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### Walling and the city: the effects of walls and walling within the city space

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# Walling and the city: the effects of walls and walling within the city space

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This paper focuses on the effects of walls and walling within the city's history. It aims to contribute to the knowledge of the underlying dynamics of public space within the city, whereby the visible physicality of walls contains and sometimes belies the invisible logic of their effects. The argument opens up by taking the analysis of city walls from Mumford's *City in History* into the framework of contemporary theory about space as the extension of power. The essay proceeds by investigating these ideas within the legacy of Alberti's treatise on architecture in respect to walls, walling and the city. The focus is on the effects of the displacement of defensive city walls in the gradual process of 'crystallisation' of urban space from the fifteenth century. The paper concludes with the analysis of the consequences in relation to Modernism and the metaphysics of walls and walling. The essay is a theoretical piece that refers to historical examples in order to contribute to our understanding of the deployment of walls, their lasting effects and related play of simulacra.

'Cities, like dreams, are made of desires and fears.'<sup>1</sup>

## Introduction

The analysis in this paper is set at the intersection of the traditional architectural canon exemplified in the architectural treatise by Leon Battista Alberti<sup>2</sup> and the analysis of space as argued by thinkers who have analysed space in relation to power, where space itself can become the extension and the resource of authority and control.<sup>3</sup> They have all in their own way argued that in its physicality and dynamic complexity, space is more than a setup in the service of power, as places create specific 'affordances'.<sup>4</sup> Places thus acquire traits and embody possibilities for action that are dormant in the environment, that are often objectively measurable and that can affect the conditions under which social control can be exercised and conflicts taken up and maintained.

Even underlying geographical and geological aspects such as land or sea, plains or mountains and climatic variations on a fundamental level have effects on social relationships, power, supremacy and practices as well as on institutions and the dynamics of life within the city. In this context, Lucien Febvre<sup>5</sup> provided a model of thinking of specific spaces shaped by power that in turn condition it. This has been an important breakthrough in thinking about history and space, an approach that was subsequently disseminated through the scholarly journal *Annales*, which Lucien Febvre ran jointly with his colleague Marc Bloch.<sup>6</sup> The leader of the second generation of this school of history, Fernand Braudel, has written a work on *The Mediterranean* that considered the past of this part of

Europe within the *Annales'* socio-economic analysis. In this extensive study, Braudel recounted a number of critical issues about the Mediterranean legacy for the rest of the world.<sup>7</sup> According to him, the inheritance of Mediterranean culture included cities and urbanism amongst other discoveries such as the cultivation of crops, monotheistic religion, language, laws, state, the written word and the instruments of chronology. Later on, Michel Foucault's studies of institutional enclosures and their spatiality provided another model for scrutiny that unravelled the dynamics of his power-knowledge concept, enabling us to think and to understand not only the structural logic of the effects of spaces such as fortification walls, prisons and schools but also churches, hospitals and enclosures in general.<sup>8</sup>

### **The city as the crystallised configuration that concentrates, generates and produces relational networks**

The emerging perception was that the city has always been part of a series of relational networks that took centuries to evolve: religious, commercial, artisanal, educational and others.<sup>9</sup> During this time a form of dependence, an unacknowledged association, was established between the city's physical and spatial entity and the life of its inhabitants. Mutual relationships of cognition, exchange and possibilities for action have been central to the way in which life in the city unfolds, and the way in which it came to influence attitudes, knowledge, relationships and the politics of city space. The associations, correspondences and their relationships to architecture and the physicality of urban structures alluded to here have not been systemati-

cally studied within the traditionally conceived discipline of political science, because political scientists have often disregarded the physical context of buildings and the city.<sup>10</sup>

Michel Foucault's legacy has altered this perception. He outlined the scale of the epistemological necessity to break up the traditionally assumed boundaries of knowledge and disciplines in order to disengage the statements into their original 'event' mode, as they had 'originally irrupted' as *énoncés*.<sup>11</sup> In doing so he opened the way for the statements to be rewritten into new unities of discourses. Foucault argued that as in the taxonomy of Buffon or Linnaeus, discursive order exists beyond books, in the systematic layout of museums and collections and in the practice of observing and classifying living beings and other natural and social phenomena. Foucault called these new unities discursive formations, defining them as essentially a system of dispersion that emerges between objects, statements, concepts, or thematic choices, where one can establish a regularity, a correlation, positions and functioning or transformation.<sup>12</sup>

As pointed out in Paul Hirst's reading of Foucault, the building or group of edifices can be regarded as a complex structure of discourse-practice in which objects, entities and activities are defined and constructed within the domain of a discursive formation.<sup>13</sup> In this way it becomes possible gradually to bridge the gap between theory and physical/spatial constructs, between the realm of ideas and the material world. It is possible to do so by means of analysing how discourses enter into construction and how buildings or groupings of urban structures

become statements. This position allows for freedom to open traditionally 'parcelled' knowledge and consider new questions, problems and enquiries. As such it is potentially productive within urban design studies when considering the city as the hub of a series of diverse networks subject to constant repositioning.<sup>14</sup>

The legacy of grasping ideas and matter was understood and explored further in the work of Manuel De Landa who synthesised historical changes within geology, biology and linguistics into history.<sup>15</sup> Based on developments in the sciences of dynamics, and drawing from Deleuze and Guattari, De Landa traced the actual interplay of matter and energy through human population in the last millennium, and came to interesting conclusions about entities such as cities. He was able to demonstrate how a specific dynamics of competition between European cities was an important factor in explaining why great countries such as China or the Islamic empires were subjected to European domination despite their early economic and technological command. This conquest is not seen as the result of 'progress' intelligently masterminded in Europe, but as the effect of cities drawn in 'mutually stimulated dynamics of competition involved in arms races' that intensified the accumulation of knowledge, technologies and certain institutional norms and organisation.<sup>16</sup>

The city and its history are therefore mobile, only partially stable and dependent upon networks of inventions and movements within languages, economy and technology. The dynamics of practices and knowledge that occurred on the level of European urbanities was that critical instance, the

decisive 'node' responsible for the continent's long-lasting dominant position.<sup>17</sup>

In exploring the specificity of European cities, the dynamics of walling is identified as one of the key instances in the history of urban space. Of particular concern here are the proceedings within architecture and urbanism of the fifteenth and sixteenth centuries.

The Annales school's recognition of intensive urban growth in Europe from the twelfth century onwards was significant. These emerging habitats contained a heterogeneous population whose association with the city remained unresolved.<sup>18</sup> As Jacques Rossiaud points out:

the cities and towns were vast necropolises for the rural world and consumed their rapidly replenished human raw material at an unprecedented rate.<sup>19</sup> The cities' influence greatly surpassed their demographic quantity as they became sites for new schools, new merchant systems, diversified crafts, trades and their markets. Cities were also often designated capitals by the princes, where the population still had to respect the basic feudal system, while emerging new hierarchies had to be acknowledged. According to one fourteenth-century authority on the problems of the emerging urban life, 'the populace needed to be taught the skill of living among many'.<sup>20</sup> This statement, not devoid of anxiety, reveals the conditions that will remain to be of concern during the *Quattrocento* as well.<sup>21</sup>

In fifteenth-century Italy, urban growth prompted the development of architectural theory and practice determining certain notions and systems in building cities with legacies that have held for centuries. The key *topos* in both theory and practice

was the definition of a set of design rules for the building and positioning of edifices within walled cities.

From the first urban settlements, the experience of the walled city's culture has been shaped by the interaction with the very condition it created: the set of controlling power relationships derived from the spatial requirements imposed by the defensive city walls where all other walls were secondary. Not to acknowledge this condition and the importance of its effects and its dialectics, to take it as 'natural' and 'common sense', would be to miss and falsify the conditions of the emergence of urban life and its space.

This condition relates to what has been described as the effects of the *exoskeleton* by Manuel De Landa. By *exoskeleton* he meant the sum of bricks, stones and mortar involved in the walls of the walled city. The author argued that the role of this mineralised 'outer skeleton' was similar to its internal counterpart: to control the movement of human flesh in and out of towns' walls.<sup>22</sup>

The role of walls in directing the flows and shaping public space is therefore a decisive function. On an immediate empirical level, walls are an architectural element, a piece of structure. As such they stand for separation, division and exclusion that on a social level give way to hierarchy and inequality. Walling has been practised for centuries and millennia, from its emergence in the ancient Middle East, spanning across the building of mediaeval city structures, to the practice of building thick walls for Renaissance edifices as well as the walls of eighteenth- and nineteenth-century civic and state institutions.

From its inception, the wall marks a line that divides people into 'us' and 'them', thus articulating spaces and as a consequence the relationships between the inhabitants. For people within, even a flat wall delineates a 'concave', 'hugging' space, while on the outside the wall leaves the *other* exposed in an always 'convex' external position. These alignments have never been neutral. The physical enunciation of the walls has always been a blueprint for the development of a series of relationships based on authority, supremacy and control.

The walled public space is very different from the open columnar space of the *agorae* and *stoa*e of antiquity. The ancients favoured columnar and inter-columnar spaces as they created concave configurations that supported their way of life and their collective memory (Fig. 1). In the words of a contemporary sociologist, it was enough to walk around the ancient city and learn about its citizens and their everyday life displayed in front of your eyes.<sup>23</sup> The ancients did not consider that flat, thick, opaque walls were a suitable background for the social life of the *polis*. The space created by walls is hard and resists the free play of configuration and movement provided by columns. The robust structure of walls suggests solidity and creates the physical set-up of opposition by keeping the other on the *other*—opposite side. Additionally, the walled space can suggest a journey parallel to its structure and a progress that is linear. In delineating for opposition, or in marking the sharp linear journey, walls often intimidate and daunt. They highlight the recognition of fragility and suggest vulnerability.



