

THE CITY WITHOUT STREETS

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ABSTRACT.

The preservation of green spaces within cities has many supporters, but such spaces are generally seen as distinct from the city itself, as parks or 'green lungs' to which the citizens resort at some distance from their homes. The concept of a wholly green environment throughout the city, such as was promoted by Le Corbusier as the 'Ville Verte' [Green City] and widely by the Modern Movement is, however, one that has few promoters today. It is not understood, mainly because it is associated with social housing projects of the 1950s and 1960s which are seen to have failed, leaving characterless open ground between taller blocks. The age-old concept of 'corridor streets' lined by continuous frontages, has re-asserted itself as the ideal. The reasons it was rejected are discounted or forgotten. Ninety years since the publication of Le Corbusier's seminal article 'The Street' in which he excoriated the historic street and sketched his alternative vision, we have in Britain a well-funded and active pressure group called 'Create Streets', and major new developments in London such as at Kings Cross, where Google is currently building its European HQ, feature tightly-packed blocks reproducing the traditional format of 'streets'.

But the potential to realise a new 'green' concept of the city was fundamental to Le Corbusier's embrace of the Machine Age. The potential to build taller which the Machine Age afforded could, by spacing buildings further apart, allow 'Sun, Space, Greenery' to be introduced into every home and office — rather than to use that same technology to project upwards the format of the traditional city, resulting in 'those nightmares, the downtown streets of New York', which were 'the exact opposite of what the "Voisin" scheme proposes for Paris'. Le Corbusier's 'Voisin Plan' for Paris of 1925 was developed with support from the motorcar manufacturers Voisin, and a principal impulse to reconsider the traditional street with its mixed use by vehicles and pedestrians was a desire to accommodate motor cars safely. So, in a world where we want to restrict their use for environmental and sustainable reasons, is Le Corbusier's vision outdated? Examination of his plans shows that in numerical terms only very limited car use was provided for. His vision was 'green' in all senses and intended to provide an optimal habitat for humans. As such it should continue to inspire us.

THE CITY WITHOUT STREETS

Green space in cities has many supporters, but it is generally seen as distinct from the city proper, as 'parks' or 'green lungs' to which the citizens resort at some distance from their homes. A wholly green environment throughout the city, such as was promoted by Le Corbusier as the 'Ville Verte' [Green City] (Fig. 1 / from *Précisions*¹) and widely by the Modern Movement, has very few or no supporters. Indeed, if there is one attitude of mind on which supporters and detractors of the Modern Movement in architecture generally agree it is that Modern Movement urbanism was a mistake. The ideals of 'Light, Space, Greenery' which Le Corbusier said were the first three elements of town planning (followed by Steel and Concrete²), and the abolition of the 'corridor street' which was to be the principal means to attaining them, are everywhere rejected. For example, the major 27ha development at Kings Cross in central London now nearing completion, which includes buildings by internationally-known architects such as David Chipperfield, Eric Parry, Fumihiko Maki, and the European headquarters building of Google. These are all 'Modern' in architectural terms, but the layout as a whole³ rejects the Modern Movement ideals in spatial or urban terms. It seeks instead to re-create a tight ground-hugging urban texture reminiscent of the nineteenth century — a model also promoted by a lobby group called 'Create Streets' currently influential in the UK. But its urban proposals were fundamental to the

Modern Movement, and a recognition of the benefits they were expected to bring is essential to its understanding. The greenness of the city that Le Corbusier envisaged was his justification for the embrace of the technology of the industrial age which made it possible, and was fundamental to Modern Architecture.

