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## Urban morphology and project consulting: a Berlin experience

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**Abstract.** *The city of Berlin has been engaged for over 20 years in a long-term project of repairs to the urban tissue that was dismembered during the war and by a half-century of political division. These projects have been undertaken with the greatest of care, on the basis of morphogenetic studies that have informed master plans and extremely detailed regulations. Without questioning the utility of these planning and building standards, there is a fear that they will hypertrophy and end up limiting the work of architectural and urban design to that of pure execution. Producing an inventory of the collective values that should bring lasting benefits to all the city's users is one thing, while making provision in the arrangement of the actual space for the compatibility of these ideals with the individual demands of the different contractors from case to case is another. This paper emphasizes the idea that the task of reconciliation requires a specific inventiveness. After a presentation of the conceptual relation between urban morphology and building typology which underlies the neo-rationalist approach to the urban project, the paper examines how this methodology applies to the resolution of problems by dissecting a proposal formulated for the international competition of 1996 for the completion of Pariser Platz facing the famous Brandenburg Gate.*

*Key Words:* Berlin, project methodology, urban analysis, building typology, quality control

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In an editorial entitled 'From explanation to prescription',<sup>1</sup> Jeremy W. R. Whitehand deplores the fact that academic research on urban transformation remains so limited in its exchanges with professionals engaged in design and planning. This issue is worth addressing given that urban morphology, as a specific knowledge of the physical structure of the city and of its transformation, has always claimed to inform action in some

way. In this sense, Saverio Muratori brought together a collection of urban monographs by various authors under the general title *Studi per una operante storia delle città* (Studies toward an operative history of cities).<sup>2</sup> In reality, opportunities for collaboration between specialists in urban morphology and architects or planners are not so rare as the small number of published accounts might lead one to believe. As soon as rumour

attributes to someone, correctly or incorrectly, some familiarity with the history of cities, it will not be long before that person is assailed with requests for consultation coming from architectural or urban planning firms, or even public authorities in charge of city planning. If the return flow of information in the direction of the academic world is but a trickle, this is perhaps due to the volatility of the 'products' of academic consultants which are most successful when created as a means to an end or as a contribution to a sequence guaranteeing the continuation of a process. This paper addresses one of the more general issues involving the practical application of urban morphology in Europe: how to respect the environment for which new edifices are conceived. Insofar as the author was himself involved as project consultant during the last competition organized for the completion of the reconstruction of Pariser Platz in Berlin, what follows is first and foremost a personal account of a practical experience. It could be criticized for lack of objectivity. However, we have known since Aristotle that there is no science of practice, because action is always engaged in the particular whereas science deals with generalities. At best, action may aspire to a certain wisdom or prudence. At worst it offers subjects for deliberation. The present essay will have attained its goal if it succeeds in clearly setting forth, in relation to a particular case, some of the risks of action, and raises for discussion some of the principles of caution with which it would be hoped the protagonists of urban development might arm themselves.

### **Urbanism and the urban project**

The range of actions that contribute to modifications of the physical structure of a city and thus susceptible to benefit from an exchange with research on urban morphology is extremely wide. Urbanism properly called, which ideally is concerned with the 'entirety' of a city, elaborating development plans on a grand scale as well as general municipal

codes, is not alone in synthesizing the collective process of the production of a city. The architect who plans a house, even a small house, can very well conceive of this action, outside of the simple satisfaction of his client's requirements, as a contribution to the construction of the city. He may then consult a specialist in the analysis of the urban fabric. When one envisages the prescriptive potential of urban morphology, there is scope for going beyond municipal norms and for confronting decision making in design problems on all levels.

Thus, there is no purely quantitative threshold, a scale of operations, that discriminates between architectural realization and urban realization. It is rather a qualitative criterion that permits us to know if an intervention in the city takes part in the process of the collective transformation of the city. Does the object to be inserted into the existing urban context express by its individual form the intention to overcome the chaotic, undifferentiated multiplicity of constructed forms – does it serve to unify or systematize this multiplicity to make it intelligible? Or, on the contrary, does it simply add to the actual sum of the parts a supplementary element, without any reference to the idea of unity? It is clear that those who do not think of their action as liable to have a qualitative impact on the city in the sense of a totality in perpetual recomposition will have very low expectations of co-operation with urban morphology.

### **Urban morphology and building typology**

The ways in which one item can enter into relations with a collection of existing objects and with them compose an ensemble endowed with its own meaning are numerous, and new ones are constantly being invented. When one thinks about urban space, one typically thematizes the general effect, given certain conditions, from the simultaneous presence of several architectural objects. Choice of construction materials, colour, dimensions, geometry and articulation of the floor plan and building masses, rhythm of

openings, rapport with plot boundaries, and relation to the ground, are some of the many decisions in the conception of the constructed intervention that allow one to express an opinion about the city (or the immediate urban context). For each of these choices to work, the planner can be induced to solicit the advice of various specialists before making the final decision.

The architect who wants to be involved in shaping the city, as distinct from this or that building in the city, confronts a problematic field on which the specialist in urban morphology can advise. This concerns what is called in technical language 'the spatial layout' or internal planning or, erroneously, the 'typology' of the building.<sup>3</sup> The architect generally begins by receiving an outline of the programme or brief, including a list of required floor areas quantified in terms of the room needed for certain activities and suggestions for the mutual relations that, ideally, it would be nice to have. The task of planning or 'distribution' (layout) consists precisely of resolving the problem of co-existing needs in space and of conveying the solution to the plan, while co-ordinating the three major components of all buildings: a structural system to divert loads into the ground, a system of spatial compartmentalization that differentiates zones of movement and zones of stability, and a system providing air and natural light. There is never only one possible layout in a given programme. The criteria by which one judges the quality or the performance of a solution are variable and are precisely what define so many ideologies of architecture. For functionalists, the need for the shortest route linking all components of the programme, the precisely 'functional', complementary nature of these in plan and in section, and the economy of the means to achieve the ends are the principal determining factors. Other schools have nuanced this reductive approach to architectural composition by emphasizing the codified meaning of forms (the symbolic dimension of architecture), or by denouncing the long-term counter-productivity of subordination of the

constructed form to an inevitably changing functional content.

In this chorus of opinions, which contributes to the evolution and enrichment of architectural and urbanistic culture, one voice in particular has made itself heard above the rest since the mid-1950s. It contests the idea that a layout can be decided for a projected building with any pertinence independently of an estimation of its impact in context. In fact, the pursuit of functional efficiency in the configuration of the plan of a single building can conflict with the maintenance of the contextually established values of collective usage. The quality of public space represents, among other things, one such value resulting from the generalized application, in a specific sector, of implicit rules of composition, non-binding from a legal standpoint, but nevertheless inscribed in custom. This school of thought, which recommends that the selection of a type of building to construct should be decided by integrating the urban criteria under consideration, is called various names by its recognized leaders.<sup>4</sup> Current historiography summarizes them under the category 'neo-rationalist'.<sup>5</sup> The methodological procedure common to all branches of the rationalist approach to design consists of linking the search for the form to be constructed to an idea of the development of the city.

### **The abstract nature of building typology manuals and planning standards**

The idea that the city offers collective values of usage that are not sanctioned by official building codes, and that one can very well disregard in all legality, causes some misgivings as to the efficiency of municipal norms. All of us in our own built environments can refer to familiar occurrences of architectural 'crimes' in perfect conformity with existing laws, indeed rooted in their strict application. Some will be tempted to guard against these malpractices by enacting more, or more precise, regulations. But in this there is the significant risk of transforming an architectural project into a

simple practical application and losing the collectivity of its creative contribution and critical reflections. Another approach is to recognize in municipal building norms and urban standards (without radically challenging their utility) an abstract character that requires correcting, with each application, by an examination of the common good that these institutional dispositions aim to promote.<sup>6</sup> Each opportunity to construct requires a phase of evaluation and arbitration of the interests at stake and it is for this reason that the construction of the city cannot be reduced to a routine application of a series of recipes. The shaping of the city needs to go through a phase of research and design that, stemming from the very fact that construction is always linked to particular circumstances, finds a complement of knowledge grounded in historical research.

