# Fear and Awe in the Vertical City: the Affective Space of "Going High"

**FEDERICO DE MATTEIS**
*University of L'Aquila*

**Abstract**
*Vertical cities are the hallmark of modern urbanization, and since their origin have represented the global places of progress, power and affluency. As skyscrapers and towers soar around the world, in an ever-increasing quest for height, the space of cities changes, affording its inhabitants with new, powerful affects. Yet not all emotions produced by the verticality of buildings are positive: together with the awe and wonder of the challenge to the sky, fear and anxiety also make their way into the urban subjects' embodied experiences. In this paper, I enucleate some of the spatial dynamics of verticality, and discuss the pros and cons of this model of urbanization, together with some of its further implications, such as the repercussions on density and sustainability.*

**Keywords**
Vertical city, affective space, phenomenology of the city

## The vertical city-beautiful

The Vertical City is quite obviously one of the great inventions of modern architecture. Few other urban models can compare to it in terms of visionary power, symbolic dimension, future-oriented dynamism. All of the world's "capital" cities – and I mean those that are most economically relevant rather than the seats of politics and administration – have pursued a quest for height: from New York and Chicago, which were the earliest to espouse this model, to London and Frankfurt, Shanghai and Tokyo, Beirut and Moscow.

Paris is so in love with its low skyline that the only vertical neighborhood – La Défense – has been built far and away, beyond the psychological boundaries of the Périphérique, and the Tour Montparnasse, the sole tower within the city's center, is certainly the one building Parisians hate the most. In Italy, Rome's backward architectural milieu has only spawned a few timid towers far south of the historic center beyond EUR, while Milano has complemented its once lonesome Pirelli Tower and Torre Velasca with a bunch of near-skyscrapers.

What we understand right away from this summary list of vertical cities is that "going high" is not just about the economically more efficient use of the land. The space a vertical city establishes "feels" in an altogether different way: what we are speaking of is the undeniable sense of awe and power that high buildings inspire in the human subjects who inhabit or visit these cities.

The connection between height and sense of power is easily explained in terms of proxemics, i.e. the relationship existing between spatial arrangements and social structures (Hall, 1966). Just to make a few examples: superheroes brood over the city they protect from the top of skyscrapers rather than from a basement. The abode of the Greek gods is on the peak of Mount Olympus, while Mount Kailash is the home of Hinduist Shiva and doubles as the sacred Mount Meru for Buddhists. Medieval castles typically reside on their surrounding territory's highest peak, and within their throne-room the ruler occupies the highest position. In his last film Game of Death, Bruce Lee must battle his way upwards of a tall pagoda, encountering ever more powerful opponents along the way, and the evil boss at the very top – a topological model that has been widely adopted also by video game narration. Closer to our days, global hubs such as Dubai or Seoul battle to boast the world's tallest buildings, and major corporations once placed their headquarters inside skyscrapers, as also transposed in Iron Man's Stark Industries tower – although quite tellingly today's tech giants all reside in low and sprawling Californian campuses rather than in Manhattan's skyscrapers. The list could go on forever, and the association between the vertical city and terms like success, power, affluency, wealth, dynamism, progress etc. clearly demonstrates that we could almost reconceive the vertical city as the city-beautiful of the late 20 th / early 21 st centuries.

To further sustain this argument, we can consider the extent to which utopian or otherwise future-oriented anticipations of urbanity have relied on the visionary energy of verticality: this iconic power has been widely leveraged by architects (Figure 1). Consider, as examples, Antonio Sant'Elia's futuristic infrastructures, or Arata Isozaki's Metabolist plan for Tokyo's Shinjuku area – and in cinema, where the galactic cities in the Star Wars universe reach all the way into the sky. The future may be green and happy or dark and uncannily dystopian, terrestrial or celestial, but in any case, it will take place in a vertical city.

## The vertical body

One question we might want to ask at this point regards the evolutionary roots of our relationship to vertical spaces. It is perhaps not enough to say that vertical cities embody the sense of awe and power that we have just described: we should look a bit closer at the reasons for this preference. Does it have to do with the "glamour" embedded in any vertical city – New York first and above all – and the symbolic dimension of power they convey? Or is there something else at work, something that is inherently connected to the way we "function" as human beings, and how we go about in the spaces and cities we inhabit? Let's try to explore this point a bit further.

