Modernist Building design

The fractured and contested legacy of Frank Lloyd Wright and Le Corbusier

How did their ‘Modernist’ ideas effect Urban Planning in the 30’s and how has that legacy evolved?

Over the years, architects have had a lot to say about better building and city design. Some have been socially progressive and environmentally aware, although that has varied. Some of their early attempts at Modernist buildings and urban design reflected concerns about form, function and location, and even society and nature. Some of it has been seen as ‘Utopian’ and ground-breaking, and, even though there were technical limitations at the time, many of Frank Lloyd and Le Corbusier’s ideas and designs are still relevant to this day. There were, however, also emerging reactionary political blind-spots, commitments and biases, which meant that much of their subsequent legacy has been treated less than favourably for a range of reasons. Looking at Frank Lloyd Wright’s ‘Broadacre City’, and Le Corbusier’s ‘Radiant City’ as examples, this report aims to illuminate some of the strengths and weaknesses, and some of the history and modern day relevance, of these two major architectural giants.

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A comparison of the ideas behind Frank Lloyd Wright’s ‘Broadacre City’, 1932, and Le Corbusier’s ‘Radiant City’, 1933. (based on, originally, an academic article written by me, in 2008)

Three famous quotes stand out in the cannon of Modernist architectural history. Louis Sullivan starts it off with his idea that “form ever follows function”. Frank Lloyd Wright develops this idea and adds his own assertion that “Architecture is the Mother of all Art”. Combine these statements with Le Corbusier’s “a house is a machine for living in” and it begins to come clear how all-encompassing the Modernist projects were, of these brilliant architects. They did not just want to design buildings for their own sake. They wanted to design the nature of their buildings in order to change the experience and perception of everyone that might possibly live in them, or use them.

Both Le Corbusier and Frank Lloyd Wright had a huge influence on Modernists of their own era. Frank Lloyd Wright would influence the ‘De Stijl’ movement in Europe directly, but one of his main legacies was to question the way that buildings of all kinds were placed in a landscape. His proposition was that nature should be studied and used as template to form the basis of modern building principles. As he says in his autobiography “Go to Nature, thou builder of houses, consider her ways... Learn from Nature her simple truths of form, function, and grace of line... Nature’s things seem to belong where they are put and to grow from their site.”

Le Corbusier was also engaged in marrying the built environment with the natural world. However, he had a more mechanistic relationship, seeing trees and open green space as purely health and recreation giving entities. Nevertheless, both men were engaged throughout their life with a larger ‘vision’ for a better world. Both men were fascinated by geometrical patterns and both evolved theories of how human habitations and nature should be interrelated and connected into a woven fabric of harmonious co-existence. Crucial to their various debates were the ideas of proportionality and perspective. Both looked to older cultures, in terms of their shape and form, to inform their own ideas, and perhaps it is through this knowledge that they also came to consider the design of cities, as seen from above, as being a way to introduce ‘proportionality’ and balance into the structure of the man-made world. As Le Corbusier says in ‘The City of Tomorrow’

“We must plant trees... The gigantic phenomenon of the great city of tomorrow will be developed amid pleasant verdure. Unity in detail; a magnificent “tumult in the whole; a common human measure and a proportional “mean’ between the fact “man” and the fact “nature” This is what we need.”
Frank Lloyd Wright

Frank Lloyd Wright started of his early career as an architect by designing Victorian houses, however he was unhappy at the basically hierarchical nature of the Victorian structure and so he set himself the task to explore what was to become ‘Democratic American Architecture’. His publication of the Wasmuth Papers, in Berlin in 1910, was a major influence on European architecture and design. Walter Gropius, Le Corbusier and Mies van de Rohe were all students at the time in the architectural practise of Peter Behrens. The Dutch architect HP Berlage visited Wright in Berlin, and was inspired so much by his ideas that he returned to Holland and spread Wrightian ideas of building to members of the ‘de Stijl’ group of architects and artists.

Wright came back from Europe and started building, hi-spec housing for rich clients, on ‘Modernist’ principles. However, due perhaps, in part, to a rather complicated ‘disruptive’ personal family history, he became interested in designing American system-built homes: “American Ready-Cut prefabricated housing”. Wright uses variations on a cruciform as the main design driver. He was looking for a simplicity that was easily adapted. Although he was driven, financially, to design many bourgeois villas for private clients, his dream was to, eventually, produce a ‘democratic American house’, which he named the ‘Usonian house’, designed to address the needs of ordinary American people.