Probably the most vilified exemplar of Modern Movement urbanism is Le Corbusier's Voisin plan for Paris of 1925, an application to that city of his model 'A Contemporary City for Three Million Inhabitants' first exhibited in 1922. In it he proposed the demolition of a strip of central Paris 1.2 km wide from the Seine northwards along the Boulevard de Sébastopol as far as the Gare de L'Est and the implantation of an array of identical 60-storey cruciform fully-glazed free-standing office towers, each with extensive car parking, crossed by an elevated motorway running through the city from east to west parallel to the Champs Elysées 900m to its south. The plan was named after its sponsors, the motorcar manufacturer Voisin whose cars were driven by Le Corbusier. This plan, and the thinking behind it, was published in 1925 in his book *Urbanisme*⁴, based on earlier articles in *L'Esprit Nouveau*, a review in whose Pavilion at the 1925 Paris International Fair it was fully displayed. Today it would be difficult to think of a more damaging scenario, outraging every shade of opinion, but so it was then too — and he was never forgiven for it, an open target for an army of detractors. So how could a sensitive artistic soul like Le Corbusier propose it?



Fig. 1. The Green City by Le Corbusier 1929. © Le Corbusier Foundation.

It is this urban model of Le Corbusier's that I would like to consider, though it was succeeded by his Radiant City and Linear Industrial City models and by his more focused Plan 37 for Paris of 1936, because, as he wrote in 1959, 'The "Plan Voisin" was the expression of a principle. This plan continued to evolve during the following thirty years.'⁵ What was that principle? In Volume 1 of his *Oeuvre Complète*⁶, the Plan Voisin is published alongside his little-quoted but visionary text 'The Street', first published in 1929, where his aesthetic is explicitly set out. The context for the evolution of Le Corbusier's urban project should be borne in mind: in 1922 the last of Hausmann's boulevards — an urban revolution in themselves — was still being built in Paris, the Russian Revolution was a recent event, Tony Garnier's drawings for *The Industrial City* had been published in 1919 and assumed, as did the influential Garden City movement in Britain, that urban land would be in common ownership, and the Futurists had inflamed the urban debate with their excoriation of the old.

In 'The Street' Le Corbusier starts by denigrating the traditional metropolitan street:

plunged in eternal twilight. The sky is a remote hope far, far above it. The street is no more than a trench, a deep cleft, a narrow passage. And although we have been accustomed to it for more than a thousand years, our hearts are always oppressed by [it]. The street is full of people: one must be careful where one goes. For several years now it has been full of rapidly moving vehicles as well: death threatens us at every step... The street consists of a thousand different buildings, but we

have got used to the beauty of ugliness for that has meant making the best of our misfortune... On Sundays when they are empty the streets reveal their full horror. But except during those dismal hours men and women are elbowing their way along them, the shops are ablaze, and every aspect of human life pullulates throughout their length. Those who have eyes in their heads can find plenty to amuse them.... Nothing of all this exalts us with the joy that architecture provokes. There is neither the pride which results from order nor the spirit of initiative which is engendered by wide spaces....

Then he reveals the occasion for his writing:

At the present moment a congress on "The New Paris" is about to assemble.... What sort of street will it decide to give us? Heaven preserve us from the Balzacian mentality of some of its members who would be content to leave our streets as they are because these murky canyons offer them the fascinating spectacle of human physiognomy!

Finally, he moves on to describe his new vision:

I should like to draw a picture of "the street" as it would appear in a truly up-to-date city. So I shall ask my reader to imagine they are walking in this new city... You are under the shade of trees, vast lawns spread all round you. The air is clear and pure; there is hardly any noise. What, you cannot see where the buildings are? Look through the charmingly diapered arabesques of branches out into the sky towards those widely-spaced crystal towers... — flashing in summer sun-