Today, there is a widely shared notion concerning the role of the body in the experience of spaces. Across the disciplines of architecture, urban studies, philosophy, neurosciences, and humanities such as social studies, geography, and others, scholars agree on the fact that human subjects "resonate" with their ambient environment (De Matteis, 2021a, 36). They respond to whatever they encounter in the world: other people, objects, buildings, trees and animals, but also to transient conditions such as sound and noises, smells, the wind, sunlight, the sky, etc. To "respond" means not just a mechanical cause-and-effect relation, but a more nuanced form of relationship, where we are struck both in our way of moving about and in our emotions. The space of a city can elicit powerful emotions: joy and awe, but also fear and disgust. Indeed, the history of modern urbanization, from the industrial revolution onwards, has shown us how we both love and loathe our cities, how we are fatally attracted by them but at the same time periodically seek to escape, perhaps looking for a refuge in closer contact with nature and the ground. There is not much more to explain because you all know what I'm speaking about, the way a city can make us feel when it delights us or just becomes too much, is something we feel in our bodies, in their contracting when fear or stress takes over, or how they expand when, on the other hand, a pleasant urban scenery or a familiar setting we love to return to makes our body relax (Hasse, 2012).

These responses to urban space are not just arbitrary, they don't simply depend on who I am, on what type of city I prefer, or if this is the city I was born and raised in or just a place I visit as a tourist. There are some aspects of space that strike us all the same, independently of our disposition and preferences. One of these is certainly relatable to factors such as the morphology of buildings, their density, the layout and dimension of streets: in short, all those geometric factors that prompt us to move in a certain way, look in certain directions more than in others, and allows us to see certain things while cloaking away others.

For example: if I walk in the narrow streets of a typical his-

toric center, such as those that can be found in Italy, my gaze will often be shortened by the curving irregularity of the streets and facades, allowing little distant view. The narrow streets will also reduce the vision of the sky while putting me in close contact with a myriad of openings – windows, doors, galleries, intersections – from where I can look "into" the buildings' interior spaces, while at the same time being observed (De Matteis, 2018). This is the typical dense city model which favors the unfolding of a certain way of urban life, the one for example advocated by Jane Jacobs in her celebrated 1960 book The Death and Life of Great American Cities, but also in Camillo Sitte's late 19th-century urban design classic City Planning according to Artistic Principles.

Second example: a wide boulevard shelters me from unwanted gazes and affords a lot of air, sunlight, and where applicable, greenery. These are all features largely absent in the traditional, dense city core, but that can be found in many examples of planned 20 th century city. Is this better or worse than the previous example? It might be both, depending on several other factors, but what I do know is that this urban scenario makes me feel altogether differently. While the first was intimate and protective but exposed me to a direct – and perhaps unwanted – eye and physical contact with other people, here I am more master of my own space, and can dominate it with my gaze. Nevertheless, I'm also more exposed and perhaps might even feel a bit lonely.

Thirdly, we come to the vertical city. Obviously, not all vertical cities are the same, as this is a very generic term: one thing is the skyscraper city, which can only be found in selected neighborhoods of a few world-leading metropolises, another thing is the more common lower-density city where occasional tall buildings populate the skyline; in addition, in both categories, we can find a multiplicity of variations and declinations. But we're not here to make a taxonomy, but rather understand what it feels like to be here. In a city where tall buildings are the rule – and which are also frequently associated with a grid-plan layout – there is a very specific corporeal sense deriving from the presence of the gigantic, vertical towers. It might be because we are almost instinctively pulled to look upwards, to observe the buildings' top, forced to perform a certain torsion with our back that we know very well. Or perhaps it's the very reduced relationship with the sky, which is largely cut off by the tall buildings. Or, finally, it is a matter of the skyscrapers' sheer size, the way we "feel" their presence, not unlike the way a large, monumental ancient tree makes itself felt (Böhme, 2017, 26).

Perhaps it is a combination of all these factors, of what we are allowed to see and what we are not, and the way our own body resonates with the physical objects that occupy this urban space.