Wright was inspired by the organic nature of crystal formations, from his early experience with Froebels blocks, given to him, as a child, by his mother. Wright intuited that the growth of crystals and organisms was “an essentially similar process” and from this he devised his personal design vocabulary, of “...nature, organic, crystallization, integration, efflorescence, and structure”. So crystalline and geometric patterns were an integral part of the inspiration behind Wright’s architecture.

Broadacre City

A good description of Wright’s ideas behind Broadacre City, and the importance of his idea of integrating nature and cityscape comes in this quote from Anna Lloyd Wright’s published diary.

“Wright designs a city grid, “first broached by Wright in his Princeton Kahn lectures of 1930 and then published as a socio-economic, exurban polemic in ‘The Disappearing City of 1932’... Wright’s egalitarian vision was one acre reserved for every citizen at birth. In addition, the two were formally interrelated since the oversailing horizontal multiple roofs and outriding walls of the Usonian House would have layered the individual house into the new land-settlement pattern of the Broadacre city plan. Wright’s Broadacre City, first exhibited in 1934, may be seen in retrospect as an infinite “oriental rug” as a cross cultural, ecological tapestry writ large, as an oriental paradise garden combined with the Cartesian grid of the occident. This is Wright’s textile tectonic literally inscribed into the earth, evoking that Edenic point where culture and agriculture are inseparable, the natural home for the natural economy, the warp and the woof of a transhistorical time.”

This quote captures the vision, as if seen from above, of the landscape as a vast tapestry, of man and nature intertwined in a mutual dependency. His use, as she sees it, of the “Cartesian grid of the occident” clearly honours the past and also the discipline of geometry as a means of distributing ‘proportionality’ into the landscape.
Wright was also interested in new materials, and along with many Modernists, saw the machine as a means of liberation to the human spirit of creativity. As far back as 1901, in his lecture at Hull House on “The Art and Craft of the machine”, Wright spoke of “multitudes of processes” that were “expectantly awaiting the sympathetic interpretation of the mastermind”, and identified the machine - in architecture, analogous to these mechanical processes - as “a marvellous simplifier; the emancipator of the creative mind, and in time the regenerator of the creative conscience”. He added that Americans “must find new forms, new industrial ideals, or stultify both opportunity and form”.

Wright went on to formulate his own design of a new building block, a cheap mass assembly concrete block that did away with the need for elaborate and expensive formwork that was needed for the fabrication of reinforced concrete. He hoped and set out to demonstrate, with his plans for ‘Usonian Houses’, that new processes could liberate the American society and so enable all citizens achieve his conception of ‘their right’ to a ‘democratic American home’. Frank Lloyd Wright’s principles of architecture were those of a free-flowing, ‘organic’ flexible nature. The Wrightian dictum “out of the ground and into the light” reveals a basic connexion between land, light and design, and a recognition of the ongoing process of evolution in design.

“A building for the first time in the world may be lightly fabricated complete, of mono material - literally woven into a pattern or design as was the oriental rug... we may “weave” an architecture at will - unlimited in quality and quantity except by limitation of imagination”.

He demonstrated a strong attachment to the material nature of the world, but this is put within a spiritual context. Lloyd Wright saw land as architecture. In common with many Modernists he took a Nietzschian view in that he stated that what man builds is the true measure of mankind.

“Earth-dwellers that we are, we are become now sentient to the truth that living on Earth is a materialisation of Spirit instead of trying to make our dwelling here a spiritualisation of matter... To be Gods of earth here is all the significance we have here.”
Wright’s plan for Broadacre city was to use the ‘Usonian house’ as a building block for an integrated city-grid. He used the qualities of the Usonian design, a small communal home designed for family interface. The bedrooms were small, however, the living room was large. The kitchen was at the heart of the house, along with the hearth. The key that unlocked Wright’s understanding the needs of the next generation, with his ‘Usonian Houses’ was Nancy Willey commissioning a house that she could both afford, and would suit her needs especially in terms of entertaining in a servant-less household, and on a limited budget. In her book The Food Axis: Cooking, Eating, and the Architecture of American Houses, Elizabeth Collins Cromley examines how the human requirement for food defines the shape of the American household over time, from colonial times to the present day.

“An example of a food-axis arrangement that partially realizes the modern promise of servant-less housekeeping. The Willey House plan includes a dining/living area that communicates with the kitchen through a glass screened partition wall, fully exposing it for the first time to the formal space of the house.”