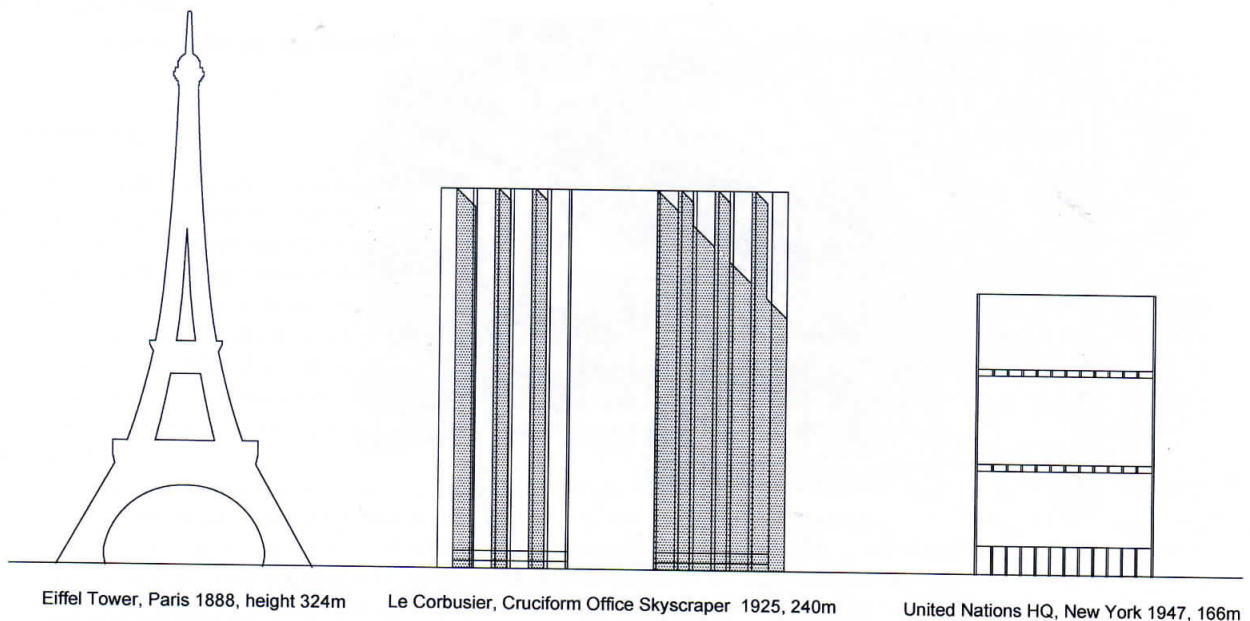


Fig. 2. The Eiffel Tower, The Plan Voisin Cruciform Skyscraper and the UN Secretariat to the same scale. © James Dunnett, 2020.

shine, softly gleaming under grey winter skies, magically glittering at nightfall —.... Beneath each is an underground station... only 5-10% of the surface area of the business centre is built over. That is why you find yourselves walking among spacious parks remote from the busy hum of the autostrada.... Look over there! That stupendous colonnade which disappears into the horizon as a vanishing thread is an elevated one-way autostrada on which cars cross Paris at lightning speed... In the new business centre office work will be performed, not in the persistent dimness of joyless streets, but in the fullness of daylight and an abundance of fresh air.... Its 400,000 clerks will be able to scan a landscape such as that one looks down on from the lofty crests above the Seine near Rouen and behold a serried mass of trees swaying beneath them... When night intervenes the passage of cars along the autostrada traces luminous tracks that are like the tails of meteors flashing across summer heavens...The street as we know it will cease to exist...

The only reason Paris could not be rebuilt in this way at that moment was the regulations:

In the reign of Louis XIV useful legislation was enacted to limit the height of buildings in relation to the effective strength of masonry construction. Today engineers can... build as high as they wish. But the building regulation of Louis XIV which fixed the height of the cornice at twenty metres above the ground still remains in force... Thus almost the whole superficial area of the city — not merely 5-10% but 50-60% of it — has to be built over. As an inevitable result — and this not-

withstanding 25% less cubic density — we have those gloomy clefts of streets which disgrace our towns."

