Spatialising Design: architecture in the age of technological capitalism – power, verticality, and the street

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A city is measured by the character of its institutions. The street is one of its first institutions. Today, these institutions are on trial – Kahn, 1971:33.

Architecture has always stood in an important relation to power. The most obvious sense in which this is so is also the sense in which this relationship is most often thematized in the architectural literature – architecture seen as the embodiment of power understood in terms of *the exertion of control* and typically manifest in the way governments, organisations, and individuals use built form to express and reinforce their own attempts to exert and maintain control over populations, communities, groups, and individuals. The focus here is most often on architecture as an expression of the power of the state – something evident in the construction of capital cities, for instance, and explored in volumes such as Lawrence J. Vales, *Architecture, power, and national identity* (Vales 2008) and Michael Minkenberg's, *Power and Architecture: The Construction of Capitals and the Politics of Space* (Minkenberg 2014), but also in more widespread architectural forms and styles (see Dovey 1999; see also Calvert Journal 2016, for a discussion of power and architecture in a post-Soviet context). Sometimes, the focus here is on the way in which built forms exert control directly, but frequently the focus is also on the way in which built forms serve to enable and reinforce control in more indirect means through symbol and representation.

There is also, however, a deeper, if perhaps less obvious sense in which power and architecture are related – although it is a sense that underlies the connections referred to already. This is the sense in which architecture is not merely a means by which power is *exercised*, but rather part of the very structure by which power *is constituted*. Here power is understood, not merely in terms of control or the exertion of control, but more fundamentally as that which is productive of differentiation and ordering – including orderings of authority and subjectification. In this latter sense, power is at play in any and all forms of architecture, and it is so because the primary mode in which power is articulated is materially, which is to say through the ordering of place and space (as well as time), and this is just what is at issue, in a quite explicit way, in architecture. It is indeed only in and through the material and spatial, and often through the sensory affectivity that belongs to the material and spatial, that the representational and symbolic themselves operate. There have been

few studies that try, in any direct fashion, to interrogate the relation between power and architecture in this latter sense, and even fewer, if any, that approach this from within architectural theory.

One work that does begin to touch on this larger and more basic constellation of issues is Thomas A. Markus, *Buildings & Power: Freedom and Control in the Origin of Modern Building Types* (Markus 1993). A primary category in Markus's analysis is that of meaning, writing that "this book is about the meaning of buildings" (Markus 1993: xix). However, the analysis is not merely one that explores the conventional or superficial meanings that might be attached to buildings by their inhabitants, builders, or designers. Instead it aims to explore the way built form connects with deeper structures of meaning that are also at work socially and politically. What concerns Markus is thus the formation of meaning in the spatial and the material – and here the notion of meaning (as well as of language) is perhaps best understood in direct relation to the notion of power, as I characterised it earlier, in terms of the structure of ordering and differentiation – which is, one might say, why Markus' book is indeed titled 'Buildings and Power' rather than 'Buildings and Meaning'.

Although he criticises Markus for his neglect of military architecture in his analysis, Paul Hirst develops an approach that also aims to interrogate the relation between space and power, in a way that, like Markus, implicates notions of language and meaning (though from an explicitly Foucaultian reading) as this is articulated architecturally. In *Space and Power: Politics, War and Architecture* (Hirst, 2005), Hirst argues that alongside Foucault's example of the prison (exemplified in the Benthamite Panopticon – undoubtedly the most frequently cited example of the spatialization of power in built form) the military fortification provides an especially salient example of the way a total assemblage of political and societal phenomena are drawn together architecturally, and so also spatially. Here power, which is indeed understood as a larger structuring of relations, appears condensed into the form of bastion and trace.

Even here, in this example of the military fortification, power is more than just the attempt to exert control. Instead, as I noted earlier, power names the complex interplay of differentiation and identification – of inclusion and exclusion – that underpins ordering, and so also of control and subjectification. The fortress provides an example of the way ordering and control operate through spatially, control being primarily the control of space, through the separation of spaces, and through the way that separation enables the control of a larger space from within a smaller. While power is spatially articulated in this way, and so in terms of specific built forms, that articulation is never

purely local, since the structure of power is itself relational, always extending outwards, in much the way that place and space also extend outwards, connecting with other structures of differentiation and ordering, as well as contributing to such structures.