This was a ‘democratic’ design, there was no room for servants, the house had to be easy to run. The house had no basement, which was expensive to build, but it was also designed to withstand extremes in climate temperature and therefore suitable for most American climes. Affordable, flexible, adaptable. These are goals that in many ways have rarely been achieved even in our present time. If there was one great weakness in Wright’s designs it was, if anything, that technology had not yet caught up with his ambitions. The large windows in many of his houses were single-glazed and therefore the houses were cold in winter. Although the first examples of double-glazing appeared in the 1930s, in the US, Wright does not seem to have been much interested in it, as a new energy-saving technology, and to be fair, the early examples were not sufficiently, technologically, well-enough developed to withstand the US normative seasonal extremes of temperatures. Wright was not the sort of architect that bowed to client’s demands. The wife of one of the clients, who commissioned a house designed by Wright, apparently complained to Wright that, although in the summer the house was lovely to live in, in winter it was freezing-cold. His reply was “Madam, just put on your fur coat”.

Wright was determined that his houses would fulfil a ‘utilitarian’ brief, that elements could be prefabricated offsite, and hence would be cheap to build. His other planning idea was to invert the house so that the back of the house would face the public roadway. This allowed the garden to become a totally private space. It also meant that more garden was freed up as the house no longer had to be set back from the road to attain privacy.
This perhaps could account for the fact that many people judged his houses as being built as if they were mini-fortresses, as they do not have a welcoming openness, but this is merely that the openness is extended into the realm of the users and not for the benefit of the public. The maximisation of the size of the garden was a post ‘Depression’ concern, in lower-class American society. Much as the post-World War II, 1960’s British ‘Parker Morris’ ‘council housing’ standards were a realisation that a basic standard of housing criteria had a role to play in terms of a minimum standard for ordinary working-class people, including a minimum size of garden allocated, for possible self-sufficiency in vegetable growing.

One of the first Usonian houses to be built was the ‘Jacobs’ house in Madison, Wisconsin. This idea for an innovative style of house was conceived in 1936, and built for a modest $5,500. Part of the success of the Usonian design is its quality of over-lapping uses. As John Sergeant says in his book ‘Frank Lloyd Wright’s Usonian Houses: the case for Organic Architecture’, the boundaries are not static, parts of the kitchen are also lounge, kitchen or even lobby. This is what Wright refers to as “breaking the box”.

The concept of breaking down barriers of defined usage is a fundamental part of Wright’s vision of a planned urban community. The designs for Broadacre evolved over many years. The beginnings were in Wright’s “Kahn” lectures of 1930. ‘Disappearing City’ was published in 1932. In March 1932 the New York Times magazine published an article called ‘Broadacre City: An Architect’s Vision’, in response to an earlier article written by Le Corbusier, called ‘Green City’ which had advocated the idea of the city as an efficient machine for living in.

In 1935 the Taliesin Fellowship produced a model of how the ‘Broadacre City’ might appear. This went on display at the Rockefeller Centre in New York. Wright produced various articles and books, which interpreted the ideas behind the model. However due to the length of time, twenty years, between the first and the last of these offerings, there was little momentum, or concentrated body of work, for the critics to analyse and assess at the time. This in part explains the lack of emphasis given, in Wright’s legacy, to his Broadacre ideas. However, the scope and scale of his ideas behind Broadacre does very much fit in with Wright’s ideas of an ever-evolving and changing ‘organic’ landscape. Wright shared with Ebenezer Howard, the architect of the English ‘garden city’ movement, a vision of a decentralised, dispersed urban landscape.

As Wright said of Broadacre, it was to be a continuum. Broadacre was to be “the entire country, and predicted on the basis that every woman, man and child in America is entitled to own an acre of ground so long as they live on it or use it, and every man at least owning his own car”. Broadacre depicted a post-scarcity society - one of relative affluence. However, in some important principles, it is a world away from urban/suburban realities of today. In Wright’s designs, no member of American society is excluded from the right to engage in his Broadacre plan for a sustainable community of the future. Wright’s scale and grandeur of design far outstrip anything that has been built so far. Wright’s allocation of urban ‘space’ to ‘nature’ have yet to be realised in urban planning terms. Unlike the ‘garden city’ movements, which concerned themselves mostly with housing, Wright took in the need to plan for industry, warehousing, markets, hotels, sanitation needs, power stations etc. In fact, all the usual infrastructure needed in a medium-sized city, as well as municipal parks and gardens and sports centres. Wright assumed that a car per household was a basic necessity, he was a keen motorist, he also included mono-rail transport, small airports for “aerotors” (small helicopters). He even had a ‘fly-wheel’ powered energy-conscious car.
His support for extensive ‘super-highways’ linking different localities has really been in effect the main ‘real’ legacy of his ‘Broadacre’ plans. In the 1930’s there was little awareness of the environmental costs of energy production and use. Then the cleanest fuels were considered to be oil, gas and electricity. Wright maintained that using high-rise urban housing perpetuated conditions of exploitation - they were just ways to pack more people in and charge higher rents. It could be that he also used his ideas of low-level development in order to distance his own ideas on cityscapes from those of Le Corbusier, but that is speculation. He postulated that subsidising transport was preferable in order for people to “find independence on their own land”. He also expected that the concentrated cityscape would wither away, that government and regulatory institutions would become increasingly localised.