So, the essential principle is spelt out, that if you increase the height of the buildings from 20 metres to well over 200 metres on the same site and with the same cube (or even 25% greater cube), you can also increase the amount of unbuilt-on land around them by ten-fold. This ten-fold increase in space allows you to lay out lawns and plant trees, and run vehicles on dedicated and elevated roadways remote from the buildings, so that office workers and households can look out in peace over a 'serried mass of trees swaying beneath them' and walk among them. The sixty-storey towers, be it noted, were to be reserved for offices since 'family life would hardly be at home in them'⁷: housing would be in widely-spaced twelve-storey linear blocks allowing everyone an outlook over generous green space — the constant theme. It is one Le Corbusier seemingly brought over from his earlier commitment to the Garden City and it distinguishes his urban vision from that of the Futurists, of Fritz Lang's film *Metropolis* of 1927, of Ludwig Hilbersheimer's *Vertical City* of 1924, of every futuristic multi-level dystopian or even utopian fantasy of the Modern City, where nature is notable by its absence (in *Metropolis*, only scenes showing the ruling elite at home have greenery, the rest are in deep and treeless chasms or laboratories or underground).

Le Corbusier shows himself alive to the 'Balzacian' attractions of the street 'where those who have eyes in the heads can find plenty to amuse them', but rejects it because "There is neither the pride which results from order nor the

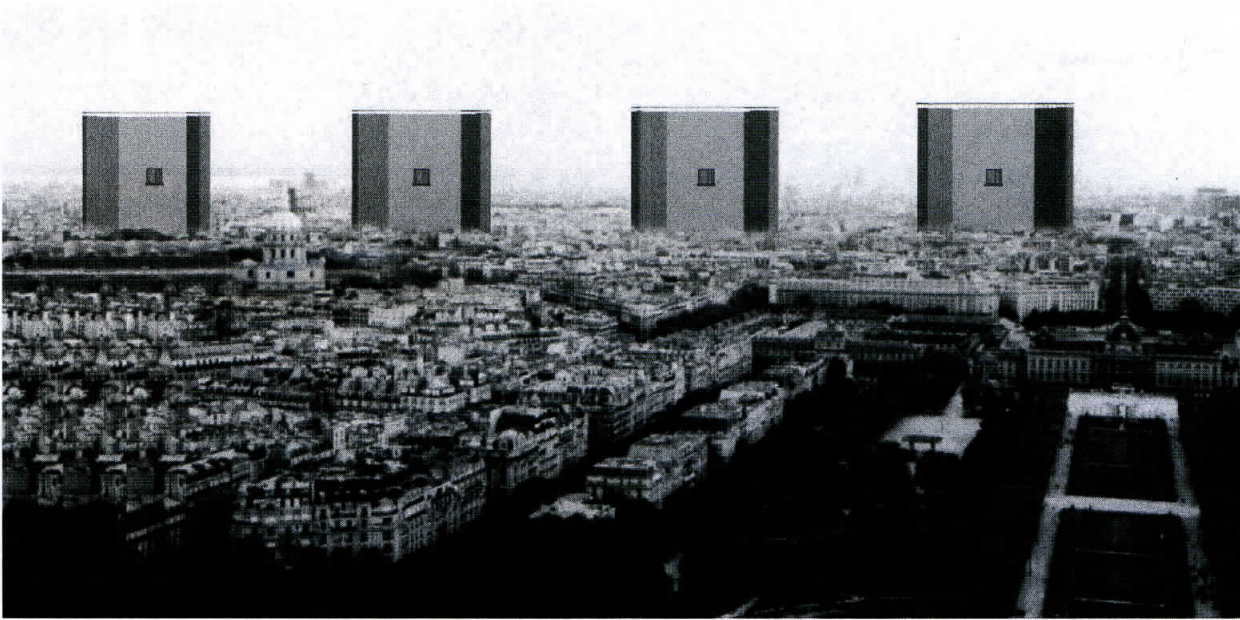


Fig. 3. The four 'Cartesian Skyscrapers' of the 1936 Paris Plan 37 transposed to Montparnasse. © James Dunnett, c. 1995.

spirit of initiative which is engendered by wide spaces.....' — and because of its inability to cope with a 'narrow, leisurely stream of horse-drawn vehicles swollen into a broad estuary of rushing motorcars.'⁸ So his motivation in proposing the drastic reform of the city, and Paris in particular, was both spatial and technical.

