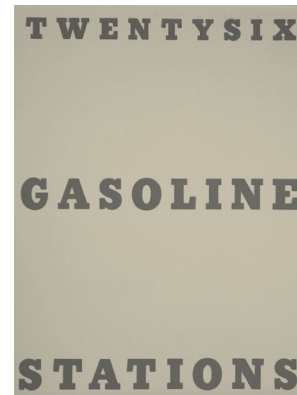


California encouraged experimentation of all kinds, as demonstrated by the Ant Farm collective, which devised a series of flexible, inflatable structures for event spaces in the late '60s (above), and the sleek, faux-futurism of Simon's Drive-Ins, by Wayne McAllister (right)





Frank Gehry's bricolaged own house in Santa Monica, 1978 (left, top); Ed Ruscha's laconic cover of *Twentysix Gasoline Stations* (below); the cliff-top condos of Charles Moore's 1965 *Sea Ranch* (left, bottom) and the fire-escape-meets-pupa of Eric Owen Moss's 2010 *Samitaur Tower* (bottom)



and land use, industry and craft, communication, community, learning, and nomadics.

The vibe was about self-help and decommodified, self-absorbed creative communities, and it still is. Burning Man is a striking example – self-expressive communitarian gatherings of around 70,000 people in the Black Rock Desert in Nevada, an instant city that leaves no traces of its presence – which originated on San Francisco's Baker Beach in 1986. In the 21st century, typically Californian alt-trends include the steady rise in smaller-scale, craft-intense businesses: 'Move Slow And Make Things'.

Brand remains a guru of the here and now. 'Civilization is revving itself into a pathologically short attention span', he says in his 1999 book, *The Clock of the Long Now: Time and Responsibility*. 'The trend might be coming

from the acceleration of technology, the short-horizon perspective of market-driven economics, the next-election perspective of democracies, or the distractions of personal multitasking.

All are on the increase. Some sort of balancing corrective to the short-sightedness is needed – some mechanism or myth that encourages the long view and the taking of long-term responsibility, where the long term is measured at least in centuries.'

Mechanism, myth, centuries; tropes, surely, of Neutra's 'in the field beyond'; and, for that matter, Form4's location 'of an equipoise of variables'. In their case, we see the quest for this condition in projects that are diverse in architectural manner and scale – and these are explained in

case studies and essays elsewhere in this monograph.

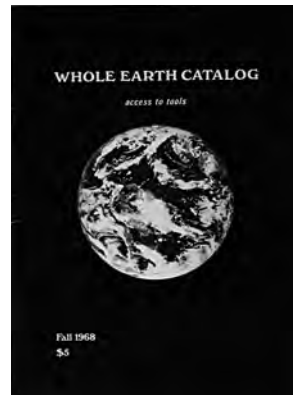
An introductory sample might include schemes such as the Urban Frames mixed-use scheme in Palo Alto, whose forms and

transparency are a direct evolution of California mid-century Modernist architecture, but not ruthlessly pared down. Mondrian's Window is a remodelling of a typically skinny terraced house in San Francisco (built and added to between 1907 and '38), whose massive, punched-out windows have equally oversized frames, dichroic glazing; and there are vivid internal colorations: CalMod, post-Corb, Mondrian, Rietveld – artful, sophisticated and whimsical.

Form4 are epicurean in other ways. The practice is capable of highly expressive computer-resolved architecture that is dramatically curved or radiused in plan or elevation, and this is very obvious in the design proposal for Sanguine Lily, the



Cover of the *Whole Earth Catalog* (below) produced by the polymathic hippy Stewart Brand as a primer for anarchic expression and environmentalism. The Mondrian House (right) by Form4, an adroit remodelling of a terraced house in San Francisco that synthesises Corb, Mondrian and Rietveld



Glasnevin 1916 Chapel in Dublin, with its inflected petal-like roofline above glazed arcs. In China, the design for the Luminous Moon Gate Cultural Center in Taichung is a vast barrel-and-curve tableau; and in Mumbai, the plan form of buildings at EON IT Park alludes to lotus blossoms, India's national flower.

We also see, in a highly concentrated way, the practice's fusions of materials technology, environmentalism and lyrical grace in two small-scale projects. The net-zero carbon Sea Song houses are biomorphic forms designed to be set very lightly into raw, rather than landscaped, ground, and the asymmetry of the curving manta ray roofs in relation to the radiuses of the glazed facades and the splayed positioning of the houses is both remarkably adroit and curiously sensuous.