Figure 1. Agora in Athens: open and semi-open 'concave' spaces of *stoa*e and porticos, reconstruction model of the Agora c. 200 AD (courtesy, American School of Classical Studies at Athens).

At the same time and probably for the same reason of frailty, humans admire and often adore the intimidating, resilient and solid structures of walled cities. We love their articulation of elements, the interlocking of stones and bricks which point to the labour of our predecessors and stand for strength, power and stout resistance. Humans thus adhere and cling to the sheltering experience that walls provide, even when paradoxically, as we shall explain, walls exert paranoid effects upon human psyche (Fig. 2).

### **The walled city and the dynamics of walled enclosure: Lewis Mumford as a precursor of Foucault and Althusser**

In his seminal book, *The City in History*, the twentieth-century cultural historian Lewis Mumford pre-

sents an important series of arguments about the city and city walls,<sup>24</sup> which he discusses in relation to the metaphysical notion of opposition and its earthly form: confrontation.

*The City in History* appeared in 1961 at the height of the Cold War—in the same year as the Berlin wall was constructed and when in Paris Michel Foucault defended his doctorate entitled *Folie et déraison. Histoire de la folie à l'âge classique*, later translated as *Madness and Civilization: A History of Insanity at the Age of Reason*, which became the first in the series of his main works. (Mumford did not have access to this thesis at the time and there is no evidence that Foucault was reading Mumford.)

Written with a great insight into philosophy and history, Mumford's arguments remain remarkably

Figure 2. Pompeii,  
street with house walls,  
*paries* (photograph by  
the Author).



relevant within the contemporary political climate. In a chapter called 'The Crystallization of the City', this ardent follower of Patrick Geddes challenges the usual tropes about the historical city and the dominant romanticised ideas about the 'aptness of its scale', its superior adjustment to the conveniences of life and the customary applauding of its

good design.<sup>25</sup> By contrast, he traces the emergence of walled cities to the expansion of warfare and military activities. Mumford writes with considerable detail about the citadel ('little city') in the city's heart, articulating the instances in which it first had, at a small scale, most of the city's amenities. He states that in the citadel we find:





Figure 3. Illustration of the merging between the 'shrine' and the 'fortress': detail of the Porta Giovia (of Jupiter/Zeus) tower in the Castello Sforzesco Milan; there is evidence that the site of the mediaeval and later Renaissance tower once contained the temple of Zeus (photograph by Filippo Salamone).

the first foreign office, the first bureaucracy, the first court of law (at the gate of the palace), likewise, from the temple quarter, the first astronomical observatory, the first library, the first school and college: not least the first 'theatre'. All these flourished in the citadel before there were any independent municipal equivalents with a larger domain to work in, or any question of democratic participation.<sup>26</sup>

This description of the citadel that has always been part of the walling system of the city, shows the privilege and the supremacy that was given to the mili-

tary. The author's sensitivity and perception in this respect make him a forerunner of the works within social sciences that would follow a decade later.

Mumford poignantly draws our attention to a moment in the city's history when two separate social institutions, the fortress and the shrine, had merged into one (Fig. 3). This aspect is often forgotten and taken for granted. He reminds us that at some point either the shrine moved into the citadel or its sacred boundaries were placed around the stronghold. This has made the structure unbreakable and sacrosanct because 'it is only for

their gods that men exert themselves so extravagantly'.<sup>27</sup>

The process of urbanisation, that drew people within the city walls to live closer, Mumford saw as a mark of an anthropological shift from the rites of fertility and understanding of nature, to the wider cult of physical power. Once humans had lost charge of their own life and direct relationship to the land, once they became urban and enclosed within the city walls, they became more delicate and frail. The loss of understanding of the needs of life made it possible for the king's word to become law. The sovereign power was backed by military force, and helped by the overestimation of the roles of physical competency and organised control as determinates of communal life.<sup>28</sup>

In regards to physical weakness, the inhabitants of the city turned towards the cult of exercising and of setting up gymnasia. Consequently, the process of urbanisation and a new kind of enclosed city life became linked to the emergence of the first Olympic Games in Ancient Greece.

With regard to non-physical mental fragility, the enclosed city dwellers became prone to anxious and paranoid states of mind, which, Mumford argued, had, as their main factors, dwelling densities and the constant increase in fortification in the anticipation of enemies. The emergence of tragedy in ancient Greece was a means of releasing the accumulated tension. As documented in political studies, this moment of psychological frailty was throughout history consciously utilised by rulers to manipulate citizens. By the calculated creation of paranoia and by spreading anxiety, ruling elites provided a reliable means of raising revenue

for the military and state apparatuses in general. Mumford gives the responsibility to walls: 'Thus a paranoid psychological structure was preserved and transmitted by the walled city: the collective expression of a too heavily armoured personality.'<sup>29</sup>

This perception of the walled city as a heavily armoured entity reveals the truly problematic role of the city in its delineation of sovereign power. As the physical means increased, Mumford writes: 'this one-sided power mythology, sterile indeed, hostile to life, pushed its way into every corner of the urban scene and found, in the new institution of organised war, its completest expression.'<sup>30</sup>

Mumford's central argument is that preparing and investing in thoroughgoing military machinery—in the case of the fifteenth century—the city's fortifications do not create a feeling of security among its citizens, but rather the opposite. They begin to fear for themselves: a fear that provides an underlining basis for the (distorted) perception about the need for further militarisation, in the name of defence. The actual awareness of order in regards to what came first becomes lost, as fear breeds fear and more walls.

It was therefore only with the formation of fortified walled cities that humans found themselves in a situation of feeling terror and under threat by a presumed enemy—a *human enemy*.<sup>31</sup> This is unlike the feeling that prevailed before, when humans were unarmed, exposed to the elements and fearing animals (rural phase).

This *structurally* conditioned and crystallised need for the enemy, for the opposition (and by extension, the confrontation), is the most terrifying aspect of the architectonics that comes to determine the

minds of the citizens involved. More poignantly, this instance comes to mould the metaphysics of urban spatiality and of our metropolitan culture in Europe and the West in general.

The effects of this phenomenon, which is a direct consequence of the ideology linked to the walled city, has never deserted Western societies, their cities and the legacy of their spatiality. Once morphed, it became a condition, an urban stratum that was there to stay, part of our long-lasting urban geography. It has passed into the patterns of life, into a set of unwritten rules understood as common sense. The principle of opposition became an intrinsic component of Western thought as various philosophies incorporated it at their most general and deepest levels.<sup>32</sup>

*The City in History* was written before the publication of the seminal twentieth-century critical texts on society, power relationships and ideological state apparatuses by Michel Foucault and Louis Althusser, and therefore this analysis by Mumford is a significant milestone for the history of thought in general and the history of architecture and urbanism in particular. It remains both modern and timeless in the way in which it theorises the psychological effects of the technology of the war machine, the fortified city and their ideology. In respect to the time when it was written Mumford's scrutiny reveals the intellectual bravery of a humanist rising beyond prevalent ways of thinking.<sup>33</sup>

### Alberti and the logistics of walling

In Leon Battista Alberti's *De re aedificatoria*,<sup>34</sup> we can find the confirmation of the arguments raised by Lewis Mumford. Alberti's treatise was the first book

on urbanism that had systematically addressed concerns linked to the growth of the cities exemplified by the enlargement of built-up areas and the intensification of urban flows including those of human flesh, materials, information and energy. It is symptomatic that Alberti refers to cities primarily in terms of their strategic position and military role, stating unambiguously that cities were made not only for defence but for offence and the waging of wars in general.

This has always been the troubling aspect of *De re aedificatoria*, a feeling not eased when considered in the context of other *Quattrocento* texts such as Filarete's *Sforzinda* and Francesco di Giorgio Martini's *Trattati di architettura, ingegneria e arte militare*. Laurana's and Martini's designs of the fortified palazzo for the *condottiere* Federico da Montefeltro, the duke of Urbino, testify to the same point (figs 4, 5).<sup>35</sup> The works of Filarete and Martini show the extent to which architecture, surveillance, structural concerns and military engineering were linked and interlocked in the process of making a fifteenth-century city. Both Martini and Filarete referred to Alberti and his treatise as their major source.