We could almost claim that there is a "vertical feeling" that is associated to a certain type of urban space. But I wish to be a bit more precise, to articulate this emotional condition afforded by high-rising cities a little further. How we perceive a certain space, and how we resonate to its qualities, can differ radically depending on where I am observing it from. In the city there is

always a dialectic between inside and outside – I'm safe inside the building and I'm exposed in the open space. But the vertical organization of spaces adds something more to this divide: the higher the spot you occupy, the stronger your dominance upon the urban space, and, consequently, upon the other citizens. No one can feel as powerful and protected as "the man in the high castle", and there is no equality in the spatial relationship that is established. Whoever resides at the very top of the tower is the lord of the land, a Foucaultian position of power well depicted in Sauron's eye floating at the summit of an ominous building, master of a "scopic regime".

It's indeed interesting to observe how the vertical city is represented in media, and how the different representations account for a certain perspective not only upon urban space, but also on how the city's denizens interact with this space. To return to the world's most celebrated vertical city – Manhattan (Figure 2) – we know of an infinity of films where the opening sequence is shot from a helicopter flight along its glorious, unmistakable skyline. This often doubles with high-end lawyers' offices, Wall Street titans, and the rich and prosperous dwelling in their 5th Avenue attics-cum-view.

But there is also another Manhattan, the seedy and dark labyrinth of back-alleys, and forgotten fire-stairs, where the street space is perpetually overshadowed by some looming, dark skyscraper – the atmospheric grounds that spawned Batman's Gotham City (Figure 3). There is nothing lofty or luminous here, rather the shady dealings of an urban low-life that finds its space in the darker edges of the grid plan, and whoever happens to get lost here at the wrong time of day may end up in trouble.

The vertical inequality of a city like Manhattan thus tells us of something else that is at stake here: to occupy the top floors of the towers represents a condition of privilege, of well-being and safety, while whoever is forced to reside in the city's cellars and basements is as far removed as possible from this happy situation. A vertical division related to wealth and census is something quite common to find – remember, for example, the topological metaphor in Bong Joon-ho's Parasite, where the rich Park family's abode is a modernist villa sitting in Seoul's hilly outcroppings, while the poor Kim inhabit a lowly basement that gets flooded at every heavy rain. But in the case of the vertical city, the inequality is artificially extended, adding a layer of physical dominance that is expressed by the controlling gaze by which the attic-dweller enforces his power over those who are not entitled to leave the ground. There is a political dimension in the vertical city that is hard to ignore, and that the regulatory framework that allows for tall buildings to rise entirely overlooks.

The topological articulation of the vertical city establishes bodily regimes: it allows the fortunate ones who occupy the top floors to relax, as from their aerial refuges they can contemplate the vastness of the sky, while keeping at bay the congestion, the traffic and the disease dwelling on the street and in basements. It is not a matter of density alone: even when the tall buildings are distanced from each other rather than side-by-side as in the hyper-dense agglomerations that we can find in throughout the

globe, all the filth that urban life inevitably conjures is left on the ground, to be dealt with only by those who are not allowed into the marble lobbies and mirror-clad elevators.

## Fear of heights

This double-faced nature of vertical cities prompts further considerations. Where tall buildings rise, we may have the city of awe, of progress, sunlight and air, a sort of ville radieuse. But it can also become the place of fear and anxiety, of terror and of the uncontrollable urban space that prowls the streets like a man-eating beast (De Matteis, 2021b). It may sound a bit excessive, but what we do know for sure is that verticality affords no bland emotions: it can delight us with the highest thrill of world-domination, but also crush us with the pressure of an overwhelming bodily contraction, largely depending on what floor you live in. Fear of heights is thus not just the terror elicited by vertigo, but also what may happen if the higher levels remain inaccessible.

Building high has some obvious advantages, but also brings along several disturbances. Returning to proxemics, and to the way social life unfolds amidst the vertical city, one could turn to Jan Gehl (2010) to observe how the interaction between people is hindered by distance and height (Figure 4). Beyond a certain measure, the recognizability of a face becomes difficult, and a building taller than four floors makes it impossible to interact vocally with the street level. Quite obviously these are all interpersonal exchanges that are more likely to occur in the traditional urban fabric than in the modern city, but for this same reason, we usually consider the skyscraper-laden central business district as a place of isolation rather than integration, where public life in the street drops to zero when offices close. This type of space certainly appeals more to capital markets and real estate speculation – which both benefit from the concentration of financial activities and specialized workforce – than to active urban life.