So, too, is the formal and technical refinement of Form4's Glass Butterfly bus shelters, designed for a Danish competition.

On the one hand, the translucent glass structure form is utterly precise in form, detail and technique, yet also seems like the venustas-rich figment of a Californian imagination.

These small projects highlight something else that emphasises Form4's individualism, and distances the practice from Modernist obsessions with the primacy of reductively ordered technical, material and spatial qualities that they see as having delivered dystopian conditions around the world.

This 'something else' is the way architecture can be germinated by emotional empathy so that its experiential, and perhaps ethical, commodity can be expressed more wholeheartedly. In design contexts, the emotional ingredient is another Californian edge-condition.

'To bring architecture and emotion together is an intentional provocation with intermittent precedents and unstable footing in the Age of the Digital', writes



John Marx. 'And that makes this pair even more desirable. After all, architecture reshapes evidence on a perpetual basis. Architecture is a practice of non-conformity: you design what is yet to be there. Your response to what is generated is emotional, first and foremost, with the rational a distant second.'

In 2002, the American historian, HW Brands, spoke of the 'golden dream' that became 'a prominent part of the American psyche only after [gold was found at] Sutter's Mill'. The remark prompts a predictable play on words that nevertheless seems to be true: Form4 are panning for phenomenological gold that might express time, space and particularly feelings of existence, in new architectural ways.



Watts Towers (left) a rebar-fugue by Simon Rodia, which became a kind of LA version of the Sagrada Familia. Form4's butterfly bus shelters (above, right) designed for a Danish competition, and the practice's Hanover Page Mill (right) a net-zero electricity building

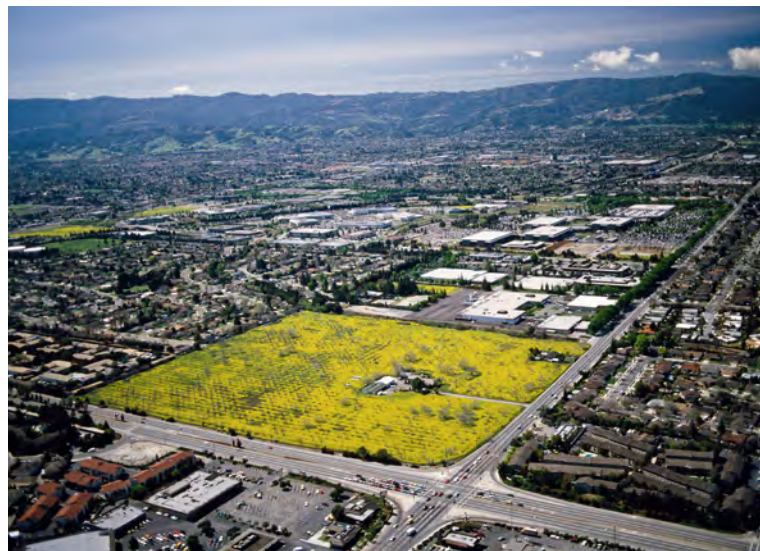




This page:
Silicon Valley's
generic office types
blur and coalesce
into a featureless
urban tableau
Opposite, top: the last
orchard in Santa Clara
Valley, about to be
extinguished by the
new tech landscape
Below: Santa Clara's
original incarnation

Rethinking Silicon Valley

Despite its synthetic heart, Silicon Valley is still a real place, argues *Sam Lubell*



Silicon Valley architecture has always placed efficiency and technology above human comfort, culture and inspiration. Practicality and self-interest rule here, from the time when the Santa Clara Valley first morphed from a locale known for rolling orchards, vineyards and canneries into an electron accelerator, semi-conductor and vacuum tube-saturated tech nirvana brimming with eccentric, well-educated characters in search of gold, opportunity and an escape from the rigid dictates of the East Coast.

It was all about R+D, buzzing inside tilt-up concrete boxes, generic stucco campuses and glass and steel office parks. Companies like Intel, Cisco, IBM, Xerox and, of course, Apple, built fortress-like grounds, walling themselves off from the outside world; and the planning afterthought that was Silicon Valley.

Anything more was considered superfluous, even arrogant. Tempting fate. Profit would without question be funnelled back into technology, not the locale where it was born. Cultural vibrance radiated from microchips, not sensitive architecture or planning. This was the idea of the perpetual start-up, and for years there was a belief that a so-called vanity campus would yield disaster.