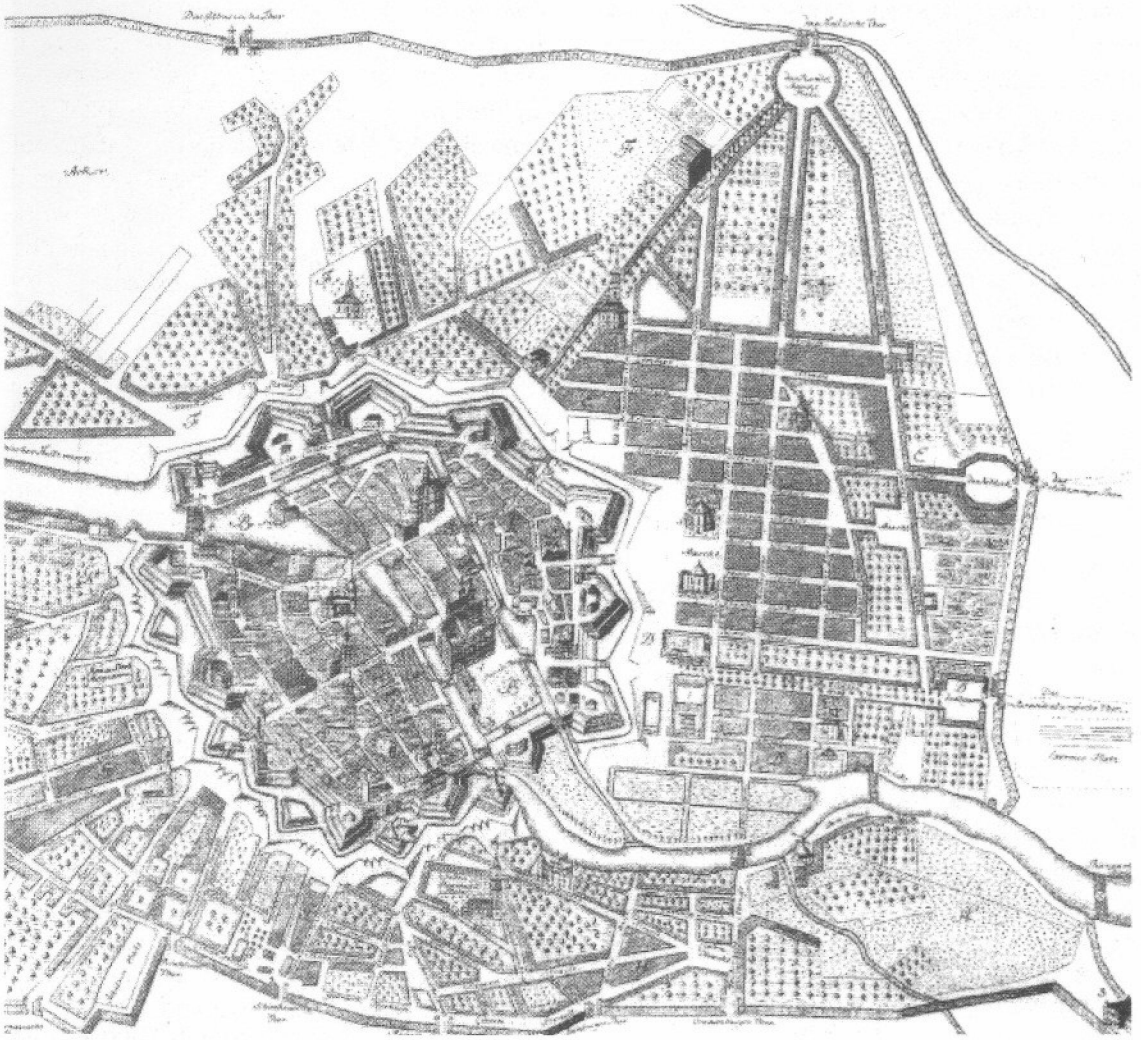
The same remarks apply to the manuals of layout technique, for example the famous Neufert, Carbonara etc.<sup>7</sup> Here, too, the proposed layout schemes, often based on exclusively functional criteria, have no value but as general exemplifications of the range of solutions capable of being developed to satisfy programmatic expectations. But these proposals remain abstract when considered outside of the urban or territorial context into which the edifice to be constructed must fit. Additionally, one must be wary of a highly dated aspect of typology manuals, profoundly anchored as they are in Enlightenment tradition: they spread the idea, perhaps unconsciously, of a Utopian society (along with its cities) organized definitively along scientific principles deduced from the observation of biological organisms and their vital functions.

### **Berlin: the critical reconstruction of Pariser Platz**

An example will help elucidate the theoretical and methodological issues sketched above. The city of Berlin has been engaged since the end of the 1970s in a vast campaign of critical repairs to the city (*kritische Stadt-*

*reparatur*) on the initiative of the architect Josef-Paul Kleihues, one of the principal leaders of the 'neo-rationalist' school of architecture in Germany. The goal of the campaign is to counter the state of dismemberment which Berlin has endured since the Second World War and to work patiently to reassemble the jigsaw by reconstructing the missing pieces. By advocating the *repair* of the city, Kleihues clearly intends that the new interventions should be subordinate to the objective of the recontextualization of the remaining fragments on the basis of a rigorous historical analysis of the relations which they had enjoyed before the catastrophe. This entails repairing the network of roadways and pre-war urban fabric, and reinstating former building lines. By *critical* repairs, Kleihues gives short shrift to all tendencies towards mimetic reconstruction of the former urban tissue (as was done in Warsaw with Canaletto's *vedute* as a control). He aims to promote a thoughtful reinterpretation of the city, separating lasting values from outdated aspects, as well as clarifying justifications for novel solutions. An interim report of this urban construction process was drawn up as part of the 'Internationale Bauausstellung' (IBA-Berlin) between 1979 and 1987.<sup>8</sup>

The fall of the Berlin wall in 1989 and the decision to transfer the administration of the reunified German state to Berlin gave a new dynamism to this project. Reunification allowed the complementary relation between the districts on the periphery and the historical centre, arbitrarily split apart by the wall, to be re-established. One of the major features of Berlin is the famous mall Unter den Linden. Its origins date to about 1647, when landscape improvements were made to the road linking the castle of the Prince Elector, situated in the urban fortifications, with his gardens and his hunting grounds, in the west. After 1674 this avenue became the axis of the first area of expansion outside the walls, the Dorotheenstadt, to which was added fifteen years later, at right angles towards the south, the second expansion called Friedrichstadt. In 1735, a general



**Figure 1.** Map of the royal residence and the city of Berlin, drawn by J.F. Walther and engraved on copper by G. Dusableau, 1737, reproduced from Kleinwachter-Jarnot and Schoen (eds), *op. cit.*, 6 (note 9). North is at the bottom of the map.

project to define the urban fringe west of these expanding areas and create a customs barrier resulted in the creation of a series of three majestic places providing access to the city, named after their shapes: the *Quarré* (square), today known as Pariser Platz, containing the Brandenburg Gate, at the far end of Unter den Linden; the *Octogon*, today Leipziger Platz, and the *Rondel* at the southern end of Friedrichstrasse (Figure 1). This former exterior limit to the baroque city came to coincide in large measure with the alignment of the wall in 1961 and the

vestiges spared the war-time bombings were sacrificed to 'secure' the new frontier between the East and the West (Figure 2). After 1989, recognizing the historic and symbolic importance unanimously attributed to this series of squares as spaces that articulated the passage between the baroque urbanization and its surrounding parks (despite the latter being partially replaced during the nineteenth century by new suburbs), the municipal administration decided to undertake the reconstruction of these spaces.