The historical context that preceded the emergence of *De re aedificatoria* is instructive for understanding Alberti's position. It was the period when Alberti was in the service of a papacy that was trying to stabilise its position. When Pope Eugenius IV was expelled from Rome in 1434 he was forced to move around the peninsula seeking refuge in the cities of Florence, Bologna, Perugia and Ferrara. As *abbreviatore apostolico*,<sup>36</sup> Alberti was obliged to move with

Figure 4. Urbino, fortified palazzo for the Duke of Montefeltro: walls and towers built in the 1460s and 1470s by Luciano Laurana and Francesco di Giorgio Martini; the central façade is closed laterally by two slender towers surmounted by pinnacles (photograph by Il Conte di Luna).



the pope from 1434 until 1443 when he returned to Rome. It was the 1447 coronation of Tommaso Parentucelli as Pope Nicholas V that gave Alberti the opportunity to advance his interest in architecture and the city, as the pontiff had made Alberti his architectural adviser. *De re aedificatoria*, that had appeared as a manuscript in 1450, was dedicated to Nicholas V.<sup>37</sup>

The treatise contains numerous historical references. By writing in this way about the organisation of past civilisations, Alberti aimed to justify the spatial stratification he planned for fifteenth-century urban inhabitants. Being well-read in Cicero and St Augustine, Alberti had analysed the society of his time and argued that the city space and its architecture should adequately represent its various groups of people.<sup>38</sup> He had unearthed ancient opinions, recorded mainly by Plutarch, and

had explored the way in which societies were 'divided' and organised.<sup>39</sup> In Alberti's interpretation, Aristotle's *Politics* argues pragmatically for the benefit of selecting the 'worthy common' people to serve the state, while Plato is mentioned in the context of the responsibility of those in power.<sup>40</sup> After a lengthy discussion, Alberti's conclusion on society and buildings is fairly segregationist: 'all the above are different parts of the state, and each should be designated a different type of building'.<sup>41</sup>

Although the principle of resemblance as the dominant episteme at the time would explain the sliding comparisons between the realm of philosophical ideas about society and the material world, the two realms had never been related in this direct manner before. Alberti collates and brings together elements previously held distinct.<sup>42</sup> In this

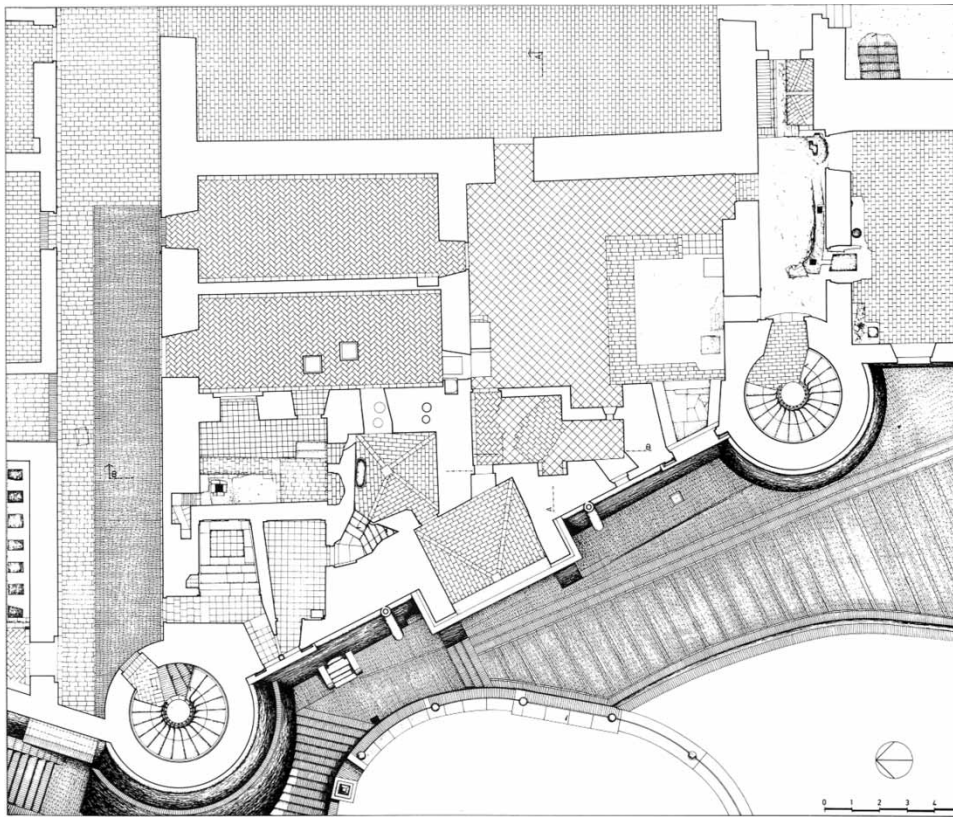


Figure 5. Detail of the plan of fortifications with towers in Urbino built by Laurana; the palace contains well-known works of art such as paintings by Piero della Francesca and the *studiolo* displaying the seven arts in intarsia (Archivio Zibaldone, courtesy *Limen Italia* - [www.limen.org](http://www.limen.org), and the Superintendency for the Environmental and Architectural Heritage, Ancona).

way he brought the world of ideas and the material realm into a direct dialogue.

Consequently, his book on the art of building is a treatise on architecture and the city, but is also a profoundly opinionated text. The book is innovative as it strives to dissociate its thought from the established arguments of the past, into a new realm.

Speaking on the phenomenological level, the writer addresses city life, where new realities have emerged, such as the circulation of foreign goods, exchange and the emergence of a new class of people.<sup>43</sup> In *De re aedificatoria's* openness to discussing all aspects of life, the arguments used are always both spatial and political.

It is possible to argue that Alberti had succeeded in putting his ideas into practice in the wider project of rebuilding the city of Rome at a time when the papacy was seeking stability. The development envisaged by Alberti included the relocation of the Pope's headquarters from the Lateran to the Vatican, the building of the new St Peter's, together with buildings and churches in the *Borgo*. His plan was ultimately completed, although it took several generations of architects and popes to see it through (Fig. 6).

### The various roles for the façade walls

In order to achieve the most suitable architectural form for the city Alberti proposed a new design strategy which on a concrete physical level could be described as a deployment of the walls and wall surfaces in a radically new way.

The main task of the external city walls remains to defend its citizens: a function that requires heavy fortifications with regularly positioned towers and a good strategic placement of the city overall. Excellent views that control the surrounding and approaching roads or the sea are essential.<sup>44</sup> Following this are recommendations about gates and roads. Alberti suggests that the roads should meander gently, so that they would appear longer, and therefore make the town appear larger in size. Buildings should all have façades to the streets so that citizens might keep an eye on visitors or potential enemies — 'if the enemy gains access, he will risk injury, his front and flank being exposed as much as his back.'<sup>45</sup>

Although Alberti initially distinguishes between the layout of the city for a tyrant or for a king, in his discussion this differentiation disappears at

times. He draws historical examples suggesting that the divided city (on several hills or with a river in between) has been proven to be more 'free of civil discord'. He argues for a protected core: for the important citizens, so that they do not mix with the others who might be 'of a nuisance'. Crucially and strategically, Alberti proposes an internal wall that would divide the city and protect rulers from the rebellion of their own people. This is poignantly described as:

This internal wall should be planned so as to touch every district of the town. As in all other city walls, so especially in this case, the construction must be robust and bold in all its details, and so high as to dominate the roofs of any private houses...<sup>46</sup>

In outlining the design for palaces, Alberti compares the public parts of the house such as the atrium or the salon to the public squares of the city: an analogy between the city and the house for which his work is well known. While he demonstrates interest in discussing plan he often comes back to the public aspects and the all-important façades.

It becomes evident that the appearance of the façades of the new edifices grew in significance, leading Alberti to introduce a decorative and hierarchical use of orders. With that in mind, Alberti reinstalls the usage of flattened columns—pilasters—most notably on the Palazzo Rucellai, in Florence.<sup>47</sup> Pilasters are effective as they give the appearance of columns and of the articulation of walls, whilst being merely ornamental. According to Alberti's rules of *decorum*, this ornate 'scripture on the wall' should observe aesthetic requirements as described by Vitruvius and as seen on ancient ruins, while depicting the social standing of its



Figure 6. The Vatican, aerial view: there is a strategic internal wall link between the walls of the papal palace and the Castel Sant' Angelo (photograph by 'Digital Globe', retrieved 4th May, 2011).

residents. As such it also veils and conceals the increased robustness of the structure of the external walls.<sup>48</sup>

The wall thus becomes the place which carries the regulating ornamentation which is embroidered upon it. In this manner Alberti's scholarly rhetoric

on decorum depends upon this overpowering regime of the wall surface. Once flattened and ordered, the surface sublimated within itself the moral discourse on decorum, and can no longer be detached from it. The final finishing of the wall surface is explained in detail. As such it is a weighty matter for Alberti and a source of pleasure in its own right.

This form of simulation and of architectural mimicry established as a set of design rules, shows us how the façade wall becomes a superimposition of aesthetic, social and military requirements. We can argue that through *De re aedificatoria*, its subsequent dissemination and related practice, the fifteenth-century architectural canon inaugurated this triple role of the façade wall.

These norms endured throughout the sixteenth century and onwards. The façades conceived within the logic of this canon became a model to be copied throughout European urban space.<sup>49</sup> During the seventeenth and eighteenth centuries this type of façade wall appeared whenever a building was to claim its significance, magnitude, certain aesthetic qualities linked to its status and a certain form of institutional power.

The newly introduced high and robust walls of the palaces for the wealthy have appropriated a military invention: the strong wall previously featuring as the perimeter city wall only. Consequently, the walls of palaces separated citizens within the same city in a way which was not the case in mediaeval times. This condition reinforced a new set of power relationships that kept some persons safe and within the dignity of aesthetically pleasing solid palaces, at the price of excluding others. In this

way the walls of Renaissance palaces became thicker and stronger than any walls of the wealthy before. Furthermore, by incorporating ancient decorative orders previously used only on temples, the new urban palaces appeared more elevated and of the essence.

Alberti's Palazzo Rucellai in Florence, built between 1446–7 and 1451 for a wealthy merchant and his family, was a palace of this kind (Fig. 7).<sup>50</sup> Its close predecessor, the Palazzo Medici built in the same city in 1444 by Michelozzo di Bartolommeo, shared some of the same characteristics, mainly its well-pronounced rusticated façade wall (Fig. 8). Whilst maintaining this aspect in common with Michelozzo's building, the Palazzo Rucellai's use of flattened pilasters and horizontal entablature is entirely new.<sup>51</sup> The Palazzo Piccolomini in Pienza, built after 1459 by Bernardo Rossellino, followed the same design principles as the Rucellai building (Fig. 9).<sup>52</sup> The later Palazzo Strozzi, also in Florence, begun by Benedetto da Maiano in 1489 and completed in 1538, had well-executed fully-rusticated walls but did not possess pilasters (Fig. 10). The use of thinner and flatter rusticated cladding combined with pilasters, as applied on the Rucellai palace, appears to be Alberti's own invention.