From the beginning, the goal of Silicon Valley executives was, and still is, to keep employees at work at their cafeterias and coffee shops, on their treadmills, in their gardens; not distracted in town, wasting potential productivity on the chaotic serendipity of the messy city. Social control would ultimately lead to a new level of output previously unseen in a dispersed corporate world.

'The tech companies of Silicon Valley want spatial variety, "walkability", chance encounters, creativity, but they need it (or think they need it) in a controlled, secure environment,' writes Alexandra Lange in *The Dot-Com City*. Hence potential civic energy has remained bottled up inside corporate gates, rarely making itself seen or heard in the spaces in between.

Over time these companies grew to dominate the local economy (not to mention

This page: Earlier corporate models, such as SOM's Crown Zellerbach building, created a dialogue with their surroundings
Opposite, top: the original Apple campus, a corporate fortress
Below: Apple's new iteration is equally inward looking



our national one), but they also hold small communities in the palm of their hand. When Cupertino City Council asked Steve Jobs what public benefit his new headquarters would give to the city, he responded that it would get to keep the company there. Active street life and cultural facilities would never bring in the tax base or cachet of a major tech player. Hence the spaces in between these oases of money, power and activity never developed into much more than small towns, connected by freeways and arterials, but not by a beating urban heart or by a civic soul.

The area's construction industry has long been dominated by myopic developers, who, not surprisingly, held self-interest above the public good. For office parks they partnered with technology companies who, too, prioritised self-interest above the commons. Giving back to the community was another

outmoded relic of the old world. Past models of corporate citizenship held companies to account, with banks, insurance magnates and industrial titans forming the backbone of local civic life, civic projects and civic philanthropy. Their urban buildings opened themselves to the street, giving back public space and creating a dialogue with their surroundings. SOM's Crown Zellerbach building in San Francisco, for instance, lifted itself above a glass lobby, allowing the public to look inside. The surrounding landscaping welcomed locals, adding a rolling, fountain-filled amenity in a city that really needed it at the time. Levi Strauss's corporate headquarters in the city's Embarcadero moulded itself around Lawrence Halprin's Levi's Plaza, a series of paved public plazas and pastoral parks filled with waterfalls and streams. This type of public investment was never the case here;

where culture would spring up instantaneously inside its own chambers, rarely to be shared with the outside world.

Despite a few exceptions this self-interested ethos continues to this day. Perhaps more than ever, Silicon Valley consists of walled-off campuses lacking public access; contributing little to the surrounding neighbourhoods. The general urban fabric lacks urban heterogeneity, vibrancy, public amenities and placemaking. So most employees (and, increasingly, technology companies, such as Twitter, Salesforce and Square), prefer to live in successful urban environments like San Francisco and Oakland and bus their way via the infamous 'tech buses' (which *Wired* has described as 'a synecdoche for money-flaunting Tech 2.0 oppressors') to the alienating Valley and back. Vibrant, old-world metropolises like New York, London



and Tokyo had once contained their economic centres – the banks, the office buildings, the stock exchanges. But the Bay Area’s biggest cities – San Francisco, Oakland, San Jose, still take second place to the faceless suburbs containing the real stars like Facebook, Apple and Google.

As elite tech firms’ market caps have skyrocketed past every market sector, star architects like Frank Gehry, Bjarke Ingels, Norman Foster and Thomas Heatherwick have been engaged by the likes of Google, Facebook and Apple, to create signature objects that lure employees, increase productivity and collaboration, and cater to corporate vanity. But again their focus is inward. Foster has created Apple’s circular spaceship, which inside is filled with trees and activity, but outside the (in theory transparent to the world) glass walls is a secured perimeter. The public spaces here

are in no ways public. Gehry produced a lovely green roof and well-designed offices, but his work stopped right at the doorway of the office. BIG’s plan for a tent-like building, shielding the headquarters from prying eyes, at least seems to be planned for Mountain View streets, not private drives. But they’re still tucked away from the heart of that city,



if such a thing exists. The real urban realm outside (outside idyllic residential neighbourhoods) still consists of clogged avenues full of car-orientated signage and a who’s who of outdated urban types, from strip malls to shopping malls.