The spatialised character of power reflects the spatialised character of order and differentiation – the production of social and political forms is thus always a spatialised production. Such spatialization is evident both in the construction of spatial forms and in their destruction. This is particularly salient in the military case. The spatial character of military operation and formation – even its architectural orientation – is not evident only in the building of fortifications, or even in the assault on such fortifications. When military action is directed against civilian architecture [SLIDE], as it has often been so directed (in ancient warfare no less than modern), then we see the attempt to exert power militarily through the direct assault on the very fabric of a society and culture. Such destruction may not always be an explicit objective of military action, but whether deliberate or not, the inevitable modification of landscapes that occurs in warfare brings new formations of spatial and material organisation that are themselves productive of new formations of power – new orderings and differentiations of things.

Once the question of the relation between power and architecture is understood as a question concerning the inevitable materialisation of power, power being itself understood in relation to ordering – which is not yet to make any judgment on the character of the ordering so produced – then one can begin to ask after the nature of this materialisation as it occurs in architecture *as built form*, both in general and in particular cases. One can also ask after the way architecture *as a practice* participates in this materialisation – how it participates in the materialisation that is architecture as built form (in this latter way, the question of the relation between architecture and power is also a political and ethical question). In this talk, I want to focus primarily on the former rather than the latter, although inevitably questions of ethics and politics will never be far away.

As I have already noted, Markus, and to some extent Hirst also, emphasises the way in which built form is that through which meaning is articulated – as itself embodying larger discursive, and so in some sense 'linguistic' (perhaps we may even say 'semantic' and 'syntactic') structures. In Hirst's case this is directly derived from Foucault's work. One may, as I have already suggested, take 'meaning' here to be a way of referring to the structure of differentiation and ordering that is identical with the structure of power as productive. Yet this way of proceeding carries a certain ambiguity within it. Although meaning and power may be said to be articulated spatially and materially, it may not always be clear whether the character of the spatial and the material is

nevertheless entirely determined by the structure of meaning or of power or whether power and meaning are themselves shaped, in their own character, by the spatial and the material.   Does space 'make' power, we may ask, or does power 'make' space?

The answer to this latter question, at least in most contemporary theoretical circles, is usually that it is power that makes space, and that while we all too often assume that space makes power, this actually neglects the deeper structures that are operative here, embodying a naïve 'realism' about space as well as about power. Space may be that in which power is articulated, that in which power finds its materiality, but it is power that shapes space, power that takes form in space, so that the structure of space is a function of the structure of power. Space is thus, as is so often claimed, a construction of power. Or so the usual story has it.

Although my own approach is one that also takes the spatial to be that in which power is always materialised and so given concrete form in space, I do not view space as itself merely constructed – as 'made' by power. Indeed, to suppose that it is so is to overlook a basic and simple truth, namely, that the spatial, and so too the temporal, must itself provide the very frame within which any form of construction takes place. This means that the structure of spatiality, and even prior to that, the structure of place (for it is place that underpins the structure of space as well as time), is what itself determines the discursive articulation of power, or indeed of meaning. This means that the first step in understanding the way power is shaped in buildings is a matter of understand the structures that belong to space and place – a matter, in other words, of attending to what I have elsewhere termed the character of the topological or topographic.