The solution proposed to the technical traffic problem failed fully to appreciate the scale of the roads required even to deal adequately with the relatively few cars that it attempted to accommodate. Though we are told that for each apartment there will be a parking space, the number of parking spaces provided for each office tower does not appear to be more than 600 — though each may have 30,000 or more employees. So the vast majority of workers will arrive by public transport, presumably to the rail station immediately beneath each tower. Even so, as I have shown elsewhere⁹, the amount of road space provided, impressive though it looks on the drawings, is scarcely adequate for the amount of parking provided, especially since the design of the cloverleaf junctions is far too tight by current standards and would seriously impede traffic flow. Nevertheless, the principle of grade separation, pedestrian segregation, and removal of through traffic from the immediate vicinity of occupied buildings was sound and prescient for its time, as were his ideas on public transport.

But it is his subjective spatial conception expressed in the slogan 'light, space, greenery', on which I want to focus, and with it on his sense of scale. The vast scale of his proposals at their most idealistic is not always appreciated when presented on the printed page. In *Urbanisme* he writes elo-

quently of the sense of euphoria he experiences from climbing the Eiffel Tower, which was then still the tallest building in the world — but only 30% taller than the cruciform skyscrapers that he was proposing:

If I climb up to the platforms of the Eiffel Tower, the very act of mounting gives me a feeling of gladness; the moment is a joyful one, and also a solemn one. And in proportion as the horizon widens more and more, one's thought seems to take on a larger and more comprehensive cast: similarly if everything in the physical sphere widens out, if the lungs expand more fully and the eye takes in vast distances, so too the spirit is roused to a vital activity. Optimism fills the mind... Remember that up till now... Alpine climbers alone have enjoyed the intoxication of great heights.¹⁰

Le Corbusier himself in his youth was one of those Alpine climbers, with his enthusiastic father. He goes on to point out that:

offices [at such heights] will give us the feeling of "look-outs" dominating an ordered world. And actually these skyscrapers will contain the city's brains, the brains of the whole nation.

So the psychological impact of his spatial conception was very important to Le Corbusier — the idea that light and air could lead to clarity of mind for the 'brains of the whole nation', in the rational planned world that he hoped — the Modern Movement as a whole hoped — to promote. Large scale was important for that 'expansion of the mind'