Wright’s belief that “space can be reckoned by time rather than feet and inches” could be considered to be a Modernist idea. Derived from the theories and ideas behind Cubism, such as Henri Bergson’s ‘la duree’, that an object can be perceived and understood through its whole life-time trajectory of existence, Wright was wholly opposed to big business, banking and rentier economic structures. He believed that credit led to over-production and consequently to unemployment, militarism and imperialism. Wright had been introduced to the ideas of Silvio Gesell, a German economist. Wright endorsed his book ‘The Natural Economic Order’ and described it as ‘anti-Marxian socialism’. From Gesell he took the novel idea of printing “free money” arguing that just as perishable goods rotted over time, so should money. If it had a built-in annual decrease in face value, then it could no longer be speculated upon, or hoarded, but had to be circulated within the (localised) economy as efficiently as possible and consequently far more of the general population would benefit from the local economy. A bit like the modern day ‘LETS’ bartering systems that some British towns have set up to keep goods and services of localised value. Wright’s support for the idea of the value of money being reduced over time, was a way of preventing capital from being hoarded, in the hands of a few rich people. Under this system “Democracy is a way of living, not a form”, he said, and so it would not be just a tool for capitalist monetary speculation.
In Broadacre City, Wright had the idea of nature and nurtured materials as integrated and overlapping. He had the concept of multi-purpose environments flowing through them, like a web, and he used necessities of life in order to create the elements that patterned his design. “Certain specific acres... are, in every generation, planted to useful trees” in such a way that they define and enrich the countryside and provide fruit, nuts, building materials, and fuel. The suggestion showed awareness of both economic and spiritual needs.”

The crucial element of ‘Broadacre City’ is that of a loosely defined process, one that features both material and spiritual dimensions, but is not a designed and finished product. The city design would change and evolve with the needs of the population. The designs of its housing were equally an expression of the individual and the needs of the society as it evolved. Wright could perhaps be accused of a certain amount of paternalism, in that he thought that the population could be educated into his way of thinking. And that this educative process would ensure a ‘harmonised unity’ of building technique applied.

Wright did not believe in a ‘back to the land’ movement. He saw that as retrogressive. Rather he saw a “new form of community life... Who is going to say how humanity will eventually be modified by all these spiritual changes and physical advantages, sound and vision coming through solid walls to men, each aware of anything in or of the world he lives in without lifting a finger, making it unnecessary to go anywhere, unless it is a pleasure to go.”

His weakness in design though is perhaps that his solutions to housing needs are very individualist, and perhaps you could say inward-looking as well. Unlike in Le Corbusier’s ‘Radiant City’ plan there is little common space for walking and exercising and a lack of public walkways. The whole plan is designed for ease of car-usage, and no indication in his plan of where all these ‘often’ used cars would be able to park! There was little awareness of energy efficiency, certainly no idea that ‘big oil’, and coal, would become the pervasive threat to the climate that it has since become. And, of course, this is a plan for a suburban landscape community. There is little thought given to the needs of farming, which were expected to take place... elsewhere...

Le Corbusier

In 1922 the director of the ‘urban section’ of the Salon D’Automne invited Corbusier to design some ‘urban furniture’ for the exhibition, citing, as an example, a street fountain. Not one to let even the slightest chance of an opportunity slip by, Corbusier replied, accepting the offer to design a fountain with a “city for three million people” behind it as a backdrop.
Corbusier came up with his plan ‘Contemporary City of Three Million People’, presented through theoretical diagrams, drawings and a 100 square meters diorama. The plan behind the exhibition was presented in Corbusier’s book ‘Urbanism’ printed in 1925. In his revised version for ‘Ville Radieuse’, the ‘Radiant City’, in 1935, the new plan consisted of 24 skyscrapers, to house offices, though the plans changed a great deal, there are illustrations of ‘The Radiant City’ with only 18 skyscrapers, and there is some controversy as to his own statement that families should not live in apartment blocks over 50 metres tall, which came rather later than his original plan stated. In his later plans the tall towers were meant for commercial office space and were surrounded by lower-storey apartments to accommodate the local populace, but it was, most crucially, surrounded with open parkland.