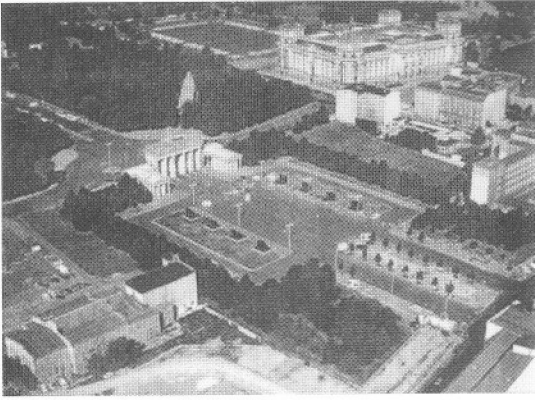


Figure 2. Pariser Platz, Berlin: view from the south-east, as it was in 1991, reproduced from Machleidt, *op. cit.*, 9 (note 9).

### Special regulations and practical procedures

To ensure a successful critical reconstruction of Pariser Platz, which, in light of its proximity to the renewed Reichstag, was intended to become the principal representative space of the new capital, including a strong showing of embassies and prestigious institutions, the authorities undertook particularly meticulous preparatory studies.<sup>9</sup> These reports, completed in June 1995, resulted in a masterplan combined with very precise schedules of conditions ensuring a reconstruction as suggestive as possible of what the original space of the square had been, dominated by the imposing Brandenburg Gate (Figure 3), without, however, impeding the introduction of contemporary architectural expression. The regulations designed to control the quality of the square's reconstruction are an expression of four aspects: use zoning, volume and space, circulation, and landscape.

The use zoning concept is one of mixed uses. The American, British, and French embassies, the Hotel Adlon, and the Academy of Fine Arts, which bordered the square before the war, should be able to return, complemented by other functional contemporary elements, drawn from the service sector, restaurants, culture, and communication. Twenty per cent of the total

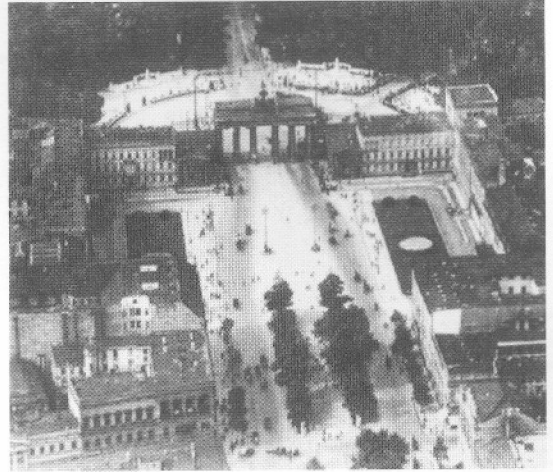
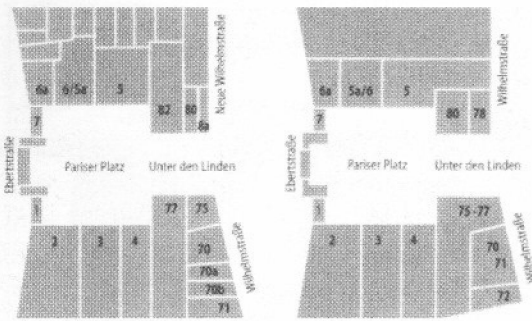


Figure 3. Pariser Platz and Brandenburg Gate, Berlin: aerial view, c. 1915, reproduced from Strecker and Hoffmann-Axthelm, *op. cit.*, 16 (note 9).

floor area must be reserved for habitation. The principal means of obtaining this variety of uses around the square, and thus preventing extensive development of one type of activity to the detriment of others, was made clear by dividing the area into a series of plots (Figure 4) and by requiring the design of multi-functional buildings. In respect of volume and space, Pariser Platz is to be re-established in its former configuration as a gateway into the city, dominated by a monumental gate and edged by a continuous wall of buildings. The pre-war layout of the urban fabric with its alignment of façades along the same frontage, and the complete filling in of street-block angles, had a constraining character: the height limits were differentiated from case to case so as to ensure the dominance of the Brandenburg Gate and at the same time allow maximum building coverage. In respect of circulation, there was restriction of the right to pass through the gate, but with an exception for public transportation, taxis and bicycles. Private cars were diverted to the outer loops in the northern and southern sectors, and a pedestrian zone was created on the sides of the square. In the matter of landscape, there was a faithful re-establishment of the former locations of the planting and the monumental fountains that



**Figure 4. Pariser Platz, Berlin: plot boundaries in 1936 (left) and the plot mosaic re-established by the masterplan of 1995 (right). The plot pertaining to the competition, opened in June 1995 by the developer ABG, is number 80. Reproduced from Kleinwachter-Jarnot and Schoen (eds), *op. cit.*, 14-15 (note 9).**

embellished the square.

After innumerable controversies, which it is not possible to analyse here and which I do not want to needlessly re-ignite, four minimal rules governing the architectural treatment of new construction were integrated into the plan. First, with an eye to conferring on the public space the closed nature it had known in the past, the buildings had to respect a principle of contiguity and a proportion of openings (windows and doors) in the façade that did not exceed 50 per cent of the façade's surface area. Secondly, to highlight the effect of the caesura produced by the Brandenburg Gate on the Tiergarten side, the maximum height of the buildings decreased by successive steps as the monument was approached (16.7m for the pavilions adjoining the gate; 20m for the edifices that surround Pariser Platz; 22m at the cornice and a maximum roof height of 30m for the buildings backing on to the former and located on the edge of Unter den Linden (Figure 5). Thirdly, to harmonize with the Brandenburg Gate, the principal monument of the square, the new edifices surrounding the square were requested to respect the dimensions and proportions of its classical architectural order: the base was to have a height of 5.4-6m, a cornice-line at

16.7m and the possibility of including an attic floor up to a height of 20m. The buildings bordering Unter den Linden were required to show a supplementary horizontal articulation which clearly isolated the last level situated underneath the cornice or the roof edge, limited to a height of 22m. The maximum height of the roof ridge was 30m. Fourthly, with the same objective as the preceding rule, the façades were to be covered in stone or roughcast, with a matt appearance, in a colour range between ochre, yellow, and grey.<sup>10</sup>

Having instituted so many precise regulations to guarantee the quality of the final result, it would have been logical to have left the field open to initiatives from investors: to have allowed the 'ordinary' processes of urban production to be set in motion. But the objective of the critical reconstruction was not the faithful reconstitution of a past image of an urban space or the promotion of run-of-the-mill architecture. It was about reconciling contemporary architectural creation with respect for urban historical continuity: it entailed innovation in the architectural domain without forgetting the requirements inherent in the traditional city, with its plot system and its regulated building lines. Thus, to guarantee that the architectural projects were representative of the best of contemporary architecture, the selection of architects with whom to entrust the construction of the buildings bordering Pariser Platz was made by resorting as much as possible to competitions (the countries owning an embassy having free choice in their architect). Upon the completion of all the projects one would see aligning this square the 'top ten' of German and international architecture of the 1990s: Josef Paul Kleihues, Moor Ruble Yudell & Gruen Associates, Frank O. Gehry, Behnisch & Partner, Michael Wilford, Gustav Peichl & Partner, Hans Kollhoff, Laurids et Manfred Ortner, Christian de Portzamparc, Meinhard von Gerkan, and Bernhard Winking.