So Silicon Valley, following a herd mentality, knows it wants better architects. But it wants them all to itself. The results, while impressive architecturally, lack an emotional connection to both the time and place they’re in. Firms do not see these citadels (still surrounded by moats of parking, like their predecessors) as contributions to their communities. The firm’s goal, as usual, is to attract and retain the best. Their algorithms demand stars, but their urban results, as critic Allison Arieff points out, seem to be about half a century behind. ‘The built environment of the Valley does not reflect the innovation that’s driving



the region's stratospheric growth; it looks instead like the 1950s,' she writes, of sprawling campuses agnostic to their surroundings. Another deleterious by-product of this placeless planning, she adds, is one more urban woe: traffic. 'Building campuses on isolated suburban tracts guarantees long commutes, and this is one of the worst in the country.'

So while today's glamorous tech entities have brought a welcome emphasis on design with a capital D to the area, they haven't transformed what remains a placeless place. Collaboration here is internal, not with the community; offices are open – and often they're arranged with their own internal streets – but that's as far as their urbanism reaches. Their elaborate contortions and urban simulacra haven't reached beyond their corporate boundaries; and they're not ready to rethink the larger social fabric.

Urban change, though, is slowly seeping into this anti-urban culture. Albeit via baby steps. Santa Clara is exploring mixed-use development around its new stadium. San Jose's Santana Row, while hardly authentic, has developed into a true centre of human activity. Companies such as Adobe are going vertical in San Jose's downtown core.



And downtown Palo Alto, the most walkable and vibrant of Silicon Valley's places, now demands higher rents than San Francisco.

And one of the pre-eminent design revolutionaries working in the area, working to holistically transform this utilitarian locale to a meaningful and culturally rich one, is John Marx, design leader of Form4 Architecture. Marx sees as clearly as anyone the value that spirit, emotional meaning and dynamic energy can bring to Silicon Valley architecture, landscape and urban design. His is a design philosophy based in lyricism, love, observation and intuition, looking beyond the simple notions of pro forma infrastructure and place-agnostic, tech-nerd design. The resulting design lifts the spirit and focuses foremost on human need.

Take Oasis, a technology centre in Santa Clara that ushers a bold and sensual urban sensibility into a decidedly bland suburban

This page: Form4's Folded Wings offers a humane, modern alternative to the hermetic Silicon Valley campus
Opposite, top: another exemplar, Campus X subtly reframes the traditional tech park
Below: the bold, urban sensibility of the Innovation Curve



context. The 13-storey building – wrapped in a skin of metal panels and fronted by a crystal clear facade – hovers first over a berm of pushed and pulled earth and then over a clear podium, making itself a symbol for transparency and lightness among a sea of glumly solid urban forms. Retail activates the ground level, and climbing into increasing ethereality, the building's peak is its ninth floor Big Sky Garden, a three-storey urban get-away containing an open air café and urban retreat. On the ground, the building merges with its surrounding landscape, creating an elite level public space to an area that sorely needs it.

Nearby Marx has designed the Innovation Curve, celebrating the sparks of invention that emanate from Palo Alto through form and organisation. Undulating ribbons wrap over and through glass bars with continuous fins and deep overhangs providing shade for

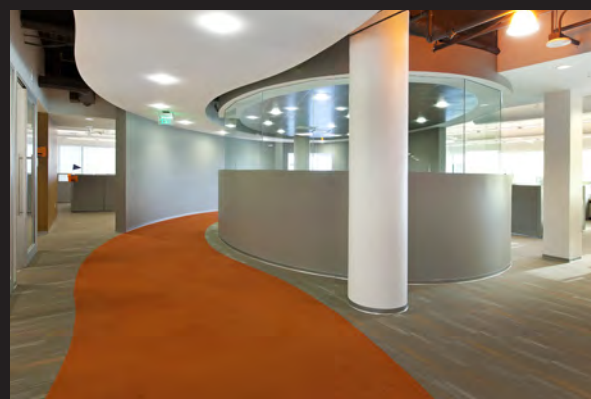
an otherwise transparent, and highly kinetic creation. The building echoes not just technological thought, but the shattering movement and pulsing electricity that infuses a place that, on the outside, has rarely reflected this.

A worthy commentary on this hidden condition is Campus X, which starts with the traditional glass tech office park, and carves it away, creating connections to the street and the place, not turning inward as per the norm. Rising from the ashes of a former Yahoo campus, the complex consists of four V-shaped 'evocative gestures', as Marx has called them, captivating employees and locals, and restoring a sense of technological wonder to the area's tectonic vocabulary. Further down Highway 101, he's performed similar magic within the context of soaring canopies and muscularly cantilevered planes, with Folded Wings.