Corbusier’s ideas led him to design his city on a multi-layered basis, including three underground levels for metros, suburban trains and trains for distant destinations. As he made clear in ‘The Radiant City’ he was very much in favour of speeding-up traffic. His plan was for raised one-way carriageways, or duel-carriageways, as we would refer to them now, spaced with junctions every 400 metres. Ground levels were exclusively for pedestrians.

“A city made for speed is a city made for success” he stated. It is clear that the automobile is very much seen as an icon of modernity and freedom. Though problems of congestion are recognised, Corbusier believed that with the right kind of planning its problems could be overcome, as in his insistence that “the automobile destroyed the city, the automobile will save it”. Though it could be said, that in making these comments about the future role of the automobile, he was perhaps setting up a shop-window, hoping that Citroen, the French car company, might come forward to sponsor his architectural ideas. However, they did not bite, and the plans morphed into ‘The Plan Voisin’. Voisin having been an already existing firm that constructed airplanes and automobiles. Voisin also turned his ideas down…

This building is part of a group of modernist buildings, designed by Le Corbusier, and built in Firminy, France between 1964-1969. It is one of his last designs in his Unité d’habitation series of buildings and is part of the archetypical housing units that would have made up his ‘Radiant City’, had his original plan for ‘The Radiant City’ been finally built. Le Corbusier died in 1965, so this building was finished by Le Corbusier’s disciple André Wogenscky. Firminy Vert is a collection of Le Corbusier’s ‘Modernist’ buildings which include a church, a stadium, a cultural centre and this building in the photo above.
Another crucial aspect is his idea that nature should be part of the living experience. All the towers had roof gardens; the old street network had ceased to exist in his cityscape. Le Corbusier wrote that they would be “replaced by “widely spaced” cross-shaped “crystal towers”, “translucent prisms” that “soar higher than any pinnacle on earth”. There was no brick of stone seen only in “glass and proportion”. Lower slab buildings, running along a zigzag pattern, accompanied the tall towers. Green was everywhere, not only between the towers but also in the skyscrapers and in the roof gardens, 200 meters above ground.”

This kind of urban planning had first been attempted by Tony Garnier, a French town planner. His plan for a vast ‘Industrial City’ was developed in 1899-1904, though not finished until 1917. It was revolutionary in its use of reinforced concrete and the fact that factories, railways docks and power stations were all included. Unlike the ‘garden city’ ideas of Ebenezer Howard, which had purely been suburban and only entailed housing needs, Garnier’s vision encompasses design for the whole of societies basic needs. Indeed, his imagined “cubic shapes of the small houses” were revolutionary, and his insistence that “decoration is not banished but remains completely independent of the construction” was an early flowering of “Modernist’ ideas.

Another pioneer of the whole-city infrastructural architecture was the Italian Sant’ Elia. Sadly, his pioneering ‘Futurist city’ ideas were cut short by his premature death in the WW-I. However, his legacy can still be seen in the form of the ‘Urban Planning Laws’ of New York, where the stepped back upper stories of skyscrapers allow for increased light down at street level. As architectural critic Nikolaus Pevsner said, it had become “an internationally accepted principle... It is an urban indeed metropolitan, principle, and in that lies its importance, as the importance of Futurism to architecture lies in its adherents’ passionate commitment to the city.”

Essentially what these plans illustrate is a developing idea that a modern workable city has to be planned for integration of services. Rather than the organic evolving cityscape of yesteryear, where commerce opportunities dictated the social order, the new scale of rapid urbanisation and the impact of evolving technology, such as car-ownership, means that the old ‘laissez faire’ era of urban sprawl became a problem of itself.

**The Radiant City**

In ‘The Radiant City’ Le Corbusier lays out his priorities for city planning “I say: the basic materials of city planning are: sun, sky, trees, steel, cement, in that strict order of importance”. The importance of geometry to Le Corbusier cannot be underestimated. His starting point is that he believed that nature was “wholly mathematical in substance, but our eyes perceive it as a series of chaotic spectacles”. In order for man to “provide himself with a bearable, an acceptable framework, for his existence” he has “projected the laws of nature into a system that is a manifestation of the human spirit itself: geometry”.

To understand this, it is necessary to understand ‘Purism’, as it was developed by Le Corbusier and Ozenfant, from 1918 onwards. Le Corbusier used, in his paintings, a representational exploration of the ‘ambiguous ‘cubist’ space’ combined with ‘assembled objects/fragments which are honed into metaphoric content’. However, ‘Purism’ differed from that of the early surrealists in that, although, in ‘Purism’, the space and imagery were multi-planed, the meanings, whether symbolic or metaphoric, were still evident in the painting.
His use of convex and concave ambiguity suggests that Le Corbusier was using his paintings as representatives of ‘spaces’. The use of light as an emblem of purification is evident and leads on to suggest that Le Corbusier's ‘vision’ was that he perceived the ‘home’ as he thought it should be to man, as a temple of spiritual renewal. So just as Wright saw a spiritual dimension in the ‘work’ of man so Le Corbusier believed that ‘functionality of form’, on its own, was not sufficient to engender a healthy and fulfilled human existence.