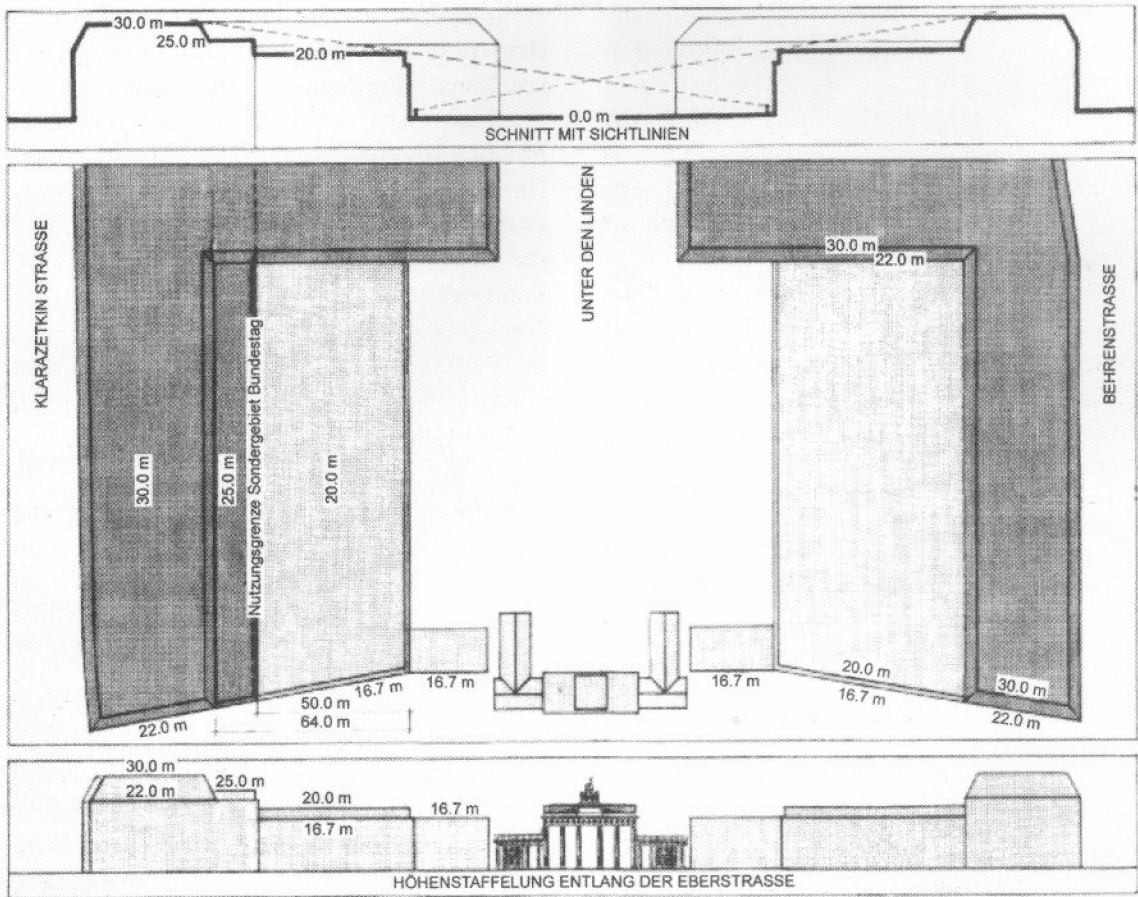


Figure 5. Pariser Platz, Berlin: differentiation of the height limits foreseen by the regulations in the reconstruction plan. Reproduced from Kleinwachter-Jarnot and Schoen (eds), *op. cit.*, 29 (note 9).

### Criteria of architectural performance

The solicitation of architects of international renown for the design of edifices in Pariser Platz was motivated, on the one hand, by the fact that this area of embassies needed to allow the countries represented to present their best self-image. But this call addressed to the best creative minds of contemporary architecture, chosen mostly on the basis of international competitions, was also officially justified by the high quality required at this location and the complexity of the problems that needed to be mastered. Sceptics might say that the choice of protagonists was over-determined by the interests of urban marketing and the impact of the mass media – strangers to the cause of architecture and urban design. But it is precisely here that the

heart of the debate lies: in the need for calculated, prudent action. Does architectural creation have any real importance for a city? Does it solve any serious problems or is it merely frivolous decoration? By encouraging architectural innovation, do we improve the quality of the urban space or, on the contrary, do we run the risk of endangering it? How do we verify that contemporary architecture has really shown itself to be creative in its conceptions of buildings around the Pariser Platz? How can we verify, and by what means of comparison, that the projects selected during the competitions were indeed the best?

To understand why the programme for the critical reconstruction of the city engaged in by the Berlin authorities made it necessary to have a complementary system of rather

To understand why the programme for the critical reconstruction of the city engaged in by the Berlin authorities made it necessary to have a complementary system of rather constraining rules and the recruitment of a host of highly competent professionals, one must understand that the growth of collective expectations, relative to the quality of urban amenities, accelerated the obsolescence of the current methods of constructing a city. In other words, the better people know *what* they want, the less well they know *how* to attain the result, precisely because the way people used to do things is no longer satisfactory and they are keen on finding new ideas and techniques for building. In the case of Pariser Platz, the citizens of Berlin knew that they wanted to resuscitate an urban space that had disappeared a little over a half-century ago, and that to obtain this result it was necessary to modify the present way of construction without reverting to anachronistic building methods. But no one knew exactly *how* to reorganize the means of contemporary architecture toward this goal.

The specifications put forward for the reconstruction of Pariser Platz thus determined certain qualities of the desired result without indicating how they were to be achieved. It is for this reason that the architectural endeavour involving this type of challenge cannot be thought of simply as a piece of work to be carried out: it bears an *indispensable* creative component. For example, the requirement for solid façades, covered in natural stone or with a roughcast finish with a predominance of solid expanse over open spaces, articulated at a time when no one builds with freestone for technical, economic and cultural reasons, confronts contemporary architecture and its financial partners with a serious problem in as much as sincerity in construction matters to them. At the same time, constructing from scratch a series of contiguous buildings with wings on courtyards on a fragmented plot pattern is very problematic at a time when, for reasons of public hygiene and comfort, we prefer a more airy building plan. Such problems are not insoluble, but it is impossible to carry out

contemporary architecture without perceiving these problems and without trying to propose solutions to them. The creativity in contemporary architecture is measured precisely by the capacity that it demonstrates for providing elements of solutions. It can occur, however, that a particularly gifted architect succeeds in proving that the required measures to guarantee the final quality lack coherence or go beyond what is necessary. A polemic arose during the rule-preparation phase concerning the regulations about material (natural stone): in the public debate, the architects, notably Günther Behnisch, strongly defended the liberty of the architect to choose his or her own material, by demonstrating that the creation of a certain spatial effect is not closely tied to a specific material. It is not absolutely necessary to use stone to create the impression of a massive and imposing façade; a glass façade may have the same effect, if it is conceived by an architect who has a knowledge of aesthetics and knows how to manipulate glass (the *Galerie Lafayette* constructed by Jean Nouvel along *Friedrichstrasse* is convincing proof).

Thus it is clear that there is a dialectical relation between the norm and the response to the norm. The norm inspires research into new practical means but the invention of new means necessarily challenges the rigidity of the norm, to such an extent that norms and means are obliged to evolve. From this standpoint, architectural creation carries with it a responsibility: that of not allowing the persistence of norms that lead to results that do not satisfy our present cultural values. In this respect, architecture, as the creative pursuit of the best methods to satisfy collective expectations and as a critical examination of the foundations of such objectives, may claim the status of rational activity, even if, in practice, it cannot claim to be a science.<sup>11</sup> Presenting the very concrete difficulties encountered during the preparation of a proposal for a building on Pariser Platz will allow the demonstration of these general considerations.