Fundamental to any topology is the idea of the boundary or bounding surface. The ordering of space, and so the materialisation of power, operates first and foremost through the establishing of such boundaries. Even those forms of power that depend on treating another person as an object – slavery, for instance – depend on forms of material and spatial demarcation, often in relation to the body – the latter being itself a spatialised form. The bounding that is at issue here is not merely *constrictive* (as sometimes it may also be destructive) but is also *constructive* – it is the establishing of possibility through delimitation. This reflects the productive character of power noted earlier, but what is now evident is that the productivity of power is more fundamentally grounded in the productivity, the 'making possible', of the boundary. Perhaps the most obvious and basic way in which the boundary operate in this way is through the establishing of the relation between inner and outer. This is one reason why the wall, and secondarily the canopy or roof, nor matter how it is

realised (and there are many forms of such realisation), is such an important architectural form, and especially so when we focus on the way architecture relates to power, and so to the ordering and differentiating of things. The relation between inner and outer that the boundary establishes is always an asymmetrical relation (which is another way of saying that it is a relation directly tied to power and ordering). In marking off an inner from an outer space, the wall also establishes forms of inclusion and exclusion – and this, one might say, is the most basic form in which spatialised power operates.

The nature of the relation between inner and outer, in any particular case, is directly tied to the nature of the relation between built forms and their surrounding spaces or environments. How the inner space of a building relates to its outer space is mediated by the walls (including its canopy and floor) that constitute its very fabric, and which we might also call its constituting surfaces, and by the way those walls determine the interaction between inner and outer spaces. What is at issue in such interaction is the possibility of communication, ie movement, between spaces, where such movement may consist in the flow of information, of action, or of bodies. In terms of human experience, such communication is primarily a matter either of sensory or bodily movement: it involves the capacity, from one space, to see, hear, smell, or feel what is in the other; from one space, to act upon what is in the other; or from one space, to move bodily to the other. The movement and communication between inner and outer spaces is that which underpins the articulation and constitution of the materialisation of power in built form.

Although the account that I am sketching here applies to built forms as they appear anywhere, including, for instance, built forms as they may appear in rural or semi-rural landscapes, my particular concern in this discussion is with built form in urban settings – with architecture in the contemporary city. Part of the reason for this is that I am particularly interested in the way power is materialised, in architectural terms, in relation to modern technological capitalism, and it is in the contemporary city that this is most directly evident.

If what is at issue is the relation established by built forms between their inner spaces and the outer spaces surrounding them, then in an urban context, the primary focus (though it is certainly not the only possible focus) must be on the relation between the building and the street. One way of understanding the relation between inner and outer in general is in terms of a relation between that which is common and that which is apart, and certainly the street appears here as a space of commonality, even a public space, in contrast to the internalised space of the building which, in

virtue of its very internality, is also that which is apart from the common. None of this is to deny that it might be possible for the street to itself become internalised, so that some buildings might contain common spaces (perhaps one might argue that this happens, almost literally, in the case of the Parisian arcade or passage, that so obsessed Walter Benjamin), or even that different spaces might lose demarcation, so that it is no longer clear what is the street and what is not, but that there will always be the possibility of demarcating spaces that allow different degrees of accessibility and movement, and that the street represents a level of accessibility available to all. It is precisely the character of the street as a space of commonality that underlies Jane Jacobs' famous valorisation of the street in *The Death and Life of Great American Cities* (Jacobs 1961), and even if we are unwilling to endorse *all* that Jacobs has to say about the role of the street in the life of the city, still we can agree that it constitutes the common space in which the life of the city is indeed founded (see Kahn, 1971).

If we are to interrogate the way power is materialised in the contemporary city, it will thus be especially important to attend to the relation between the street and the building, and between the street and the dominant forms of contemporary buildings. Given the increasing tendency of contemporary cities to build vertically – especially so in the case of newer cities, and even in the case of many older cities, like London, that have previously been relatively low-rise in character – the question of the relation between street and building comes increasingly to concern the relation between the street and the high-rise tower (between, one might say, the horizontal and the vertical plane).

The modern tower is directly tied to modern technological development, not only in its construction methods and materials, but also in its dependence on the elevator. Without the latter, development beyond a few stories (five being about the highest) would be impracticable at least for commercial purposes (though to cite an ancient example, Roman apartment buildings or *insulae* were sometimes as high as ten stories, and so too were some medieval towers, though the latter often combined defensive with other functions). High-rise development includes buildings designed for commercial as well as residential use, and sometimes a combination of both. In residential terms, high-rise construction has, in the past, frequently been used for low-income housing – especially in the United States and the United Kingdom.