The employment of orders qualifies the Rucellai palace as a possible predecessor to Bramante's 1501–1510 Palazzo Caprini in the Vatican's *Borgo* (known as the 'House of Raphael': Fig. 11). Similar flat features in respect to the use of stone cladding and pilasters appear on the Palazzo Massimo in Rome designed 1532–36 by Baldassarre Peruzzi (Fig. 12). This palazzo, built after the destruction of the city in 1527, whose curved façade follows





5725. FIRENZE. Palazzo Rucellai, architettura di Leon Battista Alberti; secolo XV.

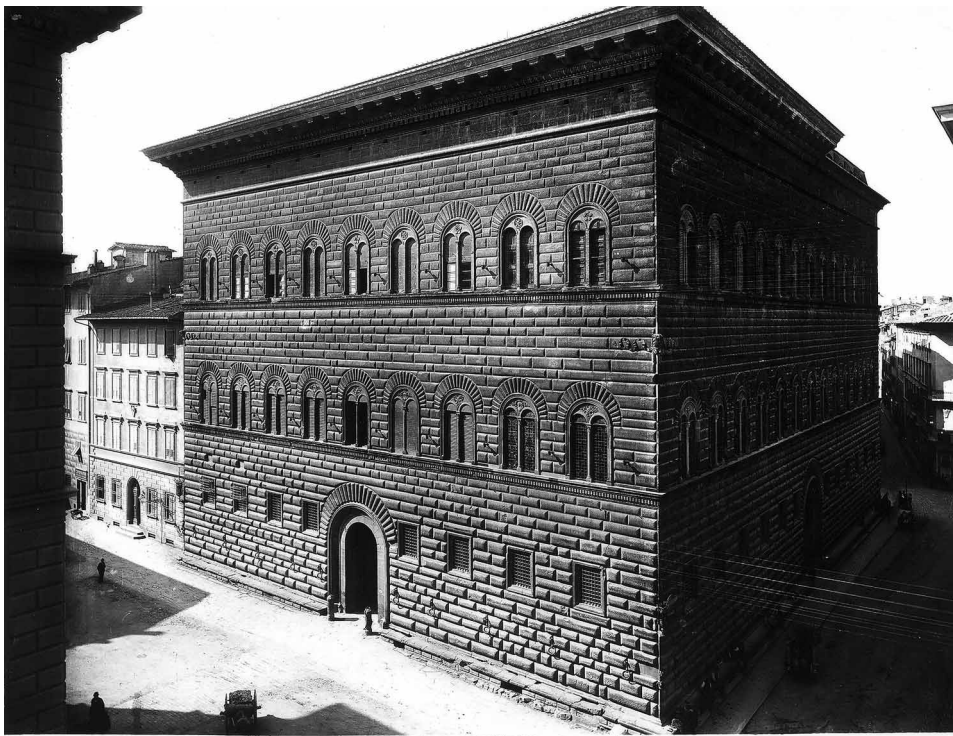
Figure 7. Palazzo Rucellai designed by Leon Battista Alberti 1440s–50s, Florence (photograph Fratelli Alinari Museum Collections—Malandrini Collection, Florence).

Figure 8. Palazzo Medici designed by Michelozzo di Bartolomeo Michelozzi, completed 1444, Florence (courtesy Limen Italia—[www.limen.org](http://www.limen.org)—photogrammetric relief edited by the Province of Florence).



Figure 9. Palazzo Piccolomini, Pienza, designed by Bernardo Rossellino after 1459 (photograph courtesy of Pierreci).





(Ed. Alinari) N.° 3018. FIRENZE — Palazzo Strozzi. (R. de Malino e Simone del Pollaiuolo detto Il Cronaca).

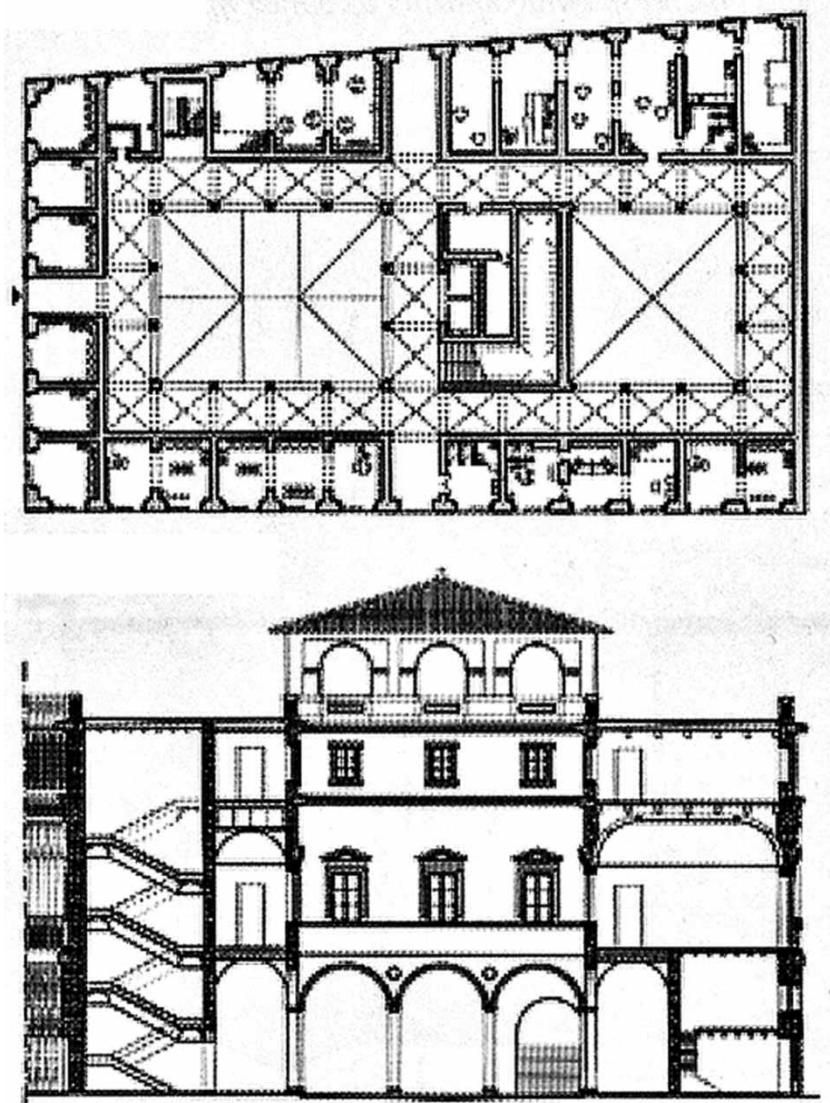
Figure 10. Palazzo Strozzi, designed by Benedetto da Maiano, 1489–1538, Florence (copyright Alinari Archives—Alinari Archive, Florence).

the perimeter of the ancient Roman stadium of Domitian (86 AD), is a fine example of sixteenth-century building practice and urban layering. Another instance in this series is the Palazzo Farnese, also in Rome, first designed in 1517 by Antonio da Sangallo the Younger, who was Bramante's assistant (Fig. 13). The design of the windows follows that of the Palazzo Caprini's, where the orders around the windows are articu-

lated by half-circular columns.<sup>53</sup> Outside these well-known examples, there are others such as the sixteenth-century Palazzo Malaspina in Ascoli Piceno, attributed to Cola dell'Amatrice, who had studied under Bramante and Raphael (Fig. 14).<sup>54</sup>

The new building type of the private town house (*palazzo*) thus emerged in the second half of the fifteenth and the first half of the sixteenth centuries, marking a new urban landscape. The city space was

Figure 11. Palazzo Caprini, also known as the 'House of Raphael', designed by Bramante, 1501–1510, the Vatican: reconstruction of the Caprini family's palace in Borgo Nuovo and Scossacavalli Square (courtesy, Limen Italia—[www.limen.org](http://www.limen.org); thesis completion by P. Cannata, M. Guerrieri, V. Simoncini, Facoltà di Architettura Roma Tre).



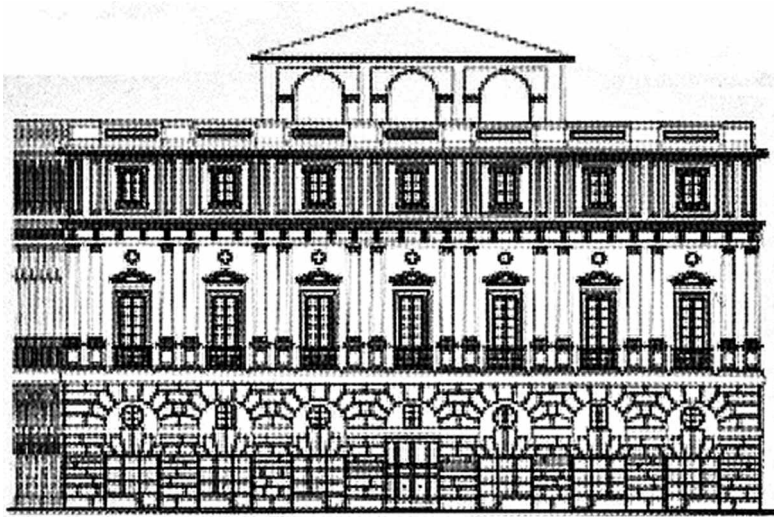


Figure 11. Continued.

converted: it became less organic, more strategic, and it actively deployed the play of simulacra on its façade surfaces that thus acquired a multiple role. The carefully practised attitude towards surveillance and the related strengthening of the masonry articulated the new lines of tension within the urban space.