Once again, we are considering the political dimension of verticality: tall buildings make urban spaces that are exclusive rather than inclusive, that mark clear boundaries and perform a strict selection upon who has access to their spaces. No wonder then that realtors market residential towers as luxury spaces both for the breathtaking view to be had in their attics, and for the security afforded by a building with a centralized entrance and closely controlled perimeters. But is it entirely true that tall buildings give us such a strong sense of safety? After all, one of the archetypal myths is that of Icarus, who found his death while challenging the height of the sky with his man- made wings. Cinema, once again, provides us with some useful insight: the action-movie classic Die Hard sets the entire narrative inside a skyscraper that has been taken over by terrorists, and due to its very height and fortress-like configuration cannot be stormed and rescued. In The Matrix, a significant part of the narrative is articulated on the high buildings vs. low street duality, and the main character's process of liberation unfolds also through the loss of sense of vertigo weakening him before his release. In all these representations, the skyscraper becomes a place that is inhospitable, almost inhabitable, in any case uncanny. Its very height, the scarce relationship with the horizontal freedom of the ground, and the "locked-in syndrome" purported by the inoperability of the windows transform it into the ultimate space of fear. The vertical city can elicit fear in its being totally an artificial space: even more than the traditional, horizontal city, here construction is pushed to its limits to maximize the Floor Area Ratio introduces a condition that goes beyond the normal feeling of inhabitation. Buildings are usually shelters, but they can indeed become traps: and in the vertical city this becomes even more evident when things go awry. A burning skyscraper is not just like any other building that is on fire: it becomes a fiendish torch from where escape is much harder and where firefighters are often unable to arrive. The 2017 incident at the London Grenfell tower (Figure 5), a disaster that has prompted a tough revision of fire safety regulations in Britain, was a national shock. But quite obviously the one event that is most closely tied to the idea of the vertical city and the disaster that can strike it is the incident that inaugurated the 21st century, something so deeply embedded in our contemporary culture, imaginary and conscience that it is not even necessary to name it. The famous photograph by Richard Drew simply titled Falling Man (Figure 6) fully embodies the terror and despair that deflagrated after the airplanes hit the towers. To build into the air, challenging the sky just like Icarus did, is not something that inspires awe alone: it can turn into terror when our ability of technical control over space fails, when something unexpected blocks the machinery of a complex building such as a skyscraper.

## Urban density

Quite obviously, the emotions that a vertical city affords are not given only by the vertical morphology. Tall buildings are not only born just because somebody decides that it's time to "take off": there is always an economic reason propelling the growth in height, the ballooning of land prices that occurs in cities that are growing and where everybody would want to live.

Attractive cities have a greater tendency to go high, to "make space" for as many people as possible. It is, in a way, like a popular restaurant that to accommodate more guests will pack the tables closer and closer, until you can easily participate in the conversation of the people sitting just next to you.

What we are speaking of is clearly a matter of density. Density has been a popular topic of investigation for architects and planners over the past few years, as FAR is an indicator that, utilizing a rather simple number, can give us a lot of clues about the nature of the city that we are observing (Reale, 2008). Some Asian cities, for example, have super-high densities where the FAR reaches into the double digits, whereas the typical North-American suburban sprawl has a density so far beyond "one" that it is hard to call that type of development "city" at all. European cities sit somewhere in between, although their once typical compact-city model has been progressively eroded by urban dispersion and "sprinkle", a phenomenon that especially along the Mediterranean is hardly giving up.

Yet the question of density, which is directly connected to that of vertical cities, is somewhat more complex. After all, FAR is a numerical indicator that reveals things but also cloaks others, and as any statistical device may prove highly reliable but also totally inexact, depending on the granularity of the considered sample. Just to give an example: a portion of urban fabric with a high FAR can both show the delightful vitality of urban cores, or the wild congestion and traffic that is just not as pleasing: beyond the amount of built substance, an urban space's character is also given by the way this space is used and managed, aspects that mere density indicators are pretty much blind to. In addition, the increased density produced by the presence of tall buildings may create a "disruption" of urban life, both because of the increased traffic flows, but perhaps more likely due to the inequality that is produced by the urban conflict between the attic dwellers and the pavement dwellers.