He believed that access to fresh air was a fundamental requirement to human health. In ‘The Radiant City’ he riles against the ‘toxic gasses in our streets’ and puts forward his ideas on easy access to ‘leisure’ and ‘fitness’, in ‘natural parkland’, which he saw as a prerequisite for a healthy society. It is clear that he used this as the basis for designing the basic ‘cell’ or ‘unit’ for the family dwelling. It was worked out mathematically and geometrically. Corbusier used the basis of these ideas, as the prototype, for the apartment that he had designed for his ‘City of Three Million People’, as the basis for his entry to the 1925 ‘Exposition des Arts Decoratifs, in Paris. It was called the ‘Pavillion de L'Esprit Nouveau’. The homes that he designs, in pre-‘Radiant City’ times, such as in the ‘Pavillion de l’Esprit Nouveau’ period contain the elements that he thought were necessary for human spiritual and emotional well-being, the “garden, tree, oculus, elements traditionally belonging to a temple”.

![Image of Pavillon de L'Esprit Nouveau](image)

Originally designed for the Paris Art Deco Exhibition in 1925

Firstly, they were surrounded by nature, and had nature within their boundaries. Just as, contemporaneously, Frank Lloyd Wright was breaking down the distinction between inside and outside of a building, Le Corbusier, likewise, was bringing nature into the house. He saw his Cartesian high-rise glass buildings as “immense, radiant prisms” with “geometric facades of glass reflecting the blue glory of the sky”, which would remind mankind of its place within nature, and that it was not something separate from nature.

Contrary to popular belief, his eventual statement on family living ‘ideals’ was not for putting living accommodation in the high-rises; these were designed for business only. Le Corbusier states that all family apartments should be no more than 50 metres high, as high-rise living ‘could never be appropriate to family life’. Given his attachment to literal or metaphorical meaning, Le Corbusier’s approach diverges from some previous strands of Modernism. In Barr’s ‘map’ of Modernism, Purism separates out from the Cubists legacy of Futurism, DaDa and Surrealism, although they all shared a belief in the machine aesthetic. Obviously for Le Corbusier, the purely rational, functional, mechanically-defined world was not sufficient to satisfy mankind’s needs. He needs a spiritual and aesthetically evolved world as well.
‘Purism’ eventually recombines later with De Stijl and Neo-plasticism and the Bauhaus, to create what became known as the ‘International Style’ in the thirties. Le Corbusier made plain his departure from the surrealist cannon with the publication of ‘Vers Une Architecture’ in 1923, in which he put his own version of a picture by Magritte, “This is not a pipe”, on the very last page, with the new title “This is a pipe”.

Le Corbusier also had very strong political views. In common with Wright, Le Corbusier advocated land-reform as a necessary prerequisite to implementing his plans. In ‘The Radiant City’ he calls for the mobilisation of the land for the common good. Just as Wright was opposed to absentee landlords and a ‘rentier’ class sucking resources away from the working family, Le Corbusier saw that, by giving public housing as a right, the populace, he believed would be liberated into a new world of creative endeavour, and collective enterprise. Like Lloyd Wright he believed that “We must have city planning in our cities and “city planning” in our countryside”. Unlike Wright’s rather generous 1 acre per citizen, Corbusier allocated only 14 square metres per adult. However, he did consider that, by having large parkland, roof-terraces, and shopping-plazas on the doorstep, then effectively the average person would have a right of access to a much larger quota of ‘healthy’ urban landscape than the average Parisian slum-dweller of the 1920’s.

Conclusion

The approaches adopted by Wright and Le Corbusier, in the nature of their ‘city’ projects, represent divergent developments within urban design and planning, and more generally within Modernism.

Looking back at the splits in Modernism, splits caused by rival attempts to define what was the role of the aesthetic, spiritual and the functional in society, from a sufficient distance in time, Walter Gropius, in 1935, remarked that, the drive towards a spiritual purpose in Modernist ideas, has essentially failed and become corrupted. In ‘The New Architecture and the Bauhaus’ he says “the movement must be purged from within if its original aims are to be saved from the straight jacket of materialism and false slogans inspired by plagiarism or misconception. Catch-phrases like ‘functionalism’ (die neue Sachlichkeit) and ‘fitness for purpose = beauty’ have had the effect of deflecting appreciation into external channels or making it purely one-sided.”