The large high-rise estate development that was common in the 1950s and into the 1970s, and that was designed to provide cheap housing, can itself be viewed as undermined by what was also, in effect, one of its aims – the concentration of the poor into spatially segregated communities. Such

concentration may have been seen as allowing more efficient provision of services and support, but often gave rise to ghettoization and frequently intensified disadvantage, providing a very immediate example of the way power operates spatially, through the establishment of forms of inclusion and exclusion (sometimes, architecturally, contrary to any explicit design intention) – even if the way that operates in the low-income tower block can be seen as effectively a form of exclusion of the poor from the realm of the public and the common. This does not mean that large scale public housing projects are always doomed to failure, nor does it imply that such projects should be abandoned (though many have been), but the other problematic features that often attend on such projects – poor construction and maintenance, inadequate planning, failure of support services – are often exacerbated by the spatial concentration that the tower, in particular, brings, at the same time as that spatial concentration, and with it the spatial dynamics of the tower, are seldom directly addressed

Although it is often said that the origins of the modern high-rise lie in the increasing cost of urban property and the consequent need to maximise the development value and opportunity of any given site, this seldom seems borne out by the facts of the case – neither in the past or now. Tower construction is often a difficult and expensive enterprise, and the provision of services becomes more costly the higher the building, so that there is no simple relationship between increase in height and concentration and increased in value or return. Moreover, the relatively low rates of occupancy of many tower developments provides a very clear counter to the idea that tower construction is based purely or primarily on economic considerations. Hirst points out in, relation to the design of military fortifications, that the nature of the design is never driven by strictly utilitarian defensive considerations, and the same applies to the supposed economic drivers of high-rise construction. There are instances where property values contribute to the way developments proceed; cost and profitability are factors in the design decisions around tower construction; and high-rise residential buildings can enable higher-density living with consequent benefits in the concentration of urban infrastructure (which can itself be read as indicative of a cost imperative). Nevertheless, the reality seems to be that tower building is underpinned, as it has always been, by a complex of factors many of which have little or nothing to do with the cost of land, and sometimes not even with the direct profitability of the building, but which are more often connected with the way the tower or high-rise functions to articulate other forms of power.

Vertical development has become a commonplace sight in cities around the world from Doha to Djakarta, Mumbai to Manchester, Sydney to Shanghai. Many of the greatest concentrations of high-

rise developments have occurred in areas outside of, even if somewhat adjacent to, the central city
– in areas where land is not a primary driver – and where placement of buildings at a distance from
one another actually results in medium-density land use. In this latter respect, the rise of the high
rise has often been part of a withdrawal from the city centre as development has focussed on areas
that offer greater latitude for large scale building projects – usually areas of dilapidated factories,
warehouses, or low-income housing. This is notably true of Canary Wharf in London, but also of the
Pudong New District in Shanghai, situated across the river from old Shanghai, of the Docklands area
in Melbourne (though this is much lower-rise and less extensive than Pudong), situated two
kilometres to the west of the Melbourne CBD, and of the more established development, often
taken as a model for others, of La Défence in Paris, located three kilometres from the city of Paris. In
these cases, high-rise architecture has been a key element in larger projects of urban redevelopment
that also takes commercial occupancy as a key element, even if it is mixed, as in the Docklands
example, with a high level of residential usage.

What also typifies many of these developments, to a greater or lesser extent (La Défence being less
exemplary of this tendency), is a distanced relation to the street – indeed in areas like Pudong, but
also Docklands, the street has become little more than a conduit for vehicular traffic with few
pedestrians or, indeed, anything very much that might encourage pedestrian activity. The buildings
themselves – in contrast to many older high-rise buildings (and especially the first generation of
modern towers that appeared Chicago in the late nineteenth century) – are generally closed off from
any public access. The ground floors, like the rest of these buildings, are frequently visually
impenetrable and inaccessible to anyone who does not have appropriate authorization. Rather than
there being even a lobby that might allow a degree of public movement between building and
street, these structures often prevent access at the very edge of the building itself and sometimes in
its surrounding forecourt.