Yes, this is a Silicon Valley campus, dotted with buildings around a grassy plane. But it's one based in humanity and simplicity, merging within a vernacular of inspiration and modern uplift.

The future Silicon Valley will not hide behind the facade of placeless sprawl; it will reveal and revel in the spirit and charged currents of a place that is literally transforming our world. Marx understands this better than anyone; harnessing the place's pioneer spirit, but infusing it with poetry and local sensitivity, wrangling its natural energy and giving it clarified emotional meaning.

Silicon Valley is a place, not a workplace. There is the potential to rethink suburbia in a more humane spirit. But to do this requires thinking beyond the basic building blocks and beyond themselves to create something much more important.



Form4's interiors for 181 Fremont (top left), Netflix (top right and bottom left) and Stoneridge Workday (bottom right) cultivate a humanising sense of place and agility

The agility of the Silicon Valley workplace could have an equally radical impact on the external realm, says *Paul Ferro*



From start-up companies to tech giants' headquarters, Silicon Valley can claim to have reshaped the workplace environment. At its heart, Silicon Valley thrives on collaboration. This drives a high rate of change and creative thinking, from grand intuitive leaps to the writing of basic code that serves as the foundation of progress. Teams work closely together, inspired by each other's achievements.

The collaborative approach to working was first pioneered by companies such as Hewlett-Packard as early as the 1950s with their 'HP Way' concept. Two decades later, Xerox set out to create 'the office of the future' and founded PARC, a research centre that was home to half the world's top 100 computer scientists during the mid '70s. The ambition was to create office space that worked as a platform for creativity. The first phase was to break away from the more traditional East Coast office environment with a new, forward-looking working culture celebrating an egalitarian and informal approach. This has now become ingrained in the ethos of Silicon Valley's non-hierarchical, and consciously less corporate way of doing business.

It drove the popularity of open-plan workspaces that thrive on bringing employees together, facilitating casual exchanges to spark new ideas more freely. Games and even play were introduced to the West Coast workplace model to encourage uninhibited thinking and make people feel more at home at work. Latterly, the most important influence has been the design of hospitality spaces, with plush furniture and finishes resembling upmarket hotels, clubs and restaurants.

Many new Silicon Valley workplaces now have cafés as their social centres. Facebook has recently incorporated retail facilities, further transforming the traditional idea of an office. Nonetheless, it is food, in particular, that is seen to be at the heart of making a good work environment. Firms such as Google now include a separate Food Team department, while also hiring full-time chefs and staff to support their larger cafeterias. With this commitment, there is little distinction between workplace cafeterias and private restaurants. Break rooms, micro-kitchens and coffee bars

staffed with baristas provide free food and drink, but more importantly, they offer an alternative, more appealing place to use a laptop and interact with coworkers.

This notion of an imaginative and collaborative workspace is what makes Silicon Valley tick. The old idea of the fixed desk is replaced by agile working in networked cafés, restaurants and other meeting spaces. These range from the traditional conference room to the huddle spaces for just two or three people, as well as impromptu meeting areas in open-plan offices, where white boards and pin-up areas encourage teams to coalesce.

Teams working on specific projects move and relocate within the office to be together. This is called 'hotelling' and reflects the need for a flexible workspace. Open-plan office floor accommodation tends to be organised around 'benching', rows of desks with seating resembling long dining tables. Whatever the permutation, it has to be wired to work seamlessly with meeting areas and other spaces. No matter how ad hoc or informal any particular workstation may appear, it must be technically integrated. As well as facilitating group collaboration, many interiors are also planned with contemplative nooks and corners, even gardens, for reflection and recharging.

Perhaps the best-known features of Silicon Valley offices are to do with the idea of play at work emphasised by primary colour schemes. However, this is now maturing into a palette of deeper, darker hues, as well as design solutions that respond to context. Energy conservation and biophilia are apparent in many schemes. And companies are opting for more refined furniture, lighting and AV solutions.

By developing the office model along these lines, California has created an exportable, convivial workspace. The next challenge is to see whether the Silicon Valley formula could be transplanted from a predominantly horizontal landscape to a vertical one in more densely populated urban centres. Another more intriguing challenge is to synthesise the ideas that have effectively redefined workplace interiors into the external realm. By thinking 'inside out', there is the potential to achieve something truly remarkable.