Density factors are loved by planners and administrations because – differently from many other devices to control development – they are hard to dispute, and give a rather clear indication of how things are expected to run once the building is completed. Nevertheless, experience also shows us how a hyper-dense city like Hong Kong can run much more smoothly than another with a lower density – take, for example, Rome – because of the way the public space is arranged, managed and used.

### Green propaganda
So far, we have spoken of the emotions that strike us very directly, affecting the way our body resonates with its ambient environment. We have seen how urban space can inspire awe or generate fear, and how vertical buildings give their contribution to either one – or sometimes both – of these affective dynamics. My concern is that these topics are constantly under-addressed when it comes to discussions about our contemporary cities, which are always drowned in arguments that are primarily of economic nature, and only eventually engage the political dimension. Nonetheless, there is one important topic which, although not directly speaking to the corporeal sphere, appears as very relevant when it comes to how our cities and our buildings are made.

Among the multiple crises we are facing in this opening sequence of the 21st century, the climate emergency seems to be one of the most urgent. The promise we receive on a daily basis is pretty much that of planetary destruction, to happen sometimes within the next decades unless drastic changes to our way of living are made, with remarkable previews that take the form of extreme weather, drought, inundations, storms, wildfires, etc. Despite this rather bleak outlook, it seems that there is indeed quite little being done to counter this tendency: if cities and communities should rather responsibly review their modes of development and find new ways to create wealth that guarantee a gentler impact on the environment, what we do see is that besides a veneer of environmental friendliness – that sometimes outright borders into "greenwashing" practices – the ways of doing are almost invariably the same as a few decades ago.

Tall buildings have always been considered among the main culprits for the lack of sustainability in the construction sector: they consume a huge amount of resources and embodied energy to build and run, and their height and generally strong transparency makes it difficult to heat and cool them without a huge energy expenditure – something that becomes even more relevant in these days, where energy costs are just soaring.

These topics began to be addressed already in the 1990s, when talk about sustainability in architecture was starting to be a more common topic (Herzog, 2000). Tall buildings with sealed envelopes – the typical, hyper-mechanized solution of North American skyscrapers – could not be naturally ventilated due to the fact that strong winds, unimpeded by the urban fabric or trees, would basically blow through them like a storm. Eventually, technical solutions with double or triple facades were introduced to allow passive cooling, at the expense of increased building costs and consumption of raw materials. In order to reduce the operational environmental impact of a skyscraper, it was necessary to front-load more complex constructive solutions, with an overall environmental balance that would still not prove to be effective.

A further problem is that wood construction, the most sustainable in terms of resources, is applied to tall buildings only in a limited way, and mostly in places where the wood industry is already well developed. In any case, it is by now common knowledge that trying to solve a complex problem such as that of a building's environmental impact by introducing more complexity – for example, cutting-edge technologies meant to mitigate energy consumption – usually backfires, creating further issues that only additional complexity can address, thereby initiating a vicious circle. In a nutshell: due to their very nature and the type of urban spaces they establish, tall buildings are not sustainable, unless… unless they are made to seem to be more sustainable.

Even without delving into the technical datum, it could be easy to dismiss this kind of architecture as a superficial, fully green-washed practice that cunning real estate developers espouse to appeal to foolish clients with absolutely no competence and the naïve imaginary of a child, all performed with the complicity of administrations who see in economic development – and on its repercussions, which are all too optimistically expected – the only reason for their existence. No major city in the world is today entirely free of this type of "green propaganda", a way of developing urban space that attempts to cloak the fact that to all ends, development is not sustainable, no matter how cleverly it can be done, or how many potted plants you can place on the balconies. To put plants on a balcony may well be a primary anthropological drive, descending from an old modernist tradition, but it is also the most naïve and degrading architectural invention of our times. The common objection to the conundrum of development is that sustainable thought is a by-product of Western capitalism, which attempts to sabotage the rise of emergent and competing economies, by claiming that they are affecting the planet's fragile global ecological balance. While this argument can be easily countered – it is, after all,

the rich Western world that largely contributes to pollution and climate change, despite all attempts at being sustainable – it is indeed true that there should exist a shared, global agenda towards whatever actions might mitigate human impact on ecosystems. If it is highly unlikely that development can be halted in any way, lest we dive head-first into a colossal and global economic and humanitarian crisis, then we can perhaps activate more reasonable ways of going about our cities and buildings.