The modern tower can often present an almost defensive orientation – its ground floor and lobby, if
it is open to the public at all, frequently becoming little more than a security space for the screening
and surveillance of visitors before granting access to the elevators. Significantly, these buildings not
only cut off access to the street, as they withdraw their activities into the building and away from
ground level, but they also, and for the same reasons, generally do not contribute to the street. In
some cases, notably in many of the Pudong buildings as well as in Docklands, there is only limited
bodily interaction between building and street as the buildings themselves contain internal parking
levels so that the buildings' inhabitants can enter and exit by vehicle, rather than having to do so on

foot. In many ways, the dominant interaction between building and street comes to be one of visuality as the building itself strives to dominate the surrounding landscape in which it sits (though invariably in competition with the other buildings around it) or in terms of the way the building surveills the street and surrounding landscape both through its security systems and by means of the views afforded by its height and omnipresent glass.

The relative lack of interaction between building and street is readily evident: consider almost any of he tall buildings that make up the streetscape of Pudong, Docklands, or even, to a lesser extent, La Défence, and one finds buildings set, each in its own area of open space, amidst a network of roads, with little or no integration at ground level, and relatively little pedestrian or other activity at the base. In Melbourne's Docklands, the towers themselves function to funnel winds in and around the buildings in a way that does little to make the street level more attractive to pedestrians, and in Pudong large areas of fairly undistinguished open space, often raised above the normal street level, provide the main routes for pedestrian access in those few areas of pedestrian concentration. No wonder that Docklands has been seen, in spite of various attempts at improvement (some more and some less successful) as something of an urban desert, while Pudong has often been described as exemplifying the spatial configuration that goes with a centralised and controlling politics. Even La Défence exhibits a similar reduction in activity and engagement at the street level, especially in newer constructions, and a similar tendency towards an almost defensive isolation of the building from the street. In recent years, especially, that lack of penetration is driven by concerns of security – increasingly the aim is to protect the building from any possibility of attack or incursion from the street level, and this becomes all the more important for corporate buildings, and for those buildings that are representative of national or globalised interests – and those are just the buildings that often aim to proclaim their status and significance by means of their salience, usually in height and singularity of design, within the wider urban landscape (the role of visual spectacle is an important part of the analysis in Graham, 2016, and more sympathetically explored, in the case of Pudong, in Greenspan 2012).

The withdrawal from the street – even a form of isolation from the street – is readily evident in the architecture of areas like Pudong (there are areas of Pudong especially that retain some low-rise mixed usage – see eg. Greenspan 2012 – but this is not what dominates in the area, although it does show the extent to which areas like Pudong are never entirely consistent in their character). To some extent these sorts of developments, so often set to one side of the city's existing centre (across the river from the historic Bund in the case of Pudong) and in which towers stand in relative isolation

from one another within a network of roads, can be seen as quite specific urban phenomena. But many of the features that they display, particularly the character of their relationship with the street and with the surrounding landscape are also evident in other high-rise tower constructions, including those set in denser urban locations. London has the example of Canary Wharf, but it also has the Shard, Western Europe's tallest building and a multi-use construction that combines office, retail stores, a hotel, and restaurants – and, of course, the inevitable viewing platform. The Shard, like many similar projects around the world, was presented as the key element in the regeneration of the London bridge area in which it was built, and it has certainly drawn tourists and commercial activity to the area. Its architect, Renzo Piano, is also the designer of another development that has ambitions to similarly revitalise the area around Paddington station. Of the projected building – the Paddington Cube – Piano has said that it will create "a wonderful sense of place which Paddington greatly needs" (quoted in Frearson 2015).