### On *paries* and *muri*

The confirmation of this change in the practice of walling may be observed in the subsequent etymology of the related terms. The term *paries* had originally meant any wall both inner and outer, of a house or any building; while the term for the perimeter city wall had been *murus*. This usage and meanings were established in antiquity.<sup>55</sup> As such these two clearly distinct terms continued through the Middle Ages, appearing in Alberti's Latin manu-

script and in the first printed edition of *De re aedificatoria* published in 1485. Alberti mentions walls (*paries*) at the beginning of his treatise when he introduces the six main parts of the art of building.<sup>56</sup>

Later on he defines the wall (*paries*) as 'the wall (*parietam*) we shall term all that structure which rises from the ground upward in order to support the weight of the roof, or which acts as a screen to provide privacy for the interior voids of the building.'<sup>57</sup> Therefore Alberti meant both load-bearing and partitioning structures.

'*Paries*' in the plural as synecdoche also meant 'houses'<sup>58</sup>—houses within ancient and mediaeval cities were often understood as a sum total of *paries*—the residential edifices that sometimes shared party walls, often leaning upon each other and forming a joint urban tissue (see Figure 2 above).<sup>59</sup>

Figure 12. Palazzo Massimo alle Colonne, designed by Baldassarre Peruzzi 1532–36, Rome (copyright Alinari Archives—Alinari Archive, Florence).



(Ed. Alinari) P. I. N. 64II. ROMA - Palazzo Massimo delle Colonne. (Baldassarre Peruzzi.)

A very different structure was the outer city wall, *murus*. In its primary sense the term *murus* denotes a military structure: a perimeter wall built for defence.<sup>60</sup> This was its usage in antiquity and throughout the Middle Ages, and it appears as such in Alberti. The emerging practice and the related doctrine formulated in *De re aedificatoria* were the conditions that allowed this usage to change. As a consequence, the term began to be used for the outer walls of the buildings

within the city, starting with the palaces for the wealthy.

The English term *wall* is only apparently a different word to *murus*. It is an adoption from the Low-German *wal*, or a Saxon and Anglo-Frisian assimilation of the Latin *vallum*. Its first meaning is 'a rampart of earth, stone or other material constructed for defensive purposes'. In the sense in which it denotes defensive structure, the *wall* is therefore close to '*muri*' and distinct from '*paries*'.



Figure 13. Palazzo Farnese, Rome, first designed in 1517 by Antonio da Sangallo the Younger, later contributions by Michelangelo, Vignola and Giacomo della Porta (photograph courtesy of Myrabella).

In the dissemination of these terms, the ancient word for the walls of buildings, *'paries'*, that was in use in Alberti's original text written in Latin, had lost its primary meaning in the sixteenth century. The evidence for this is found in Cosimo Bartoli's (1565) edition of *L'Architettura di Leon Battista Alberti*, containing the Italian translation of Alberti's treatise, which no longer refers to the walls as *'paries'*, as the new meaning and usage became reserved solely for light internal partitions.<sup>61</sup> Alberti's original term *'paries'* in Bartoli's edition was replaced by the

Italian *'mura'*,<sup>62</sup> while in *De re aedificatoria's* subsequent translations in French and English, *'paries'* was replaced by *'les murs'*, and *'walls'* respectively.<sup>63</sup> The ancient term *'paries'*, acquired, from the sixteenth century onwards, a new usage in anatomy to denote the membranes of bodies, as may be seen in Vesalius's works (Fig. 15).<sup>64</sup>

Therefore, regarding the spatiality of *'paries'* and *'muri'*, we can conclude that the military *'structure'* that was previously the *'wall of the city'* moved inwards to become the *'wall of the house'*, whilst

Figure 14. Palazzo Malaspina, Ascoli Piceno, attributed to Cola dell'Amatrice, follower of Bramante, middle of the sixteenth century (photograph courtesy of the Marchesa Laura Revedin Malaspina).





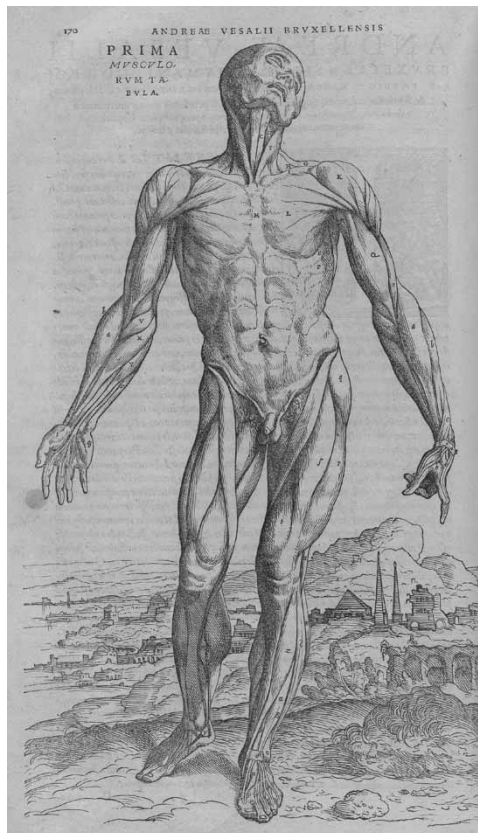


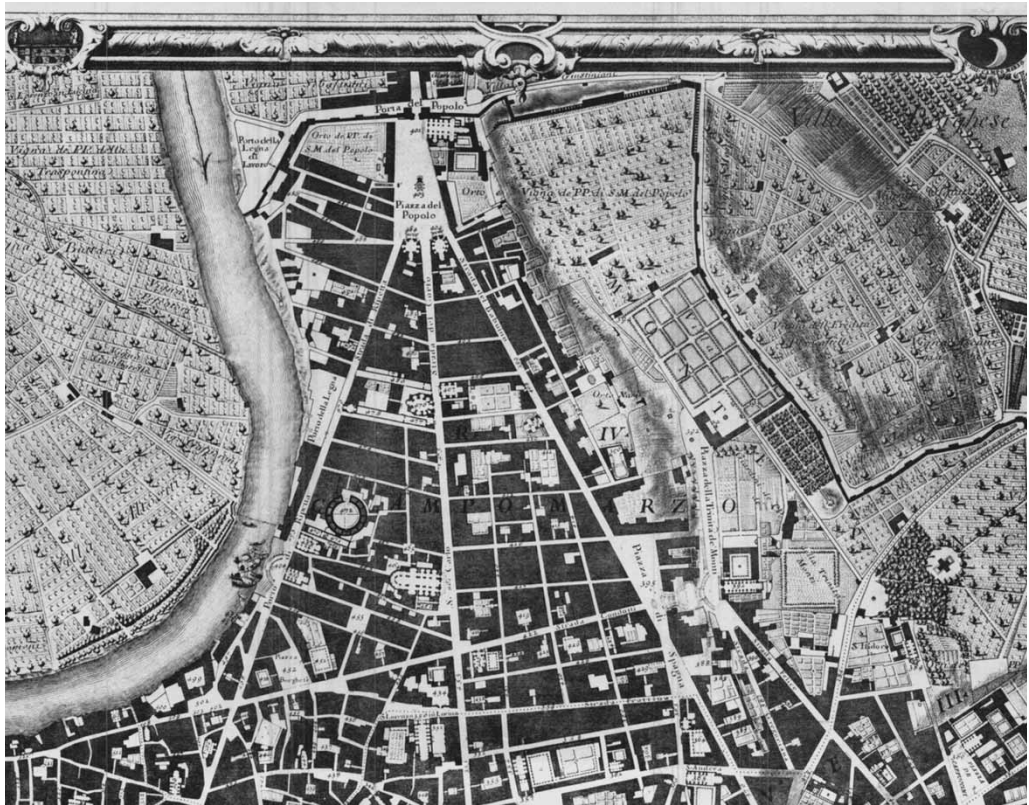
Figure 15. Vesalius's book *De humani corporis fabrica*, 1543 (*On the Fabric of the Human Body*), uses the term *paries*, or *parietes*, for body membranes; note the city in the background of this image (courtesy NLM US National Library of Medicine).

the 'walls of a house' moved inwards to mark the 'wall of the human body'. We can speculate about the effects of this spatial setup that thus provided a metaphysical delineation for a separate, 'walled', as it were, 'individual' identity. This concept became central in philosophical/theological debates throughout the sixteenth century.<sup>65</sup>

### Legacy of walling and simulacrum

Following the logic of this analysis of the nature of walling, it is possible to extend the argument and re-examine this legacy further. The fact that the post-*Quattrocento* palaces had façades that could be independent of their structure, and decorated with ancient ornaments, appears natural to

Figure 16. Rome, 'Tridente': observe the cuts by the two radial roads (contemporary via di Ripetta and via del Babuino) that were added in the second and the third decades of the sixteenth century to the central via del Corso (ancient via Lata, and later via Flaminia); these streets contain aligned walled palazzos that have been imposed on top of the organic ancient and mediaeval urban tissue (*La nuova topografia di Roma Comasco*, Giambattista Nolli, ca. 1692–1756, courtesy, Earth Sciences and Map Library, University of California, Berkeley).



a contemporary reader. Yet, historically speaking, this instance marks a leap of enormous significance for architecture. Whilst examples of comparable decoration have been linked to sacred buildings before and as such have become a distinct phenomenon with its own theorising and practice, this instance marks the moment when orders as simulacrum have entered into secular

architectural practice, as men developed the confidence to put the holy orders, previously reserved for gods, on the façades of their own houses.<sup>66</sup> The layered walls of simulacrum are now part of the physical mechanism of the delineation of urban space, in a new distribution of power and the emerging practice of urban power relationships.<sup>67</sup>



Figure 17. Modernism: transparency of the Bauhaus building by Walter Gropius, Dessau, 1929 (photograph courtesy of M\_H.DE).