In this sense, the vertical city model is by no means the best way to address such problems: a more sophisticated approach that contemplates a wider array of questions and possible answers, is probably more indicated. Alongside the usual matters that architects and planners incorporate in their thinking – design aesthetics, urban morphology, functionality –, what investors consider their priorities – cost efficiency, investment leverage and marketability –, and what finally administrations factor as crucial for their action – economic development, compliance with regulations and political return –, I would also add the fact that cities are the space of collective emotions, where individuals dwell and communities unfold, flourish or wither. Which of these will be the final destiny of urban space depends on a variety of factors that can be hardly controlled: in any case, where the designer is called to implement an expertise, there can be a contribution that goes beyond just the mere epidermic rhetoric that we so often witness in contemporary architecture.

## The vertical city of tomorrow

The final queue we may derive from the topics we have articulated is that "building high" is not simply "to build more": this may be an illusion summoned by the sorcerers of turbo-capitalist gain and by the shamans of hyper-liberalist politics. To raise buildings against the sky challenges a much more complex order of things, engaging the political sphere of the city, and meddling with emotions that are sometimes best left undisturbed.

As Tirana pursues its growth and development, shedding decades of urban stagnation and advancing to become a major metropolis in the Balcanic region but also the South of Europe, its community of designers, planners and administrators might well reflect on what kind of vision they are expecting for the next three, four, five decades. What we do know – because economic cycles are not entirely unpredictable – is that at some point the dynamic growth will slow: the city has been exploding for the past three decades and might grow further perhaps for ten or twenty more years, but the impulse will eventually come to an end, leaving an urban structure that will then remain in place for a much longer timespan. What will happen once the construction sites have gone, once the easy profit of real estate speculation has been reinvested in some other part of the world, and the business dynamism no longer provides benefit to a large swath of the city's population? What will happen when citizens will be left with an urban fabric that has been shaped according to the demands of the market rather than to that of their daily life? Will the city's space survive if it is taken over by an atmosphere of anxiety and darkness, just as it has happened so many other times in recent urban history? And although we are not here to teach lessons – for every city in the world has witnessed its successes and its failures, its days of splendor and its times of sadness, we just mean to invite those who are somehow in charge of what will happen to remember that cities can be places of joy, of wealth, capable of inspiring awe, but can also be full of fear and anxiety.

## References

Böhme, G. (2017). *The Aesthetics of Atmospheres.* London and New York: Routledge.

De Matteis, F. (2018). *The city as a mode of perception. Corporeal dynamics in urban space.* In F. Aletta &amp; J. Xiao (Eds.), Handbook of Research on Perception-driven Approaches to Urban Assessment and Design (pp. 438–457). Hershey: IGI Global.

De Matteis, F. (2021a). *Affective Spaces: Architecture and the Living Body.* London and New York: Routledge.

De Matteis, F. (2021b). *Fear of spaces, spaces of fear. Anxiety, agoraphobia and other urban affects.* In S. Catucci &amp; F. De Matteis (Eds.), The Affective City / 1 (pp. 274–295). Siracusa: LetteraVentidue.

Gehl, J. (2010). *Cities for People.* New York: Island Press.

Hall, E. T. (1966). *The Hidden Dimension.* New York: Anchor Books.

Hasse, J. (2012). *Atmosphären der Stadt: Aufgespürte Räume.* Berlin: Jovis.

Herzog, T. (Ed.). (2000). *Nachhaltige Höhe: Deutsche Messe AG Hannover Verwaltungsgebäude.* Munich: Prestel.

Jacobs, J. (1961). *The Death and Life of Great American Cities.* New York: Vintage Books.

Reale, L. (2008). *Densità Città Residenza: Tecniche di densificazione e strategie anti-sprawl.* Rome: Gangemi.