Talk of 'sense of place' seems to invoke issues concerning precisely the relation of the built form to the locale – the street and wider landscape – in which it is sited – something that seems poorly articulated in projects like those of Pudong or Docklands. But in fact, in the case of the Paddington project, which has been the focus for considerable local opposition, the building makes few, if any, concessions, to the existing place. Indeed, much of the opposition to the building has been on heritage grounds – the design being seen to be incompatible with the low-rise heritage character of the area as well as requiring the demolition of an existing heritage building (see Frearson 2015; also Cahall 2015). Talk of 'sense of place' in the case of a building like the Piano design in Paddington seems to refer more to the availability of opportunities for commercial and consumer activity and display, than to any richer or more complex sense of topological character. One might well argue that the 'revitalisation' accomplished by the Shard itself is similarly more to do with the stimulus of commercial and consumer activity than any genuine contribution to a more vital sense of locale.

In New York, the increasing proliferation of high-rise towers, often for residential apartments, has led to concerns about the loss of amenity on the streets below. As Fred A. Bernstein notes, making an explicit contrast with the towers of Pudong as well as Dubai, New York's new high-rise construction are "crowding into already dense neighbourhoods where light and air are at a premium, and quality-of-life issues are on the minds of everyone… The buildings are making the city less pleasant for anyone who cannot afford one of the condos in the sky." (Bernstein 2015). The withdrawal from the street occurs here as part of the consolidation of urban wealth in the upper levels of the city proving a physical instantiation of contemporary inequality that places the

privileged above and the less privileged below – as Bernstein puts it "Think of it as the new Upstairs, Downstairs, but on an urban scale" (Bernstein 2015). Here the street becomes that from which one withdraws, from which one aims to escape, and which becomes merely something to be viewed as well as defended against. Even in the case of multi-use buildings, the relation to the street remains problematic. The Shard, for all its claims to regeneration and revitalisation, makes no concession to the articulation of its relationship with the street at its base or to the wider urban landscape in which it sits. As Rowan Moore writes of the Vauxhall Tower development: "it makes no apparent effort to form any kind of relationship with its surroundings, neither a Georgian house behind it, nor even St George Wharf, an existing development by the same architects ... It does not relate to the river in any particular way or, in longer views, to the Palace of Westminster. It is just there, sullenly uncommunicative" (Moore, 2012). Moreover, the very character of multi-use towers as essentially spaces dedicated to the concentration and representation of globalised wealth and status, to residential exclusivity, and to high-end consumer activity, means that they essentially function as self-contained islands of privilege within what are often increasingly barren urban landscapes at the street level.

It might be argued that the withdrawal that is exemplified by the contemporary high-rise reflects a more general tendency in modern urban design – one also seen, for instance, in the organisation of many low-rise suburban developments. A major factor here – also evident in areas of high-rise development like Pudong and Docklands – is the prevalence of the private car as a primary means of transport. Where there is a reduced use of public transport, and where the primary use of the street is to enable the flow of vehicular traffic, then the relation between building and street will always be reduced. Yet while this is a factor in developments like Pudong and Docklands, as well as in places like Dubai and Doha, it is less so in the case of La Défence, and not a significant factor in most London or New York high-rise constructions. Moreover, even though the private home may be said always to have been characterised by a high degree of withdrawal – the private space of the home mirroring the private space of the self (a key point in Gaston Bachelard's topo-poetics of interior, domestic space, see Bachelard 1959), and recent decades may even have seen an increased withdrawal into the space of the home, still the withdrawal of the inner city high-rise has a very different character and significance from the withdrawal evident, for instance, in suburban areas – partly because it is indeed a phenomenon of the city itself, and because it so often reflects the transformation of cities under the impact of globalised capital and its technological instantiations.