We therefore remain mindful that the geometry of post-fifteenth-century walling has introduced cuts into the urban tissue and a set of obstacles within the previously more intimate public space of the city (Fig. 16). Additionally, the walls of the new palaces often appropriated whole portions of the city space and made it theirs. Thus a significant quantity of public area was cut off and made into defensible possessions of the privileged. This had unprecedentedly disquieting effects, as thick walls slashing through the city space undermined and displaced the idea of the united *civitas* envisaged by Alberti.<sup>68</sup> The wall is primarily an obstacle, a barrier and an impediment. The experience of a solid wall suggests impenetrability, opposition, exclusion and potentially confrontation. We have also explained how walls can generate paranoid effects. These qualities make walls a useful

instrument of power, an effective physical manifestation of authority and its supremacy-related representations. That is the reason why walls have subsequently been linked to institutions such as the prison, the hospital and the asylum.

### **Modernism, walling and concluding remarks**

Modernism struggled with the idea of impenetrable walls insofar as they collided with the openness and liveliness of the urban dynamism it aimed to promote. Although there were branches of Modernism that kept the solidity of walls (the Rationalism of the 1930s), the Modernists' focus has been on the open plan as the generator of unlocked spaces that were designed to be shared. If within this paradigm solid walls occurred, they were fragmented, open-ended and balanced by apertures such as strips of windows or oversized glazing.<sup>69</sup>

Figure 18. In this photograph Moholy-Nagy played with the transparency of the structure: László Moholy-Nagy, *Radio Tower Berlin*, 1928 (photograph courtesy of VG Bildkunst Bonn/Bauhaus Dessau).

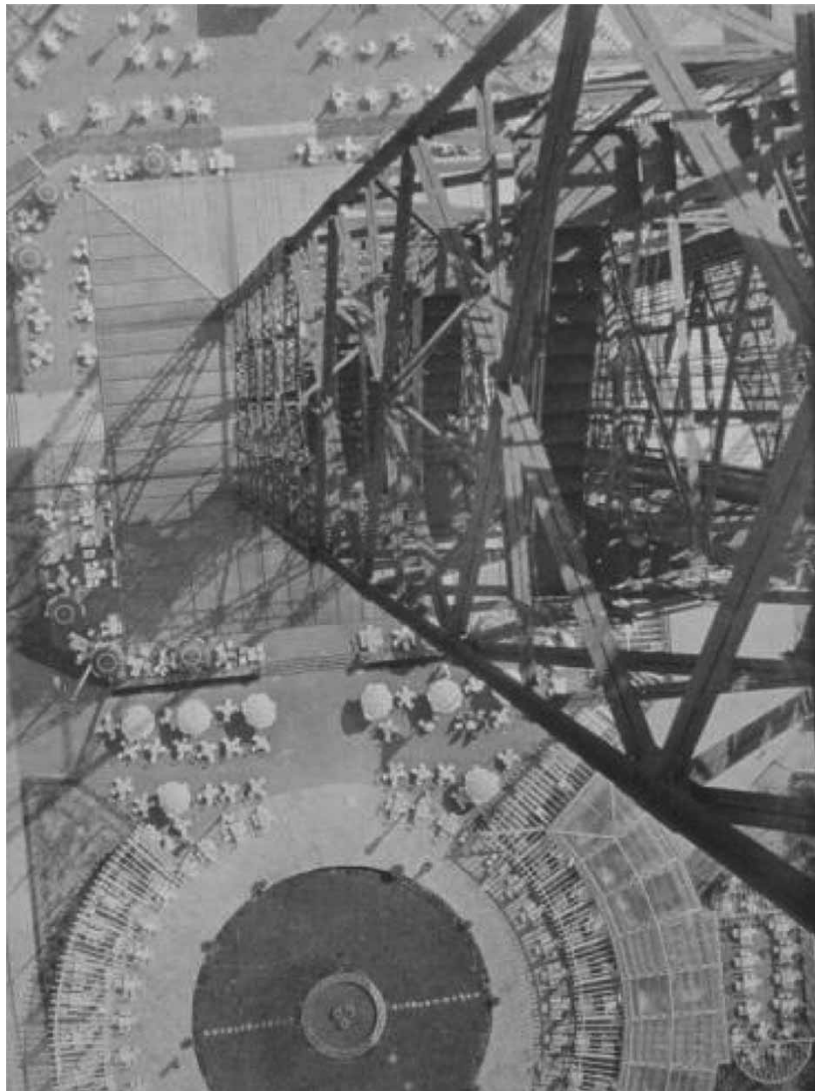




Figure 19. R. Piano and R. Rogers, Centre Georges Pompidou, Paris, 1976: note the transparency of the building towards the square (photograph by the Author).

Lustrous Modernist buildings, made mainly of glass, thus provided another kind of experience: that of transparency (Fig. 17). The effects of transparency became a *topos* of its own in contemporary architectural theory<sup>70</sup> as the achievements of Modernism in relation to transparency have been one of its noteworthy legacies (Fig. 18).<sup>71</sup> We will not address this subject here, other than to argue that the effects of transparency have disturbed and altered the long-lasting economy between enclosures and open spaces, and crucially the one between the private and the public space. Twentieth-century thinkers such as Walter Benjamin, and more recently Beatriz Colomina and Hilda Heynen, have discussed the consequences propounded by the modernist city. As the modern city tended to distance us from

an old and apparently 'authentic' experience of the world, it offered a new one, where events and feelings are mediated through transparency on various levels including the media.<sup>72</sup> Colomina has argued that architecture only becomes modern in its engagement with the media, thus displacing the traditional sense of space and of the subject.<sup>73</sup>

Glass walls in contemporary streets and squares, shop-fronts, transparent office spaces provide a qualitatively different and perhaps less paranoid urban experience (Fig. 19). At the same time these new demarcations are not apolitical, entirely benevolent or porous and certain boundaries can remain remarkably persistent.

Consequently, Modernism's drive for openness and transparency exemplified in clear glass walls

Figure 20. MVRDV  
Dutch Pavilion EXPO  
2000; contemporary  
creative transparency:  
inventive design on the  
subject of disappearing  
walls (photograph by  
Hans Werlemann,  
courtesy of MVRDV).



and open grounds has had only limited emancipatory effects. Innovative design practices have not succeeded in fully surpassing the outcomes of the traditional category of the wall boundary and its articulation of spaces. Particularly on the level of human consciousness, the long-lasting effects of walls remain. Although gravely challenged by the theory of late-twentieth-century critical thinkers and by some radical architectural practices, the crystallised and geologised effects of walls are still within the pattern of our minds. The fact that the idea of the wall is linked to linearity—one of the central metaphysical notions—renders wall effects persistent and secure.<sup>74</sup> As long as these metaphysical prerequisites continue to inform our psyche, certain forms of opposition will persist in being present, produced and experienced.

It is imperative for scholars and practitioners in both architecture and social sciences to continue to confront the antagonism and paranoia of walling and to nurture critical practices that can re-inscribe less divisive phenomena. Contemporary cities have reached a new trans-national level that necessitates a more thorough dissolution of old identities, territorialities and their effects. Various voices in philosophy and in architecture have argued that there is a need to set objects, images and information free, to achieve improved mobility and a better combinatory potential for all architectural production (Fig. 20).<sup>75</sup> The effects of these desired new conditions have been significantly less addressed, although the sought-after disintegration /reintegration of objects, images and information is already in the process.

As many instances of knowledge and practice have been left undetermined, we cannot remain

passive. Images are no longer anchored by representation, they float weightless in cyberspace and we have to be able to relate to them. Words and their definitions have ceased to be unequivocal, and meanings slip, but we still need to be able to communicate with them. Driven by increasing demand and the economy, buildings need to emerge; we have to form them and relate their shape, effects and character to the space they configure. The challenge is to take the new world of unfolding multitudes productively farther in a way in which one can subvert the old grid of representation, including the paranoid and ultimately war-mongering legacy of walling analysed here.

We face a potentially new relationship between the real and the imaginary. This condition has a creative capability that needs to be lived through in a way that will critically reposition the old practices. By that I mean that all possible networks of relationships could be radically reconsidered, including walls and walling. We might think afresh about the curious web of architectural walling in Europe as a networked exoskeleton that affects us all and therefore needs to be re-inscribed in an inclusive and unrestricted way, drawing from its creativity and revealing the pitfalls of its paranoid history.

### Acknowledgements

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Onians, the late Paul Hirst and to the readers of this paper who have all made very helpful comments and remarks, especially so to Sofia, Ranieri, Wendy, Ljubica, Murray, Peter and the two anonymous referees.