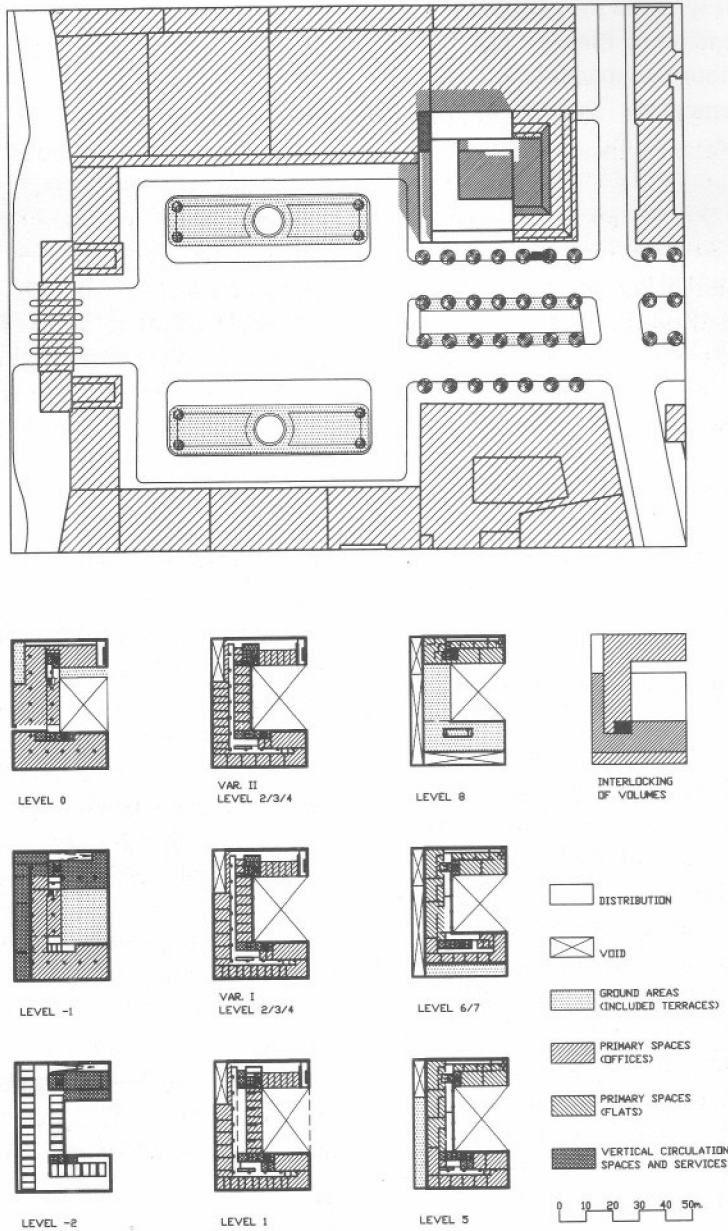


Figure 6. Bétrix & Consolascio's project for a commercial and residential building at Pariser Platz/Unter den Linden 80, Berlin: situation and floor layout (redrawn by Jérôme Zufferey, Bex CH).

### Practical problems in the conception of a building fronting Pariser Platz

After all the principal plots fronting Pariser Platz were distributed, there remained one last corner parcel to allot, situated on the north-east side where Unter den Linden opens into the square, positioned symmetrically in relation to the famous Hotel Adlon, under

construction in the south-east angle. In June 1996, the Swiss firm Bétrix & Consolascio with Erich Maier, headquartered in Erlenbach near Zurich,<sup>12</sup> was invited to submit a proposal for this final competition,<sup>13</sup> and they wished me to participate as a consultant because of the delicate nature of the contextual setting of the intervention.

The established programme requirements

called for a mixture of commercial areas (shops and restaurants), office floors and luxury flats to be accommodated in a building of seven stories, not including two underground levels, fully exploiting the maximum plot ratio of 5:1<sup>14</sup> for a building site of 1,759m<sup>2</sup>. One difficulty with the plot (Figures 4 and 6) was that the projected building would be backed to the north by a blind wall, attached on the east, along Unter den Linden, to a party wall with an edifice (Haus Merkur) of a height of 23.5m measured from the acroteria and, to the west in the corner of the square, attached to the French embassy whose height taken from the cornice was projected at 20m, following the example of the building previously occupying the same site.

### Building a compromise as a creative task

Given the limitations imposed by the presence of blind walls on three sides of the plot and its small size, the principal problem to solve when determining the internal planning of the building concerned reconciling a high density (maximum rentable space) with the need for luxury flats to have good views and natural lighting. Once the street side was occupied, it would be necessary to create important and useful areas overlooking the courtyard. In the nineteenth century, people were satisfied with hierarchical rental offers, inherent in the principle of social segregation.<sup>15</sup> The middle floors were reserved for the wealthy classes; the lower classes or the servants shared the lodgings situated in the garrets (at a time when lifts had not been invented), the humid basements, or the obscure wings at the back of the courtyard.

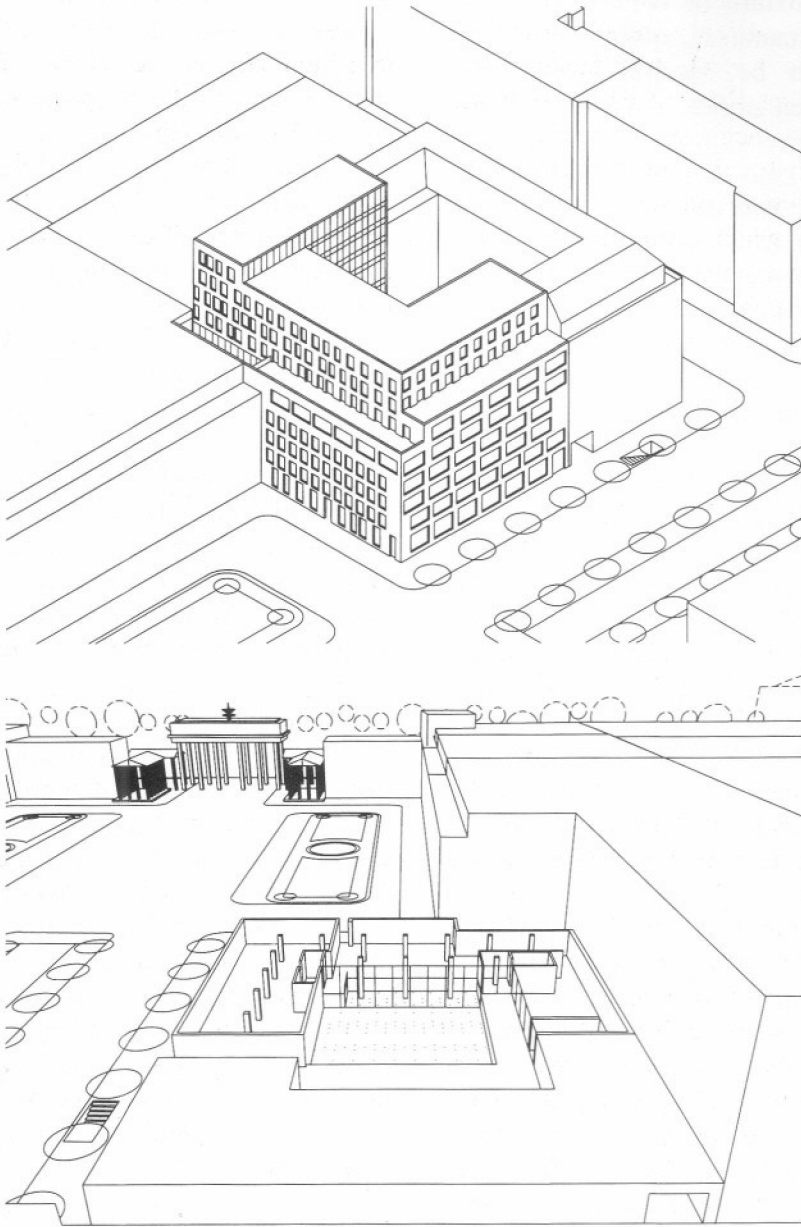
If we want to preserve or, after catastrophic destruction, rebuild the closed urban spaces typical of the pre-industrial era (defined by a continuous building line), particularly after a century of urban reforms have tirelessly aimed to make an open form of free standing blocks the rule and abolish courtyards and 'corridor streets' by invoking the legitimate criteria of public health and

social justice, we must show ourselves capable of updating these forms, condemned by progress, with elements of contemporary comfort. To say the same thing in the terminology of Gianfranco Caniggia, we need to invent a 'synchronic variant' of the 'leading type' of today, embodying the principle that each and every person has the right to correct housing but at the same time is capable of tolerating, with a minimum of inconvenience, the diminution in performance imposed by the conditions inherent in the urban fabric.<sup>16</sup> Of course, the search for compromise makes sense only so long as the collective use values preserved in this way compensate for the concessions required at the level of the habitability of the building concerned. In the present case, we wanted to conceive of a type of building in which the contrasts in location would be reduced to a minimum and in which the building overlooking the courtyard would be as integrated as possible into the main body of the building facing the street.