The problematic relation of the high-rise tower to the street is indeed a function of the very character of the tower and was evident as a problem very early on in the development of high-rise construction. If it was less of a problem early on, as, for instance, in the case of early high-rise development in Chicago, and in later development in Manhattan, that was partly because it occurred in the midst of an urban landscape that was already much more active at the street level, and in which the street remained an important site of public engagement and exchange. The attempt to address the issue of the articulation between the high-rise and the street is a feature of some notable high-rise projects particularly in Manhattan. The Citicorp Building (later renamed Citigroup Center, and now called 601 Lexington) and the Rockefeller Center exemplify different solutions to this problem. In the case of the 1977 Citicorp Building (designed by Hugh Stubbins and often credited to its chief engineer, William LeMessurier), the attempt is almost physically to disconnect the tower itself from the street level through its elevation on large columns thereby leaving space for other constructions beneath (including a Lutheran church – space for which was a condition of the building's construction). The elevation, however, merely serves to exacerbate the sense of withdrawal and disconnection. The Rockefeller Centre, a much older construction incorporating several buildings with the original development occurring in the 1930s, maintains a much stronger level of integration with the street through concourses and a ground level plaza. One of the most iconic and influential New York high-rises, the Seagram Building, designed by Mies van der Rohe in conjunction with Philip Johnson, which set the pattern for many New York tower constructions, has a relatively utilitarian lobby providing access to the building's lifts (consistent with van der Rohe's functionalist aesthetic), but it also has a large setback and opens onto a large plaza at its front. If the articulation with the street is minimal here, one might also argue that the building itself retains a degree of modesty – it is not over-bearing in its relation to the street, and so the element of withdrawal may also be said to be, to some extent, minimised.

The articulation between building and street is an issue for all buildings precisely because it concerns that most basic of architectural relations, that is the relation between interior and exterior. In the case of the tower that relation becomes especially problematic simply because the tower necessarily involves a more restrictive, or as I said earlier, more defensive relationship to the street. The concentration of space within the tower form sets up issues in relation to the means in access to the building, both vertical and horizontal, and its tendency to dominate its site sets up issues concerning the way the tower relates to the immediately surrounding landscape as well as that which is set further apart. The very nature of the tower is such that always involves a degree of withdrawal from and of surveillance over – and this reflects, in fact, the role of the tower as such an important

feature of much military architecture (though how it operates militarily has changed with changing weaponry). There is reason to suppose, then, that wherever the tower or high-rise appears as an architectural form it will also exhibit these same features of withdrawal and surveillance. It should also be unsurprising to find the tower so much employed as a feature of contemporary architecture – the significance of the tower as a symbol of power, and so also of status and wealth, is directly tied to the spatial and topological formations with which it is associated. That is all the more so given the way the tower is itself so enmeshed within modern technological systems and devices.

The convergent and connected character of contemporary technology, which is to say, the character of that technology as tending towards increasingly complex and interconnected systems of operation (the so-called Internet of Things being one example of this), is a character also evident in the contemporary high-rise. Such constructions are not only impossible without modern technologies, but they are also thoroughly integrated with those technologies and with the economic systems with which they are in turn enmeshed. From the communications devices and helipads that may be found on their roofs, the complex systems of cabling and ducting that supply services and infrastructure, to the high-specification cladding and windows that make up their walls, contemporary tower buildings are intimately linked to the globalised world of modern technological capital. The very space that they contain is itself a thoroughly technological product – a genuine example, one might say, in which space is indeed 'produced', in which it has become a purely created commodity. In this way, the contemporary tower, with its extreme internalisation, its withdrawal from the realm of common public engagement, also exemplifies the increasing turn in modernity away from the realm of human commonality, and towards an increasingly technologically connected and mediated mode of largely individualised interaction. A mode of interaction that gives the illusion of increasing control, and yet remains bound to the same spatialised, materialised, and topological structures in which is embedded any and every form of being or appearance.

So, what does this imply for the possibility of future high-rise design and construction? The point is not that it should simply be ruled out of account from the start. Rather, the point is to understand the bounds within which the high-rise necessarily operates, and to be able to acknowledge and take account of those bounds. That is the real problem of so much contemporary high-rise design. Not merely that it occurs, but that it does so in a way that ignores or refuses the bounds that make it possible, that it ignores or refuses the place in which it arises.

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