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1. Marco Polo tells Kubla Khan in Italo Calvino's *Invisible Cities*.
2. Alberti, Leon Battista, *De re aedificatoria* (1450); in English, *On the Art of Building in Ten Books*, trs, J. Rykwert, N. Leach and R. Tavernor (Cambridge, Mass. and London, The MIT Press, 1988): references are to this edition.
3. The thinkers and their texts include: Hirst, *Space and Power*; Deleuze & Guattari, *A Thousand Plateaus* and De Landa, *A Thousand Years of Nonlinear History*.
4. Affordances are 'action possibilities' hidden and buried in the environment, objectively measurable and independent of the individual's ability to recognise them. On affordance, see: Gibson, *The Ecological Approach to Visual Perception*; De Landa, 'On Gilles Deleuze', lecture at the European Graduate School, Switzerland, 2007, retrieved 15/05/2010, <http://www.youtube.com/watch?v=zqisvKSuA70> and Donald Norman, *The Design of Everyday Things*. Norman points out the relational character of this notion, and deploys it for interactive design. I am grateful to Stefan Kueppers and Michael Cytrynowicz for their clarifications about this notion within the *Agora-Cities for People* FP 5 project.
5. Lucien Febvre (1878–1956), *The Coming of the Book*.
6. Marc Bloch (1886–1944), the major work that is referred to here is *The Historian's Craft*.
7. Fernand Braudel (1902–1985) emphasised the role of large-scale socio-economic factors in the making and writing of history. He has more recently been considered to be one of the precursors of World Systems Theory, his main work being *The Mediterranean World in the Age of Philip II*.
8. Michel Foucault: major works, *Madness and Civilization*, *The Order of Things*, *The Birth of the Clinic*, *The Archaeology of Knowledge*.
9. Braudel, *Out of Italy*.
10. Despite appearances and the published discourse on this subject, such as the works mentioned above, this attitude is still prevalent. An earlier version of this paper was delivered at the International Conference entitled *Politics of Space*, 2009, held at the University of Brighton, where this subject was discussed. On this issue, see Foucault's essay 'Space, Knowledge and Power'. When pressed on the question about architecture, Foucault argued that 'it can never be inherent in the structure of things to guarantee the exercise of freedom. The guarantee of freedom is freedom': *The Foucault Reader*, p. 245.
11. Foucault, *Archaeology of Knowledge*, especially in the Introduction and the first chapter.
12. *Ibid.*, p. 38.
13. Hirst, *Space and Power*, p. 156.
14. Foucault, *The Archaeology of Knowledge*, *op. cit.*, p. 35. Discursive formations are able to span across traditional categories because they are underpinned by what Foucault identified as the *episteme*: the underlying configuration that determines and conditions all knowledge at any particular time.
15. De Landa, *A Thousand Years*, pp. 18–20.
16. De Landa called this historical narrative 'geological': because he was concerned to analyse the dynamics of matter, energy and non-linear causality at a level that humans share with rocks, mountains and built structure. De Landa, *A Thousand Years*, *op. cit.*, p. 20.
17. Even today we can see this domination in the statistics of global tourism. Set on just one of the many large

- peninsulas of the Asian continent, European cities still attract people from far-away continents.
18. Bloch, *The Historian's Craft* and Braudel, *The Mediterranean*, *op. cit.*
  19. Rossiaud, 'The City Dweller and Life in Cities and Towns', in *Medieval callings*, ed., Jacques Le Goff, trs., Lydia G. Cochrane, p. 140. On mediaeval cities, see: Jacques Le Goff, *Medieval Civilisation 400–1500*; Cesare De Seta and Jacques Le Goff, *La citta e le mura*; Alberti's *De re aedificatoria* (1450).
  20. The Franciscan Fra Paolino (1314), *Fagli mestiere a vivere con molti*, quoted in *Medieval callings*, ed., Le Goff, *op. cit.*, p. 141.
  21. De Landa, *A Thousand Years*, *op. cit.*, p. 19. A similar position has been argued by Braudel and McNeill, quoted by De Landa.
  22. *Ibid.*, p. 27.
  23. Sennett, *Flesh and Stone: The Body and the City In Western Civilization*; see also the article by Fontana-Giusti, 'Urban Strolling as a measure of quality'.
  24. Mumford, *The City in History*, p. 47.
  25. *Ibid.*, p. 47. It is indicative to compare the concept of 'crystallization' used here by Mumford to the process of crystallisation addressed by Deleuze and Guattari when discussing geologies and the expressive potential of the environment: Deleuze and Guattari, *A Thousand Plateaus*, *op. cit.*, pp. 49–50.
  26. Mumford describes the citadel as the 'little city': *The City in History*, *op. cit.*, pp. 121–122, a concept also mentioned on page 47. Furthermore, on the idea of citadel being conceived and built like a small town, see *De re aedificatoria*, V, 5 (1988), p. 125.
  27. Mumford, *The City in History*, *op. cit.*, p. 49.
  28. *Ibid.*, pp. 51–52.
  29. *Ibid.*
  30. *Ibid.*, p. 52.
  31. Soja, *Postmetropolis*, pp. 50–67: see the discussion on the city of Ur and what Soja calls the second urban revolution.
  32. See Derrida, 'The Supplement of Copula' and 'White Mythology: Metaphor in the Text of Philosophy', in *Margins of Philosophy*. One cannot fail to mention this link to Derrida, who had arrived at the same point by taking a different route: through the analysis of the philosophical texts of Plato and Aristotle. For these references I am indebted to the lectures delivered by Mark Cousins and Geoffrey Bennington at the Architectural Association, Histories and Theories, Graduate School, London. In respect to a different time period, one can also mention the principle of opposition as argued in the dialectics of both Hegel and Marx.
  33. I have in mind the works of Foucault, such as *Madness and Civilisation* – but also *The Birth of the Clinic, Discipline and Punish* and those by Althusser such as 'Ideology and Ideological State Apparatuses'. The recognition of Mumford's contribution to architectural and urban history and theory is rather haphazard. Architects do find some aspects of his analyses disturbing and therefore unattractive. During the 1960s and 1970s Mumford had a following amongst the students and professors at the School of Architecture, University of Belgrade. Bogdan Bogdanovic (1922–2010), a well-known architect and professor of architecture in this part of Europe, referred to Mumford in order to confront the dogmatism of the communist bureaucracy: see Bogdanovic, *Urbs & Logos*.
  34. Alberti, Leon Battista, *De re aedificatoria* (1450), in English, *op. cit.*: the three editors/translators furnished the 1988 English edition with an informative and scholarly introduction and a very useful glossary of key Albertian terms. This volume reflected and contributed to the renewed interest in Albertian studies during the 1980s and 1990s, especially

- within the English-speaking world. Mark Jarzombek's 1989 *On Leon Battista Alberti—his literary and aesthetic theories*, was part of this renewed attention. Jarzombek went beyond the usual stereotypes of the 'universal man' into investigating who Alberti was: a man of letters. Albertian scholarship today is spread between the disciplines of architecture, arts, history of science and Italian language studies. The late Cecil Grayson made a great contribution to the scholarship in preserving and editing a significant number of lesser-known works as well as providing the translation of the seminal treatise on painting. The large exhibition on Alberti in Mantua was accompanied by a publication, *Leon Battista Alberti*, containing thirty-two essays (by various authors, five by R. Tavernor) edited by Joseph Rykwert and Anne Engel (Rome, Olivetti /Electa, 1994). More recently, scholarship has been brought together under the auspices of Francesco Furlani who has led a collective effort within the Paris-based *Society of Leon Battista Alberti*. This society provides a database of Albertian scholarship. Within the UK, contributions have been made in PhDs such as those by Robert Tavernor, Tim Anstey and the Author. Tavernor's research on Alberti has been published in *On Alberti and the Art of Building* (New Haven and London, Yale University Press, 1988). Fontana-Giusti's study of Alberti's perspective, entitled 'The Cutting Surface: On the Painting as a Section, its Relationship to Writing and its Role in Understanding Space' is in *AA Files*, No.40 (London).
35. Filarete, *Trattato de architettura* (1965: English translation); Martini, *Trattati di architettura, ingegneria e arte militare* (originally c.1480): Martini was a Siense architect and engineer who had worked on projects in Siena, Naples and Cortona. He had succeeded Laurana as the architect of the fortifications for the Duke of Montefeltro's palace in Urbino.
  36. *Abbreviatore apostolico*: Alberti became an advisor to the papacy in 1432 with a post in the office where all papal documents were edited and written out for publication, one of the agencies through which the reformed Italian hand became a manner of writing throughout Europe: *De re aedificatoria* (1988), Introduction, p. xiii.
  37. Tommaso Parentucelli was Alberti's friend from their student days in Bologna.
  38. The key references that Alberti used in this context were Cicero's *De officiis* and St Augustine's *De civitate dei*.
  39. Alberti mentions: a) Theseus's division of people into those who interpret the laws and those who trade; b) Solon's distinction among the citizens on the basis of their property and riches; c) Athenians in general, who valued men of intellect above all, followed by ploughmen and artisans; d) Romans, who differentiated between patricians and plebeians, etc. *De re aedificatoria* (1988), pp. 92–93.
  40. Alberti writes, echoing arguments from the *Republic*: '... the divisions within society as a whole correspond to those between the different parts of the soul (*animi partibus*): one group governs the whole state using reason and wisdom (*ratio consilioque*), the second pursues injustice with arms (*armis iniurias*), the third affords and supplies sustenance for the previous two.' Alberti, *ibid.*, p. 93. The corresponding element of Plato's *Republic* is: IX.580e.
  41. Alberti, *ibid.*, p. 93.
  42. In its pragmatism the text departs from its Augustinian influences and premises that Alberti had initially implied, although he did not quote Augustine directly. On the Augustinian content in Alberti and in the project of Nicholas V, see Westfall, *In This Most Perfect Paradise*, and the Author's PhD, *op. cit.*
  43. The emergence of new professionals such as notaries who were trading their 'art of letters' is a source of irritation and disapproval by Alberti in *De commodis*

*litterarum atque incommotis*, an early personal text written 1428–1431 prior to *De pictura* and *De re aedificatoria*. See Fontana-Giusti's PhD, *op. cit.*, and its Appendix with translation (University of London).