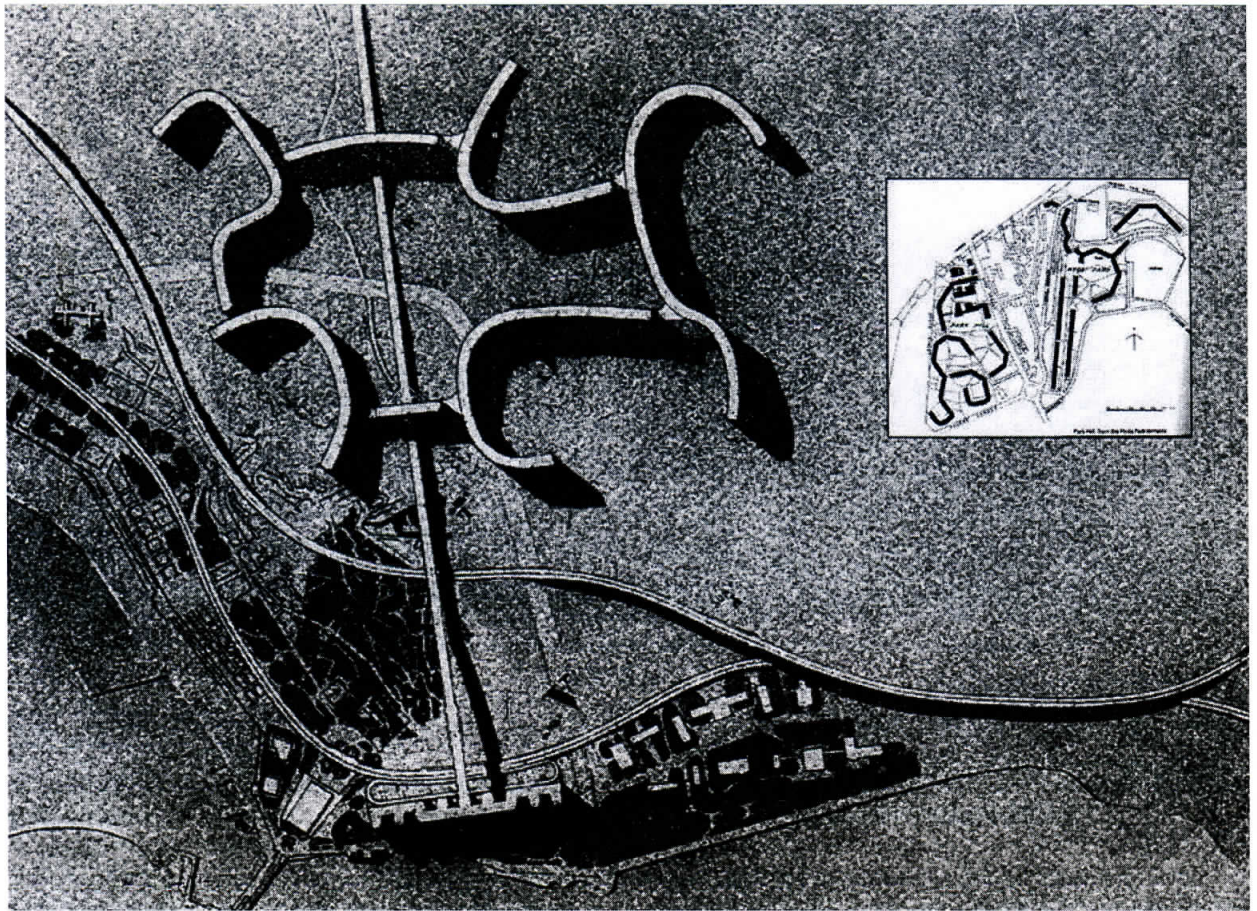


Fig. 4. Le Corbusier's Plan Obus for Algiers, 1931, with Sheffield Park Hill and Hyde Park estates inserted to the same scale. © Le Corbusier Foundation.

— a broad outlook physically would lead to a broad outlook mentally. To appreciate the scale of his projects it is instructive to compare them to existing buildings, as shown on the attached Figs. 2–4. Fig. 2 compares a cruciform office skyscraper as proposed in the Plan Voisin with the Eiffel Tower, built 1887–89, and with the United Nations Secretariat in New York, built from 1947 on the basis of an original conception by Le Corbusier. (It is the nearest he ever got actually to building a large-scale modern office building, which he described as 'the first appearance of the Radiant City in the urban fabric of Manhattan', and it is of course set in a beautiful landscaped site of 7.00ha, with the wide space of the East River alongside it). The cruciform skyscrapers — and the Y-plan skyscrapers he proposed later — would be 74m taller than the UN Secretariat. Fig. 3 is a computer graphic of mine of about 25 years ago showing the four Y-shaped skyscrapers of his Plan 37 for Paris transferred to Montparnasse and superimposed on a photograph taken from one of the lower platforms of the Eiffel Tower, with the Ecole Militaire and the dome of the Invalides in front. Fig. 4 shows the Fort L'Empereur residential area of Le Corbusier's Plan Obus