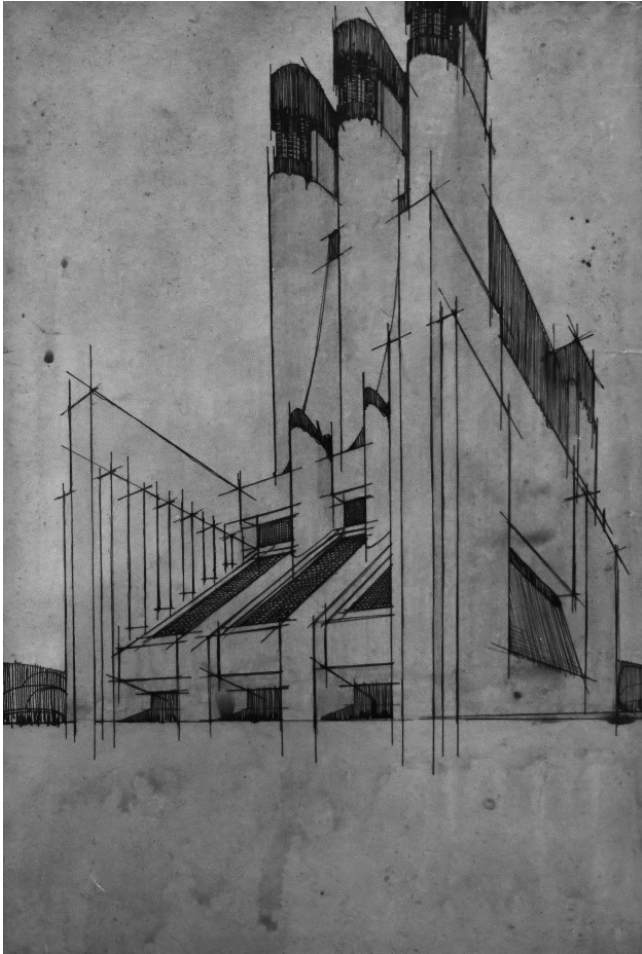Sitte, C. (1965). *City Planning According to Artistic Principles.* New York: Random House.

**Figure 1.** Antonio Sant'Elia, Preparatory study for a building, 1914



**Figure 2.** The Manhattan Skyline (Wikimedia Commons/Rhododendrites)



**Figure 3.** A Manhattan back alley



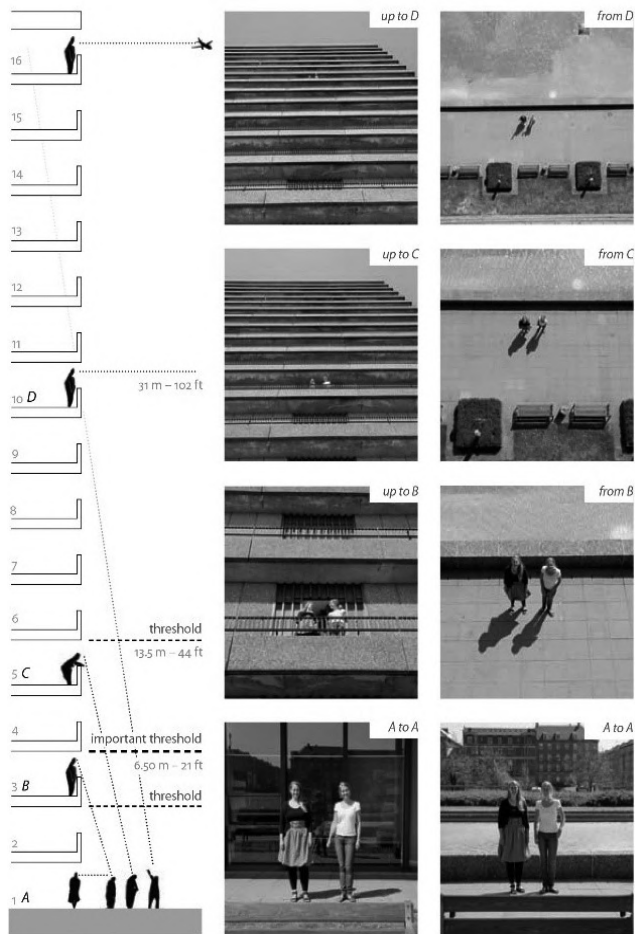**Figure 5.** Fire at the Grenfell tower, London, 2017

**Figure 4.** Senses and tall buildings. From J. Gehl, Cities for People, 2010



**Figure 6.** Richard Drew, Falling Man, 2001