Given this diagnosis, it is perhaps not surprising that Le Corbusier moved to the political right, in the years before the WW-II. Wright by contrast, being in the USA, was less exposed to these conflicts. Indeed, in the run up to the WW-II, many Bauhaus émigrés arrived and worked there, in a much more open and innovative environment. However, although lauded as a great figure, Wright found it hard to promote his new urban designs in the early 30’s, and had to content himself with mostly single-house projects. Le Corbusier also continued to work prolifically both on single projects, and plans for multi-occupation dwellings such as Unité d’habitation, in Marseille, and eventually even a new city in India, Chandigarh, near Delhi, which was started in 1956, as well as projects in other countries as well.

However, regardless of their subsequent work, they had both created blueprints for what would become powerful visions of how cities might be designed in the future. Both used aerial imagery, in order convey how they felt the multi-layered facets of man’s creations and the natural world should be integrated and balanced in a proportional way.
Comparing the two unrealised projects of ‘Broadacre’ and ‘The Radiant City’ indicates the huge vision and scope of the two architects’ imagination, talent and innovative ideas, and sets the groundwork for much of the debate about town planning that has preoccupied the field of architecture in the 20-Century. Comparing and contrasting the two architects ‘visions’, of their ideal ‘cityscapes’, shows that they shared many similarities in terms of ideas. They both believed that, through architecture, mankind would find a balance and harmony and spiritual significance in their lives. Both recognised that the natural world was important to the health of the populace. Their insistence on the importance of the role of natural elements, such as earth, wind, sun and fresh air, as a fundamental constituent of man’s dwelling place was as much for the mental and spiritual health of the populace, as it was for their physical health.

They both shared a love of the speed and glamour, as well as the usefulness, of the motor car. Perhaps the greatest, some would say worst, part of their legacy to us now, is the dominance of the mighty city ‘highway’ systems that they helped to encourage and design. Of course, there wasn’t the awareness of resources being a finite entity as there is these days. However, the part of the legacy that is most neglected, in our current times, is the radicalness of their economic and political ideas. Land-reform has powerful implications that perhaps would have made it hard to implement these grand designs, challenging the status quo of their own time. It probably would be the same now. Alas, we have, arguably, reached a point where city-dwelling, based on a right for everyone to have equal access to spiritual and physical health and mental well-being, on a sustainable basis, is further away than ever.

Clearly both architects had radical political ideas. Le Corbusier’s reputation has suffered because of his subsequent alignment with ‘right-wing’ orthodoxies, during WW-II, and much later by the appropriation, by subsequent architects and town-planners, of the inner-city tower-block idea, as a means of achieving cheap housing for the poor, which proved, on the whole, to be a massive failure. But these late 60’s and onwards, urban-based high-rises were travesties of Le Corbusier’s original plans, to replace slums with high-quality flats, with open-air balconies, in open-park land, with integrated social-spaces integral to the design.

One problem of urban-living that has been known for a long time, by scientists and urban planners, is that temperatures in cities are higher than in rural areas. Asphalt and concrete surfaces absorb more solar radiation. Combined with reduced tree-coverage an “urban heat island effect” occurs in cityscapes. Temperatures in cities can be up to 5C (9F) warmer than in an equivalent rural area. Corbusier used ‘brise-soleil’ (sun-breakers) in some of his buildings. In his case much thicker walls on the south side of the apartments, in Chandigarh, India, to absorb the midday heat, and keep the apartments behind the thick wall, cooler in the day-time. Perhaps, given the rise in global temperatures in general, across the globe, it is time for them to be included in more temperate climates as well. Wright, with his cantilevered roof designs, used the large roof-overhangs to cut out the glare of the midday sun as well.

All these passive design features could ameliorate this urban ‘overheating’ effect, and alleviate the need, and resultant power-usage, from using air-conditioning. Combined with more integrated solar-panels on roofs, the cityscapes energy footprint can be dramatically reduced. But along with these kinds of initiatives, the bottom line must surely be to ‘plant more trees’ and welcome in a renewably-powered electric transport system. Trees and vegetation help to reduce temperature by releasing water into the atmosphere, which cools down the air. Perhaps not so much in the humid, more tropical cities, but most non-coastal cities are predicted to become much drier in the next century. So, more trees and city-greenery would contribute towards combating the effects of global heating.
Adding greenery has in fact already become a standard feature of many contemporary green city-plans and building designs such as the ‘brise-soleil’ in the form of external sun shades and overhangs also. So, some of Wright and Corbusier’s practical ideas have had a continuing influence. The wider social issues that they raised have, of course, also continued to be debated and some attempts have been made to develop new city designs along lines that they might recognise. Milton Keynes, 60 miles north of London, is possibly the closest city design to what Wright would have imagined. It had its own local design and management body, MKDC, with a brief to produce a grid-based city, designed for easy car-use, and only (initially) allowing low-rise building, and it has many parks and planted trees.