44. Alberti, *De re aedificatoria*, *op. cit.*, IV, 3–4, pp. 100–103.
45. *Ibid.*, p. 107.
46. *Ibid.*, p. 118. Alberti explains that this design is appropriate for tyrants as they wish to have their population under control at all times. He also states that kings might have similar requirements in case of emergency and that the royal palaces should have gracefully decorated façades, whilst robust façades are better suited for a tyrant. The way in which these two roles and the respective recommendations are presented suggests a close proximity of their design where the ultimate differentiation is a matter of nuances rather than substance. *Ibid.*, pp. 121–122.
47. 'The pilaster is the logical transformation of the column for the decoration of a wall. It may be defined as a flattened column which has lost its three-dimensional and tactile value.' Wittkower, *Architectural Principles*, *op. cit.*, p. 36. Strangely, Alberti, who often takes pilasters for columns, argues that 'a row of columns is nothing other than a wall that has been pierced in several places by openings...' He clarifies the point by proposing an impossible definition: '...Indeed, when defining the column itself, it may not be wrong to describe it as a certain, solid, and continuous section of wall, which has been raised perpendicularly from the ground, up high, for the purpose of bearing the roof.' *De re aedificatoria*, *op. cit.*, p. 25.
48. Arguments in Book Seven show that Alberti sees architecture as a play of appearances, ie, as in a painting, and painting as a resemblance of the text: *De re aedificatoria*, *op. cit.*, V, pp. 188–189.
49. Other treatises, such as, for example, Serlio's, adopt this attitude too.
50. Bernardo Rossellino, Tuscan architect and sculptor (1409–1464), has been linked in part to the design of this house.
51. On Alberti's Palazzo Rucellai, its use of orders and on the innovation relating to the horizontal entablature (pointed out earlier by Wittkower), see Onians, *Bearers of Meaning*, pp. 182–185; a good historical account about building for Rucellai is Robert Tavernor's essay 'Giovanni Rucellai e il suo complesso architettonico' in *Leon Battista Alberti*, Rykwert and Engel, eds., *op. cit.*; more generally, F.W. Kent, *Household and Lineage in Renaissance Florence; the Family Life of the Capponi, Ginori, and Rucellai*.
52. It is believed that Alberti may have been involved in this project as he was in the employment of Pius II Piccolomini. This village, originally called Corsignano, the birthplace of Pope Pius, was redesigned around 1459 as Pius wanted to use it as a retreat. The design, which transformed its centre, included a palace for the pope, a church, a town hall and a building for the bishops. See R. Tavernor's essay 'Giovanni Rucellai...', *op. cit.*, and his *On Alberti and the Art of Building*.
53. At another level and as part of urban planning, a good example of military strategy being introduced into a city centre is the design of the Apostolic palace in the Vatican, protected and supported by means of secret passages and links to Castel St. Angelo for safeguard and escape. Its organisational structure is strikingly similar to Alberti's description of the palace/fortress for a tyrant. See *De re aedificatoria*, *op. cit.*, V, pp. 118–122.
54. The Palazzo Malaspina attributed to Cola dell'Amatrice. The top floor of the main street façade has a long loggia with columns which are in the shape of tree trunks, a form mentioned and approved by Alberti in certain circumstances.

55. See Glare, ed., *Oxford Latin Dictionary*, for *paries* and *murus*: this makes reference to the early usage in examples of ancient texts by Vergilius Maro (70–19 BC), *Aeneid* (2.442, 5.589) and *Georgica* (4.297) and by Iunius Moderatus Columella (1AD) in *De re rustica*. This usage continued up to the Quattrocento.
56. According to Alberti, the six main parts of the art of building are: locality (*regio*), area (*area*), compartition (*partitio*), wall (*paries*), roof (*tectum*) and opening (*apertio*): see *De re aedificatoria*, *op. cit.*, I.2. 8.
57. *Ibid.*, I, 8.
58. The phrase *intra parietes* signified in the privacy of one's own home. In a figurative sense Cicero used it in *Epistolae ad familiars*, 6.3.3: *nunc arma defunctum-que bello barbiton hic paries habebit*; *Oxford Latin Dictionary*, *op. cit.* This usage extended throughout the Middle Ages.
59. In the *Oxford Latin Dictionary*, *op. cit.*, we find that *parietines* or *parietinus* means: 'of or belonging to walls', 'fallen or ruined walls', and 'ruins', indicating its linkage with the ancient past. This is in tune with our thesis about the abandoned usage of *paries* that had meant house walls.
60. The term *murus* refers to a boundary wall: as such it appears in Q. Ennius, *Annales*, p. 419; L. Accius, *Trag.*, p. 348. Poetically, the plural *muri* could refer to a walled town or a settlement: *Oxford Latin Dictionary*, *op. cit.*
61. *L'Architettura di Leon Battista Alberti*, ed., Cosimo Bartoli (Venice, 1565). This edition is remarkable for its rich illustrations that have since accompanied subsequent editions of *De re aedificatoria*.
62. The six parts of architecture as translated by Cosimo Bartoli into Italian for *L'Architettura di Leon Battista Alberti*, 10, are (Alberti's Latin terms are in parentheses): '...La Regione (*regio*), il Sito (*area*), lo Scompartimento (*partitio*), le Mura (*paries*), le Coperture (*tectum*), and i Vani (*apertio*). We can therefore see how the term *paries* has been translated as *mura*.
63. French edition: Alberti, Leon Battista, *L'Architecture et art de bien bastir... Divisée en dix livres, traduits de Latin en Francois, par Deffunct Jean Martin*, etc. (Paris, Jacques Kerver, 1553).
64. In the *Oxford Latin Dictionary*, *op. cit.*, the term *paries* is further translated as a 'partition-wall', a structure enclosing, or forming the boundary of an animal (as in anatomy), a cavity of the body or of a shell, etc. Thus sixteenth-century references give it a clearly anatomical description, ie, *parietal*: belonging to or connected with the wall of a body or its cavities.
65. Parallels could be made between the new relationship to Christianity as exemplified by the reforms introduced by Martin Luther and his followers, developments in human sciences and developments in the architecture of the sixteenth century represented by building for private individuals palazzos and villas using formerly holy architectural orders.
66. Fontana-Giusti, PhD thesis, Chapter 5, in the following sections: 5.3. The walls as a fantasy of a military discourse; 5.4. Walling as politics; 5.5. Building for the republic (*res publica*), pp. 231–254.
67. Notably, it was in the late sixteenth century that the term *simulacrum*—meaning representation of another thing—entered the English language. The conventional understanding of the term *simulacrum* implied that its nature could be taken as problematic. The way in which Baudrillard approached this concept, could be seen as mournful: Baudrillard, Jean, *Simulations*. In spite of this there is another approach to *simulacrum*: known to and deployed by Shakespeare and formulated more recently by Gilles Deleuze. This attitude sees *simulacra* as a means by which accepted ideals or privileged positions could be 'challenged and overturned', thus opening new possibilities.

The simulacra are 'those systems in which different relates to different by *means of* difference itself. What is essential is that we find in these systems no *prior identity*, no *internal resemblance*' argued Deleuze: Deleuze, Gilles, *Difference and Repetition*, p. 69. In respect to William Shakespeare, the best-known simulacrum is the 'mousetrap' in *Hamlet*, Act 3, Scene 2, pp. 47–54; another kind of simulacrum is in *Titus Andronicus*, where the use of verse provides a sonic simulacrum: see *Titus Andronicus*, Russ McDonald, ed. (2000), Introduction, pp. xl–xli. The architectural designs for the *Globe* and the *Rose* theatres incorporated a number of features that could provide for the best play of simulacra (for example, for 'heaven' there was a hanging device above, for 'hell' below the stage; there were also devices to simulate public executions, hangings, etc.).

68. The reference is to St Augustine and to similar undertones as they appear in Alberti.  
69. This point is best exemplified in a Miesian type of plan.  
70. Transparency has been analysed as literal and phenomenological. I refer here to the definition as

understood by Gyorgy Kepes, quoted by Rowe and Slutzky: Rowe, *The Mathematics of the Ideal Villa*, *op. cit.*

71. Adrian Forty, *Words and Buildings*, *op. cit.*: Forty writes that architectural theory analyses transparency on at least three levels: literal, metaphorical or phenomenological transparency.  
72. Walter Benjamin, *Gesammelte Schriften*, vol. 8, p. 196, quoted in Heynen, *Architecture and Modernity*, *op. cit.*, p. 114. Benjamin wrote about the modernist architects: 'Giedion, Mendelsohn, Corbusier turned the abiding places of man into a transit area for every conceivable kind of energy and for waves of light and air'.  
73. Beatriz Colomina, *Privacy and Publicity, Modern Architecture as Mass Media*, *op. cit.*  
74. Catherine Ingraham, *Burdens of Linearity*, and Deleuze and Guattari, *On the Line*, *op. cit.*  
75. In philosophy, Deleuze and Guattari, *A Thousand Plateaus*, chapter 13; in architecture, AMOMA/Rem Koolhaas, *Content*. The layout and the structure of *Content* could be seen as an example of this openness.