Pacific plurality

Form4's architecture reboots a sense of culture and community, concludes *Jeremy Melvin*



California is not unique in being shaped by the interaction of geology and culture, but the precise nature of that interaction is uniquely piquant. You only have to watch any of those B movies that portray Route 66 as a kind of *Bildungsweg* leading their protagonists through the ups and downs of the American dream, to realise that this is the ultimate *Abendland*, where Western civilisation may not meet its final decline but it certainly encounters the last sunset of the day and the closing frames of numerous films.

Treated metaphorically, that sunset has proved remarkably fecund. Rather than continuing onwards, all those wagons, Harley-Davidson Knuckleheads and Chevrolet Corvette Stingrays – whether fictional or real – have to stop and ponder their surroundings. Keats imagined ‘stout Cortez’ doing something similar, gobsmacked on a peak in Darien by his first sight of the Pacific.¹

When Form4's founder John Marx arrived in California in 1981, his first reaction may have been, like Keats' Cortez, to be silent,

but his subsequent actions were and continue to be far more positive than his conquistador predecessor: he and his colleagues try to make architecture out of the conditions they see and find. They admire the topography, climate and people and the capacity for innovation this combination has, but they try to align their architecture with emotion as much as the hard facts, verifiable needs and provable financial value.

What led Marx to this realisation was his recognition that the ambitions and illusions carried along Route 66 and its parallels also have to stop, get out and take a look around. In doing so they come into contact with counterparts with whom they would never have interacted back east, still less in Europe. And that arguably makes them a little more receptive to ideas that don't derive from Western traditions, whether already there like Native American culture, making their way up from Mexico, or reaching across the ocean from Hawaii, Japan and China.

This, in very simple terms, is why Greene and Greene devised the Bay Style, while

Frank Lloyd Wright came up with his quasi-Mesoamerican concrete blocks, and the Case Study Houses reinvented European Modernism for the land of the crinkle-cut chip. In broader cultural terms it is where Thomas Mann, Franz Werfel, Schoenberg and Stravinsky; Bruno Walter, Horowitz, Heifetz and Rubenstein took refuge from the Nazi cataclysm that almost destroyed Western civilisation,² strung out along the instantly recognisable linear form of Los Angeles' Wilshire Boulevard.

Their reactions to the land of almost perpetual sunshine differed. It is hard to picture Thomas Mann, spatted and stiff-collared, dipping a crinkle-cut chip into guacamole.³ Schoenberg, on the other hand, embraced prevailing sartorial habits and his son Ronald embraced the legal system, becoming a municipal judge and later to his dismay letting OJ Simpson off lightly from a round of domestic violence. Their experience showed that Western civilisation could survive the odd sunset or two, indeed that it might benefit from being forced to address both its own contingency and the existence of other traditions.

To John Marx this pluralist context was a godsend. It opened up all sorts of possibilities, but above all showed him that the narrowly prescriptive conditions to which late Modernist architecture had descended were not god-given. Echoing the chapter in Reyner Banham's paean to Los Angeles entitled 'The Style that Nearly ...', pioneering imaginative forces such as the great Postmodernist Charles Moore at Sea Ranch and in his magnificent campus at Santa Cruz, and Frank Gehry in exploring the architectural possibilities of chain link fencing, he demonstrated that architecture could be contemporary, congenial and compelling. It just proved hard to replicate in the land of Hood, Harrison & Abramovitz and of Victor Gruen's increasingly ubiquitous shopping centres, set in their tarmac seas. Even the most artfully used chain link fencing could not overcome the effect on public spaces of plant room exhausts or the compromising impact of vehicular crossover points on every attempt to make a decent pavement. California was not and may never be paradise, but architecture was making it harder to get there.

So Marx and his colleagues realised they would have to look deeper and wider than architectural conditions, since the architectural ideas they had received from education and early professional experience looked ever more threadbare. This is why the terms 'vibrancy' and 'authenticity' mean so much to them. In different ways both speak of emotional rather than intellectual or pragmatic reactions, and reach for levels of experience that Modernism, except in its most rarefied examples, rarely recognised. They stand outside architecture, though Form4 want to bring them in to take a look around.

In one chapter of this monograph, Marx gives some depth to his interpretation of vibrancy. Among other features it is about immediacy of emotion, and the capacity to express it. Expression leads to social interaction and so fosters a framework within which people can collaborate on the basis of overlapping, extending and modifying their emotional state in relation to their neighbours. This is a dynamic of difference yet – and this is why it is vibrant – held together in collective endeavour, rather as atoms might vibrate but still be part of a solid. Form4's aim is to make a trope of that metaphorical frame in physical form.