One development, I believe, that will become increasingly common world-wide, will be specialist housing projects for particular groups of people. Kampung Admiralty in Singapore won the top accolade, in 2018, at The World Architecture Festival. Le Corbusier would certainly recognise this scene. Again, the technology has greatly improved in terms of weight-bearing roof designs. Also, space is at a premium on the island, so there are many incentives to innovate. Underground rail, and cable-cars are all part of the mix of public transport. Now Singapore has launched a programme of ‘greening’ its high-rise buildings. In the next few decades it will probably be in the forefront of being one of the closest exemplars to the ‘future city’ that both Le Corbusier and Frank Lloyd Wright might have imagined. But what Wright probably would not have imagined is that it has been created out of a particularly paternalistic and strictly capitalist system, but with a great deal of regulation attached to it. Le Corbusier would be more likely to feel at home here, I think…
During my visit to Singapore with my son Oliver, in 2006, we set off to visit ‘The Museum of Tiger Balm’. We were given some very ‘duff’ advice by the receptionist at the hotel desk. They sent us on a journey across the island, by a local train service, towards the north east coast, to what turned out to be some kind of down-market holiday camp. Still we did get to see the parts of Singapore that tourists hardly ever go to. This was where the ordinary workers of Singapore lived. Row after row of six-storey housing blocks, with flats, all with integral balconies with roofs, to protect the buildings from rain damage. Each balcony had an external bolted-on clothing lines for drying washing, with large woven-plastic washing bags surrounding them, to catch clothing, if it fell off the line, but still porous enough to let the wind blow through. The balconies would be good for healthy fresh air but crucially this was housing for people on low-incomes, who probably had very limited access to ‘Western style’ white goods, such as washing machines and dryers. These blocks were set in small parks, with playgrounds, and plenty of ‘open’ walkways between them. And no cars that I could see, just numerous local train stations along the way. The limit to six stories for these flats was presumably because otherwise lifts would have to have been included, which would require power that would not only add to the cost of the building, but would necessitate higher energy use, and cost, to a very low-wage populace with no ‘welfare’ support.

Pondering this particular set of memories of mine, has led me to think about modern-day public-housing projects in Britain. And, of course, the Grenfell disaster as well. It seems somewhat ironic that probably the main damage done to Le Corbusier’s legacy happened after his death in 1965, in the late 60s and 70’s, by some architects, who worked largely in the public sector, and thought it OK to stack the poor up in high-rise blocks, much higher than 6 floors, with no balconies, and no outside communal spaces for children. Though this is a bit unfair on the architects, because they are not in charge of the budgets, or indeed the regulations, or the planning-permissions, and on what basis they are granted, and the fact that many ‘permissions’ were, and still are, granted for unsuitable sites with very poor provision for families. Yes, they tended to have the walkways, which Le Corbusier would have approved of, in principle, but which, in their British ‘cut-to-the-bone’ reality, turned into ‘hemmed in’ threatening areas, of possible ‘crime’. The trouble was this attempt was to mix basic, poor-quality public space, but without the individual renters’ control of the necessary servicing for their own needs, in their own private spaces. This led to some of the poorest in our society, people without the means of access to well-serviced ‘white goods’, and little alternative means of actually doing without them, of having to live in an ‘unsafe’ environment with very few resources to support them.

Since the Grenfell cladding-scandal, thousands of people are now locked into flats with minimal basic safety conditions, and this now goes across the whole of society. It is no longer just about the poor. There is no easy way out for the disabled for instance, if the lift, or power fails. And not even a balcony to shelter on to avoid smoke-inhalation if a fire breaks out. So, what can be done? We need a basic principled set of regulations and minimal conditions under which people should be housed. Where is the new Parker Morris?... I wonder. Or even the will to find one. The failures are a lack of proper regulation, poor planning decisions. Councils that are increasingly financially-stretched and accept the cheapest quotes for both work and materials. The dismantling of government oversight and the ‘bonfire of regulations’, which means that few in authority actually know what materials their own projects consist of. I think, if they were both still alive to see it today it would be a world where both Le Corbusier, and Frank Lloyd Wright would ‘hang their heads in sorrow’, as to how their dreams, of ‘building a better world’ have evolved, whether it was a democratically envisioned one, or just simply the best one ‘that money could buy’ at the time.