To accomplish this, we imagined a bipartite planimetric shape created from the dovetailing of two masses bent at right angles occupying equivalent surface areas, one in the form of an 'L', on the road, the other in the form of a 'T' on the court (Figure 6: interlocking of volumes). This method of enveloping the body of one building in the other neutralizes the conventional image of a main building completed by an annex.

### Embodying a plan idea in a structural system

In order to make this governing feature as comprehensive as possible, we carried it through to the structural form by varying the constructed depths and by conferring a quasi-sculptural presence to the intermediate supports. Furthermore, the façades were differentiated by putting to good use suggestions for the reform of the housing within street blocks illustrated by Ildefonso Cerdà at the time of the realization of the *ensanche* in Barcelona after 1859.<sup>17</sup> For the public space of Pariser Platz and Unter den



**Figure 7. Bétrix & Consolascio's project for a commercial and residential building at Pariser Platz/Unter den Linden 80, Berlin: perspective view of the south-east corner of the building and section of an axonometric projection of the structure (redrawn by Jérôme Zufferey, Bex CH).**

Linden, where the master plan for the quarter stipulated an accentuated character to walls, we responded with load-bearing façades in solid construction insulated on the interior. We decided to extend this feature to the third façade of the 'L'-shaped building, facing the courtyard to the north, in order to reinforce the constructive coherence and to avoid a

Potemkin effect. In contrast, in the north-west angle of the courtyard, we wanted a lightweight curtain wall, open to the private space of the courtyard in order to maximize daylighting. In this way we unified the two wings of the 'Γ'-shaped building and avoided the old-fashioned stigma attached to the courtyard annexes (Figure 7). The decision

to insulate the building from within rather than by means of an exterior insulation covered over by a protective facing, even were it to be fine slabs of cramped stone, endeavoured to achieve a principle of sincerity in construction little respected in recent architectural productions in Berlin. In fact, in this city, which claims an attachment to an essentially mineral urban image (recall the famous city portrait established in 1930 by Werner Hegemann under the title *Das steinerne Berlin* (Stony Berlin)),<sup>18</sup> it has become common practice to clad buildings with open-jointed, thin squares of stone without any structural function – a practice that makes the building resemble, in the best of cases, a frail house of cards. It was essential for us that the stone facing should be applied directly to the concrete and that the joints between the elements should allow people to see the effective stacking up of solid wall (piers) and slabs. Only under these conditions would the balanced play of void and solid on the façade, as required by the municipal codes in the perimeter of the old baroque centre, reveal a specific manner of construction.

The distribution of functions and the handling of circulation were subordinated to the governing bipartite planimetric shape with fluid transitions at the corners: the flats (20 per cent of the net floor area) were concentrated in the 'Γ'-shaped part, beginning at level five (Figure 6), while retail and offices occupied the 'L'-shaped building and the lower levels of the 'Γ'-shaped building, little suited for living quarters.

### **The form and use of superstructures**

To a surprising extent, the attics of buildings in Berlin generally house service rooms (heating, ventilating, air conditioning, laundry rooms) even though they are bathed in sunlight and have wide-open views overlooking their surroundings. Here, facing Pariser Platz with the Tiergarten in the background, it would have been paradoxical to concede the highest level of the building to services and to consign lodgings to the

interior of the block. Furthermore, as long as it was necessary to resolve the difficult transition between the height of the cornices, fixed at 20m on the periphery of the square and 23.5m along the Unter den Linden, we were glad to have the unusual opportunity to play with the upper limits of the superstructure. Thus, by setting back, in ascending order, the upper levels of the building, we managed not only to link the cornices as required in the master plan but also to provide a certain number of well-oriented flats with terraces in the space traditionally taken by the attic. This lively handling of the skyline above the smooth horizontal line of the cornice around Pariser Platz conferred a new legitimacy on the arrangement of the belvederes which rose from the tops of many former buildings situated between Pariser Platz and the Tiergarten. The desire to increase the attractiveness of the flats by placing them in the upper floors of the building brought us to a problem which, unfortunately, we could not resolve to our satisfaction owing to the tight contest deadlines. According to a rule in the Berlin municipal construction codes, as soon as a building goes over a height of 22m, it enters into the category of a high-rise building for which additional safety standards in case of fire are required. Notably, the codes require each flat to have access to two staircases. If one wants to configure the flats to have a dual orientation, as is preferable when aiming at luxury, and at the same time guarantee access to a corridor having two escape routes, one is almost obliged to create maisonettes. Had we had enough time, we would have chosen to pursue this design to perfect our proposal.

### **The façade as the external reflection of the internal spatial layout**

Another conflict to solve at the level of the internal circulation system concerned reconciling the flexibility requirements requested by the developers and the desire of the urbanists to surround the place with volumes of massive allure, with moderately

windowed façades covered in stone. In effect, the uncertain nature of the real-estate market in Berlin impels investors to construct buildings with as few limitations as possible on their internal organization. The same floor should be able to accommodate just as easily the entire range of offices required by a flourishing business as a series of small offices rented to different tenants or be converted into flats if there is an oversupply of commercial space. This characteristic of the commission favours the production of modular buildings in which one can easily compartmentalize space by adding or subtracting repetitive bays. The exterior expression of this kind of building is invariably a uniformly reticulated façade which we judged incompatible with the expected re-establishment of the closed spatiality of the former baroque square, surrounded by buildings of outstanding quality. Without attempting to differentiate the levels by a functional content which they might not have for very long, we wanted to express the versatility of the building by subordinating the dimensions and the distribution of the openings to two superposed modular grids of 1.2 and 1.5m. On the façade, this principle was expressed by windows of varying widths and the possibility of staggering their vertical alignment. The advantage acquired for the sculptural presence of the building, reinforced by its monolithic allure, was not purely formal. In the interior it favoured a more supple arrangement of space – more differentiated and less rigidly serial – than is common in the majority of office buildings, in our case having the possibility of varying the width of the bays by multiples of one or the other module or by their combination (Figure 8).

### **Plot boundaries and courtyards**

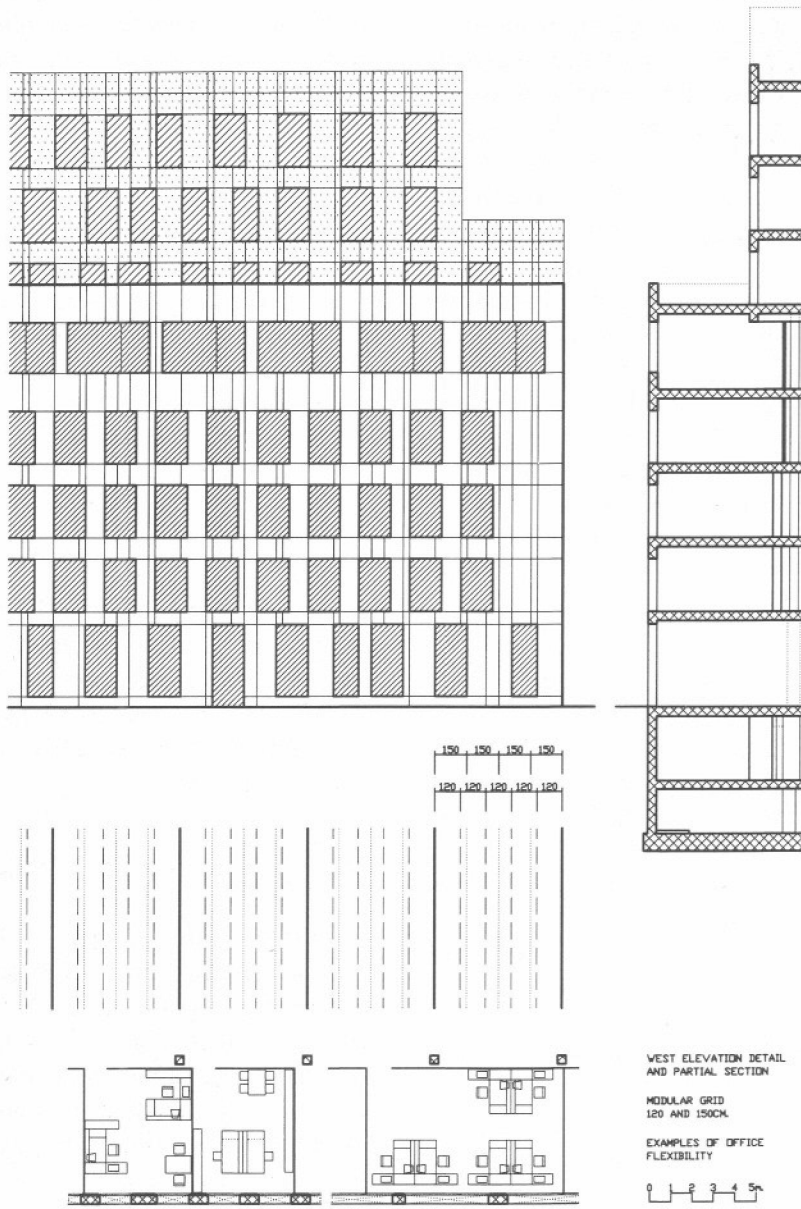
One final aspect of the spatial conceptualization of this project concerns our novel approach to the on-going debate about the status of the courtyard as a semi-public space. One notices, in Berlin, in a diffused