Form4's concept of 'authenticity' springs from their notion of vibrancy. It differs from some of the more serious architectural commentators by rooting authenticity in human activity rather than tectonics and all the baggage that goes with that view.⁴ This is best encapsulated in Marx's account of the Burning Man festival. There, he

writes, 'a city of 70,000 people organically forms ... [creating] ... a deep caring, all of the things we strive for, at a level of intensity that is frankly "off the charts"'. He adds that it 'serves to teach us about "Community and Kindness, through Participatory Art"', because 'people build their own vibrancy in the most deeply authentic way possible', through their own emotions, interactions and ambitions.

Burning Man, Marx admits, is temporary and so 'not an "architecturally" rich environment in the normative formal sense', making it less prone to and capable of indulging tectonic fantasy. Nonetheless it shows one way in which it is possible to step outside all those other 'normative formal' structures that regulate modern life, and to search for a set of social relations and a physical framework that shows people what they can be and how they might live. All of us have, as Marx writes, an enticing propensity to dream.

How does this translate into architecture? For starters, Form4 look for a meaningful connection between the site and the programme. That explains their interest in placemaking, an elusive architectural quality at the best of times and nearly always absent in Modernism. The name of a live/work development in Palo Alto, Urban Frames, is in one sense quite literal, but it is also an attempt to translate the compact, walkable and dynamic character of central Palo Alto, into the suburbs. So in another sense it expands the frame that nurtured many of the world's most successful tech companies.

More alluring and allusive project names are Sea Song, Crashing Waves and Luminous Moon Gate. Crashing Waves is a concert hall in Korea where the metaphor of junction between land and sea evokes the drama of music by the composer Isang Yun, while Luminous Moon Gate, through its beacon-like glow, invites passers-by to engage with the programmes of the art gallery and library it houses. Sea Song takes its cue from its clifftop site, proposing a series of delicate shell-like forms, where the sea and not just the Sirens sing to locals and voyagers.

Each of these strives for the balance of 'cultural vibrancy' and 'emotional meaning' that Marx outlines in an earlier chapter. As he describes them, both of these phenomena are ways of communicating and sharing experiences. They may be communal (cultural), or personal (emotional) but without some degree of commonality a group of people descends into a series of fragments rather than a community. The task of architecture is to create physical and spatial frameworks that foster this communality: to do this effectively Marx advocates a shift in the way architecture is practised.

Architecture can affect emotions in numerous ways, from the simplistic immediate reaction of 'I [don't] like it', to the sort of complex reactions we develop for buildings we know well, such as where we live, study or work. Those in the latter category will almost always involve a combination of intellectual and rational responses (does the building work?), through nearly infinite myriads of petty and easily forgettable experiences to complex meldings of memory and desire. At the root of these lie complex signs, symbols and archetypes which can provide the basis of some shared communications, but as Ian Ritchie points out in his chapter on poetry and architecture, such images can be double-edged, too specific in themselves and perhaps, for that reason, not fully incorporated into shared structures of communication and meaning.

This frames the task Marx defines not just for Form4, but for architecture more broadly. It is to recognise underlying emotions and desires from their visible but often etiolated signs and to fashion them into something more communal and vibrant than merely fashionable. California with its capacity to shatter dreams without destroying them is fecund territory – the challenge for architectural creation is to make physical environments that stimulate individuals to remake those dreams for themselves in conjunction with others.

















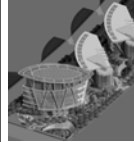












Cortez and his companions only 'Looked at each other with a wild surmise / Silent, upon a peak in Darien' – at least in Keats' formulation – when they caught sight of the Pacific. But they had no reference points or shared experience to move their reactions beyond 'a wild surmise'. By contrast when Marx arrived on the Pacific shore, and this underpins why his reaction is more positive than Cortez's, he saw disparate fragments of lives, cultures and communities, and is exploring how architecture can creatively reboot them.

1. See John Keats, *On First Looking into Chapman's Homer*. While the most obvious reading of this poem is as a hymn of praise to the Western cultural tradition, a deeper reading and the invocation of the Americas infers some form of interaction between different traditions. It is important to note that Keats uses Cortez as a metaphor and offers no views as to the appropriateness of his behaviour vis-à-vis the Aztecs.