for Algiers of 1931 — designated by him a 'Cité Jardin en Hauteur' [Vertical Garden City]¹¹ —, with the plan of the housing projects at Park Hill and Hyde Park in Sheffield, UK, built 1957–65, inset to the same scale. Their layouts were supposedly influenced by the Plan Obus but can be seen to be a fraction of its size. This difference of scale matters not just psychologically but also because the ground surface between the major buildings can be more useful the larger it gets. The 'space apart' is the key — the space between the buildings —, because it is that space that allows the expansion of the mind and the penetration of light and greenery — and brings psychological freedom. It is also the key architecturally, because if in Corbusian terms architecture is 'the masterly, correct, and magnificent play of forms under light'¹², then a building needs to be seen freely in space for its forms to tell and for light to play on them. It is to allow those forms to make their impact that the suppression of surface detail — the traditional staple of architecture — can be justified. Buildings without either surface detail or space — the condition of very much building today — lack means of expression. That sense of space — and with it, light and green-

ery — does not have to be on the vast scale of Le Corbusier's urban projects, where it is exploited to the most dramatic effect, but can be present through a whole range of scales. It is an attitude of mind. It may be put alongside the concept of *ma* in Japanese landscape gardening — 'Ma is essentially a Shinto concept and refers to the significance and balance of the space between things.'¹³

The concept of the 'Green City' and its space was present effectively in the work of all the major architects of the Modern Movement: of Mies — think of Lafayette Park in Detroit or even the space in front of the Seagram building —, of Gropius — the Wansee housing project of 1932 —, of Goldfinger in the UK. Frank Lloyd Wright's Broadacre City project was also programmatically 'green', where he thought in terms of broadly spaced individual houses but was ready to deploy towers amongst them — even the 'Mile High Illinois', scaled beyond reason. That sense of space has been lost — it is certainly not present in the Kings Cross development I referred to earlier where the executives of Google and of Facebook (also based there) will not be enjoying the mind-expanding conditions envisaged by Le Corbusier, nor to my knowledge anywhere else in the world. It is a sense of space — and light and greenery —, which starts from a person in a room and the conditions in which they are set and their view out, which was the humane contribution of the Modern Movement. It needs to be rediscovered.

NOTES

- 1 Le Corbusier, *Précisions sur un Etat Present de L'Architecture et L'Urbanisme*, Paris, 1929, 155.
- 2 *Le Corbusier Oeuvre Complète 1938–46*, Editions Girsberger, Zurich, 1946, 69.
- 3 The Masterplan was prepared by architects Allies and Morrison, with Demetri Porphyrios, who have also designed individual buildings.
- 4 Le Corbusier, *Urbanisme*, Paris, 1925, *The City of Tomorrow*, Frederick Etchells (trans.), London, 1929.
- 5 Le Corbusier, *The Decorative Art of Today*, caption in Preface to the 1959 Edition, James Dunnett (trans.), London, 1987.
- 6 *Le Corbusier and Pierre Jeanneret The Complete Architectural Works 1910–1929*, W. Boesiger & O. Stonorow (eds.), London, 1966, 110–119 (first edition, Paris, 1929). "The Street" was originally published in *L'Intransigeant*, May 1929.
- 7 Le Corbusier, *Towards a New Architecture*, Frederick Etchells (trans.), London, 1946, 54.
- 8 Le Corbusier, "The Street," op. cit.
- 9 "Le Corbusier and the City Without Streets," Thomas Dekker (ed.), *The Modern City Revisited*, London, 2000, 69.
- 10 Le Corbusier, *The City of Tomorrow*, Frederick Etchells (trans.), London, 1998, 184. Two photographs of the view from the Eiffel Tower are also included in the text at this point.
- 11 Le Corbusier, *The Radiant City*, London, 1964, 247.
- 12 Le Corbusier, *Towards a New Architecture*, op. cit., 31.
- 13 Monty Don & Derry Moore, *Japanese Gardens — A Journey*, London, 2019, 39.