manner, a tendency to fuse open spaces at the centre of the blocks, most often to permit them to host commercial activities and restaurant terraces. This principal of the common courtyard, capable of being converted into an arcade or a commercial patio, is supported by long tradition. We decided not to unite the courtyard of our building with the courtyard of the adjacent building to the east (Haus Merkur). We thought that the fusion would have weakened the status of the Pariser Platz as a privileged public space, and that to propose a supplementary square behind the façades would have contradicted the very intentions of the master plan for this part of the city. To materially express the division of the property without altering the visual continuity between the two courtyards, we chose to lower the ground of the courtyard by about 2m (Figure 7). Additionally, this measure allowed welcome natural lighting into the commercial floor situated at the first underground level.

### **Every judgement will be judged**

To compare this project with the other proposals put forward in the competition and discuss the arguments of the jury would require another paper.<sup>19</sup> What has been important here is to show how convictions relating to the qualitative control of urban transformations could and can concretely orient project choices.

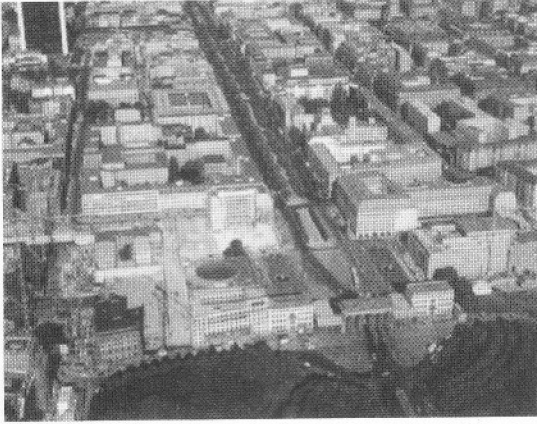
This detailed analysis of an architectural project that is overtly conscious of its contextual impact gives us a better understanding of how an individual proposal can exercise normative or prescriptive power, and thus take part in the process of the clarification of common values. In sum, whether achieved or not, a building project, whose internal planning (among other things) was thought out in close relation to the urban context, does more than simply expose itself to public criticism. It shows simultaneously a certain vision of the city: a vision of how it actually appears and a vision of the possibilities that it might develop. Those



**Figure 8. Béatrix & Consolascio’s project for a commercial and residential building at Pariser Platz/Unter den Linden 80, Berlin: west elevation detail and partial section, modular grid and examples of office flexibility (redrawn by Jérôme Zufferey, Bex CH).**

who adhere to these cultural stances, who subscribe to these current values and want to support these specific initiatives, seek to confirm these ideals in their own work, not by superficially imitating the building that is their incarnation, but by taking inspiration from the *method* of its conception. Those on the contrary who contest the choice of common values or the suggested way of

innovating submit to public choice other ways to inherit the city of yesterday and to adapt it to new needs. By this process, that is to say by grounding the task at hand in a careful study of the results of past actions in relation to attainable possibilities, the act of building offers precious stimuli to the cultural debate. A competition, even if it is not immune to questionable manipulations,



**Figure 9. Pariser Platz, Berlin: status of the square in 1998, 3 years after the start of the critical repairs campaign. Reproduced from Kleinwachter-Jarnot and Schoen (eds), *op. cit.*, 32 (note 9).**

remains a useful way to promote this debate.

In these conditions, if one makes the effort as observer and user of the city to contribute to the upgrading of the quality of our environment, it is clear that success will not come by dictating, even in general terms, to builders what they ideally should do. A better way is to take part in the process of comparative evaluation of what has been built (Figure 9), by expressing preferences and by trying to understand how the most convincing results were produced. The act of building is only culturally fruitful if it can proceed *freely* from a critical view of the constructed environment and benefit from diverse feedback, coming as much from specialists as from the public. We must then be careful to assure that eventual disagreements, on conceptual methods and the quality of the results produced, among professionals and 'aficionados' of urban design, do not result in the confiscation of the freedom to invent. If criticism (understood as a general form of normative discourse) is meant to make itself the credible partner of action, it cannot confine itself to the posture of permanent detachment, indifferent to historical contingencies. It must penetrate the knotty complexity of concrete situations, and show itself capable of identifying and defending 'small' and 'great'

successes (partial or total) which it considers *real*. To that end, criticism should not be afraid to confront professionals with relatively technical arguments. Otherwise, we shall have nothing but ideology and utopias with which to oppose practices that take their cues from experience.

### Acknowledgements

I should like to thank Ms. Elke Kleinwachter-Jarnot, Senatsverwaltung für Stadtentwicklung, Berlin, for the very helpful information she gave me; Deborah Abbott, Neuchâtel, Switzerland and Essex Junction, Vermont USA for the translation from the original manuscript in French; Jérôme Zufferey, architect, Bex, Switzerland, for the drawings for publication of the Béatrix & Consolascio project proposals; and Jean-Pierre Lagnese and Patrick Schilling, architecture students at Ecole Polytechnique Fédérale de Lausanne for their rapid progress report (February 2001) on the construction of Pariser Platz.

### Notes

1. Whitehand, J.W.R. (2000) 'From explanation to prescription', *Urban Morphology* 4, 1-2.
2. Muratori, S. (1959) *Studi per una operante storia urbana di Venezia* (Istituto poligrafico dello Stato, Roma); Muratori, S., Bollati, R., Bollati, S. and Marinucci, G. (1963) *Studi per una operante storia urbana di Roma* (Consiglio nazionale delle ricerche, Roma); Caniggia, G. (1963) *Lettura di una città: Como* (Centro Studi di Storia Urbanistica, Roma).
3. A typology is the result of a systematic classification of a group of objects (be they buildings or mushrooms) and should not be confused with the objects themselves, in this case with the layout of a single building. In French, the technical term is *distribution*; in Italian one speaks of the *caratteri distributivi degli edifici*; in German the current expression is *Grundrissplanung*.
4. Personally, the formative texts to which I am indebted and to which I periodically return are, other than those of Saverio Muratori (see note 2), those of Caniggia, G. (1983) 'Dialettica tra tipo e tessuto nei rapporti preesistenza - attualità, formazione -