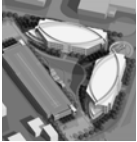







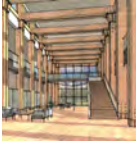


















2. For an engaging account of the effects of the Nazi cataclysm on Western civilisation, see Thomas Mann, *Doktor Faustus*. For a serious account of the émigrés in Los Angeles, see Donald Prater, *Thomas Mann: A Life*, in which appears a schematic map of Los Angeles showing where the refugees took refuge.

3. Paul Davies, a regular contributor to *The Architectural Review* and senior lecturer at London South Bank University, has argued that the postwar lifestyle of Southern California was enabled by the invention of the crinkle-cut chip, which meant that guacamole could be eaten, outside, without napery. The effect on the critical conventions of dining in bourgeois life, and by extension on all other bourgeois conventions, is obvious.

4. I am thinking here of Peter Blundell Jones and Kenneth Frampton.

1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
 <p>Brio Technologies HQ Santa Clara USA</p>	 <p>Serpentine Connection NVIDIA HQ Santa Clara USA</p>  <p>Setin Mixed Use Centre São Paulo Brazil</p>	 <p>Sinew Carmel Valley Club San Diego USA</p>	 <p>Mission College Santa Clara USA</p>  <p>Inlaid Box Great American Lobby Santa Clara USA</p>  <p>Caffè Culture Viol International São Paulo Brazil</p>	 <p>Portal of the Winds Jeju South Korea</p>  <p>Aspect HQ San Jose USA</p>  <p>House of Borrowed Light San Francisco USA</p>	 <p>Falling Lotus Blossoms Pune India</p>  <p>VMware Campus Phase 1 Palo Alto USA</p>  <p>Palm Springs West Beijing China</p>  <p>Mountain Aerie House Modesto USA</p>  <p>Montana Helena USA</p>	 <p>Orange Walk Nagpur India</p>  <p>Ascendas Campus</p>  <p>Sanctuary: Bradbury Tower Mumbai India</p>  <p>School of Philosophy and Theology Berkeley USA</p>	 <p>Venetian Glass, Netflix HQ Los Gatos USA</p>  <p>The Ark Walnut Creek USA</p>  <p>River's Flow Metroplex Mumbai India</p>	 <p>Osprey House Brookings USA</p>  <p>Technology Drive San Jose USA</p>  <p>State Compensation Insurance Fund Redding USA</p>  <p>Lawson Lane Santa Clara USA</p>	 <p>Church of St John the Baptist Aptos USA</p>  <p>Suburban Canyon Santa Clara USA</p>  <p>India Basin MP San Francisco USA</p>

Twenty years of Form4 Architecture

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
									
Crashing Waves Tongyeong South Korea	Lyrical Seashore Kaohsiung Taiwan	Oasis Santa Clara USA	Hanover Page Mill Palo Alto USA	Glass Butterfly Holbaek Denmark	Falling Lotus Blossoms Pune India	Netflix HQ Phase 1 Los Gatos USA	Campus X Santa Clara USA	Folded Wings Palo Alto USA	Innovation Curve Palo Alto USA
									
150 Brokaw San Jose USA	Bay Club Silicon Valley Cupertino USA	3000 Bowers Santa Clara USA	VMware Campus Phases 2 & 3 Palo Alto USA	Sanguine Lily 1916 Centenary Chapel Dublin Ireland	Mondrian's Window San Francisco USA	Oasis Santa Clara USA	Art and Art History Faculty Santa Clara University USA	Resonance San Francisco Bay Area USA	VMware Campus Phase 4 Palo Alto USA
									
	Elks Lodge Palo Alto USA	St Peters Lamore USA		Luminous Moon Gate Taichung Taiwan	Sea Song Big Sur USA	Urban Frames Palo Alto USA	The Hive Development Centre Pleasanton USA	Workday HQ Phase 2 Pleasanton USA	Lake Merritt BART Oakland USA
									
	Millbrae-TMG Millbrae USA	Sound Garden Ojai USA			Workday HQ Phase 1 Pleasanton USA	Law School Santa Clara University USA	Netflix HQ Phase 2 Los Gatos USA	450 Concar San Mateo USA	500 University Palo Alto USA
									
						550 Allerton Redwood City USA	Cascade Millbrae USA		
									
						181 Fremont San Francisco USA	Millbrae BART Millbrae USA		
							<ul style="list-style-type: none"> American Prize Venice Biennale 		<ul style="list-style-type: none"> 140th Design Award Venice Biennale

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