- mutazione, sincronia – diacronia', *Studi e documenti di architettura* 11, 25-36 (I have translated this paper by Caniggia in collaboration with Heinrich Helfenstein and included it, as guest editor, in a special issue of *Archithese*, addressing the theme of the identity of place: see Caniggia, G. (1984) 'Vom Werden des städtischen Ortes. Zur Dialektik von Gebäudetyp und Stadtgefüge', *Archithese* 3, 33-8); Aymonino, C. (1966) 'La formazione di un moderno concetto di tipologia edilizia', in Aymonino, C., Cristofoli, C., Fabbri, G. and Rossi, A., *Rapporti tra la morfologia urbana e la tipologia edilizia* (Istituto universitario di Architettura, Venezia), 15-51.
5. Broadbent, G. (1996) *Emerging concepts in urban space design* (Spon, London). I studied the difficulties in the historiographic use of the term 'rationalism' to distinguish certain contributions to the theory of architecture in Malfroy, S. (1987) 'Rationalismus als Sorge um den geistigen Gehalt des Bauens. Der intellektuelle Werdegang des Architekten Saverio Muratori (1910-1973)', *Archithese* 4, 22-9.
  6. Caniggia, G. (1965) 'La regolamentazione edilizia. Lettura degli aspetti concreti nella teoria e nella pratica', in Cuccia, F. (ed.) *La regolamentazione edilizia* (Tipografia operaia romana, Roma).
  7. First published 1936, the handbook of Ernst Neufert last year reached in Germany its 36th revised and augmented edition, not to speak of the innumerable translations: see Neufert, E. (2000) *Bauelementarlehre* (Vieweg, Braunschweig). On Neufert, see Prigge, W. (ed.) (1999) *Ernst Neufert: normierte Baukultur im 20. Jahrhundert* (Campus, Frankfurt/Main). Carbonara, P. (1954-1970) *Architettura pratica. Composizione degli edifici* (UTET, Torino).
  8. Kleihues, J. P. and Klotz, H. (eds) (1986) *Internationale Bauausstellung Berlin 1987* (Klett – Cotta, Stuttgart). For a brief overview, see Broadbent, *op. cit.* (note 5). For a recent and remarkably lucid report, see Pinson, G. (2000) 'La "reconstruction critique" à Berlin, entre formes et idéologie', *Le visiteur* 6, 130-55.
  9. All the participants in this reconstruction process were remarkably well equipped with historical information, assembled by the best experts, on the physical evolution of the area: see Strecker, B. and Hoffmann-Axthelm, D. (1991) *Pariser Platz, kritische Rekonstruktion des Bereichs* (Senatsverwaltung für Bau- und Wohnungswesen, Berlin); Machleidt, H. (1992) *Städtebauliches Gutachten Umfeld Reichstag Pariser Platz* (Senatsverwaltung für Stadtentwicklung und Umweltschutz, Berlin); Engel, H. (1995) *Pariser Platz* (Senatsverwaltung für Stadtentwicklung und Umweltschutz, Berlin). For an assessment of the now almost completed operation, see Kleinwaechter-Jarnot, E. and Schoen, A. (eds) (1998) *Der Pariser Platz. Wiedergewinnung eines historischen Stadtraumes* (Senatsverwaltung für Bauen, Wohnen und Verkehr, Berlin). Recent and very useful aerial views of the site and reconstruction stages may be found in Schneider, G. and Cobbers, A. (2000) *Berlin in Luftbildern, Berlin – aerial views, Berlin – photos aériennes* (Jaron, Berlin).
  10. Senatsverwaltung für Bau- und Wohnungswesen, Berlin, *Bebauungsplan I-200, Pariser Platz*, 24 March 1995, partially reproduced in Kleinwaechter-Jarnot and Schoen (eds), *op. cit.*, 30-1 (note 9).
  11. Elsewhere I have looked in more detail at the delicate question of the status of architecture as a discipline: see Malfroy, S. (2001) 'Le projet architectural: entreprise rationnelle indisciplinee', *Cahiers thématiques. Architecture, Histoire / conception* 1 (Editions de l'Ecole d'architecture de Lille et des Régions-Nord, Villeneuve d'Ascq, France) 124-37.
  12. Eraldo Consolascio graduated from the Eidgenössische Technische Hochschule in Zurich in 1974. In 1978 he, along with Aldo Rossi and Max Bosshard, undertook a vast study of the morphology of settlements in the Canton of Ticino, which attests to his familiarity with the theoretical questions recently discussed in *Urban Morphology: Consolascio, E., Rossi, A. and Bosshard, M. (1979) La costruzione del territorio nel Cantone Ticino* (Fondazione Ticino Nostro, Lugano). On the activities of the firm Béatrix & Consolascio, see Malfroy, S. (1998) 'Béatrix und Consolascio', in Rucki, I. and Huber, D. (eds) *Architektenlexikon der Schweiz 19./20. Jh.* (Birkhäuser, Basel) 56-7. The architect Erich Maier, a partner at the firm Béatrix & Consolascio in Zurich, should

- not be confused with Helmut Maier, a Berlin architect, member of the Society for the Preservation of the Historic Heritage of Berlin, which also took part in the competition, but without winning one of the prizes.
13. ABG – Allgemeine Beteiligungs- und Gewerbeimmobilienverwaltung – GmbH & Co (June 1996) *Ausschreibung. Beschränkter Realisierungswettbewerb, Geschäfts- und Wohngebäude am Pariser Platz – Unter den Linden 80* (unpublished, Achatzi Architekten, Berlin).
  14. Plot ratio is calculated by dividing the total floor area by the surface area of the plot.
  15. Geist, J. F. and Kürvers, K. (1984) *Das Berliner Mietshaus 1862-1945* (Prestel, München).
  16. Caniggia (1983), *op. cit.* (note 4); Malfroy, S. (1986) *L'approche morphologique de la ville et du territoire. Introduction à la terminologie / Die morphologische Betrachtungsweise von Stadt und Territorium. Eine Einführung in die Terminologie* (ETHZ, Zurich).
  17. Some people will be shocked at the idea that one can draw inspiration for the conception of a project in Berlin from foreign architectural suggestions instead of limiting the muses to the *genius loci*. One must understand that the design for a single edifice is not *that alone*, but has as an ulterior motive to contribute not only to the construction of the city (in this case Berlin) *but also* to the advancement of architecture itself, as a collective wealth of knowledge and know-how. To declare a debt to a pioneer of urbanism is certainly an obligation of intellectual integrity but it is above all a way to recall that building is an act of culture and that culture only has sense when shared and collectively maintained.
- Why should the people of Berlin deprive themselves of a good idea invented in Barcelona to confront a similar need to reconcile the attachment to a dense city (arranged in blocks) and the recognition of new needs in the domain of public hygiene, natural light, and comfort? On the ideas for reforms of collective housing proposed by Ildefonso Cerdà in conjunction with his plan to enlarge Barcelona, and the little-known prototypes which were built, see Cerdà, I. (1864) 'Planta de las manzanas que tiene en construccion la Sociedad Fomento del Ensanche de Barcelona', *Revista de Obras Publicas* 12 (24), cited in Galera, M., Roca, F. and Tarrago, S. (1982) *Atlas de Barcelona* (Col.legi Oficial d'Arquitectes de Catalunya, Barcelona), 474-7; Soria y Puig, A. (1995) 'Ildefonso Cerdà's general theory of Urbanización', *Town Planning Review* 66, 15-39.
18. Hegemann, W. (1930) *Das steinerne Berlin, Geschichte der grössten Mietkasernenstadt der Welt* (Kiepenheuer, Berlin).
  19. The project of the firm Béatrix & Conso-lascio was classed second behind the prize-winning project of the architects Ortner & Ortner, established in Vienna and Berlin. ABG – Allgemeine Beteiligungs- und Gewerbe-immobilienverwaltung – GmbH & Co (October 1996) *Ergebnisprotokoll. Beschränkter Realisierungswettbewerb, Geschäfts- und Wohngebäude am Pariser Platz – Unter den Linden 80* (unpublished, Achatzi Architekten, Berlin). I have outlined elsewhere a systematic method of comparison of the results of a competition for urban projects in the case of the restructuring of the Saxe square in Leipzig: see Malfroy, S. and Zierau, F. (1998) 'Tabula rasa de facto', *Werk, Bauen + Wohnen* 12, 24-9.