

OPPOSITIONS BOOKS

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The Architecture of the City

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I have already used the term *locus* several times in this book. The *locus* is a relationship between a certain specific location and the buildings that are in it. It is at once singular and universal.

The selection of the location for any building, as also for any city, was of primary importance in the classical world. The "situation"—the site—was governed by the *genius loci*, the local divinity, an intermediary who presided over all that was to unfold in it. The concept of *locus* was also present at all times for the theoretician of the Renaissance, even if by the time of Palladio and later Milizia its treatment took on an increasingly topographical and functional aspect. In the writings of Palladio, one can still sense the living presence of the classical world, the vital secret of a relationship between old and new. More than just a function of a specific architectural culture, this relationship is manifest in works like the Villa Malcontenta and the Villa Rotonda, in which it is precisely their "situation" which conditions our understanding. Viollet-le-Duc, too, in his efforts to interpret architecture as a series of logical operations based on a few rational principles, admitted the difficulty of transposing a work of architecture from one place to another. In his general theory of architecture, the *locus* participates as a unique and physical place.

More recently, a geographer like Sorre could suggest the possibility of a theory of spatial division¹ and, based on this, postulate the existence of "singular points." The *locus*, so conceived, emphasizes the conditions and qualities within undifferentiated space which are necessary for understanding an urban artifact. Along similar lines, Halbwachs, in the last years of his life, concerned himself with the topography of legendary places. He argued that during different periods holy places have presented different physiognomies, and in these can be found the images of the various Christian groups who constructed and situated them according to their aspirations and their needs.

Let us consider for a moment the space of the Catholic religion. Since the Church is indivisible this space covers the whole earth. In such a universe the concept of the individual location becomes secondary, as does that of the boundary or frontier. Space is determined with respect to a single center, the seat of the Pope; but this same earthly space is nothing but a moment, a small part of the universal space which is the place of the communion of saints. (This idea is similar to that of the transcendence of space as it is understood by the mystics.) Even in this total and undifferentiated framework, where the idea of space itself is nullified and transcended, "singular points" exist; these are the places of pilgrimage, the sanctuaries where the faithful enter into more direct communication with God. In this way the sacraments become signs of grace in the Christian doctrine. Through their visible parts they signify or indicate the invisible grace which they confer; and because in signifying it they actually confer it, they are potent signs.

It is possible to identify such a singular point by a particular event that occurred there at some time or an infinite variety of other causes, both rational and irrational. Even within the universal space of the Church, there is still an intermediate value that is recognized and sanctioned, the possibility of a real—if extraordinary—idea of space. To bring this idea into the domain of urban artifacts, we must return to the value of images, to the physical analysis of artifacts and their surroundings; and perhaps this will lead us to a pure and simple understanding of the value of the *locus*. For such an idea of place and time is seemingly capable of being expressed rationally, even if it embraces a series of values that

Chapter 3 The Individuality of Urban Artifacts; Architecture

The Locus

63 One of the chapels of the Sacro Monte at Orta, Italy, circa 1600.





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64 Chapels of the Sacro Monte at Orta, circa 1600.

65 View of the Sacro Monte at Varese, Italy, showing the chapels flanking the street to the Holy Sepulcher. Engraving by L. and P. Giarré.

66 Baveno, Italy, Renaissance portico built over Via Crucis.



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are outside and beyond what we experience.

I realize the delicacy of this argument; but it is latent in every empirical study; it is part of experience. Henri Paul Eydoux,² in his studies on Gallic France, spoke specifically of places that have always been considered unique, and he suggested further analysis of such places, which seem to have been predestined by history. These places are real signs of space; and as such they have a relationship both to chance and to tradition.

I often think of the piazzas depicted by the Renaissance painters, where the place of architecture, the human construction, takes on a general value of place and of memory because it is so strongly fixed in a single moment. This moment becomes the primary and most profound idea that we have of the piazzas of Italy, and is therefore linked with our spatial idea of the Italian cities themselves. Ideas of this type are bound up with our historical culture, with our existence in built landscapes, with references that carry over from one context to another and thus also with the rediscovery of singular points, which are virtually the closest approximation to a spatial idea that we have imagined. Henri Focillon speaks of psychological places, places without which the spirit of an environment would be opaque or elusive. Thus, to describe a particular artistic landscape, he offers the notion of "art as place." "The landscape of Gothic art, or rather, Gothic art as a landscape, created a France and a French humanity that no one could foresee: of outlines of the horizon, silhouettes of cities—a poetry, in short, that arose from Gothic art, and not from geology or from Capetian institutions. But is not the essential attribute of any environment that of producing, of shaping the past according to its own needs?"³

As is evident, the substitution of *Gothic art as place* for *Gothic landscape* is of enormous importance. In this sense, the building, the monument, and the city become human things par excellence; and as such, they are profoundly linked to an original occurrence, to a first sign, to composition, permanence, and evolution, and to both chance and tradition. As the first inhabitants fashioned an environment for themselves, they also formed a *place* and established its uniqueness.

The comments of the theoreticians on the framing of the landscape in painting the sureness with which the Romans repeated certain elements in their building of new cities, acknowledging in the *locus* the potential for transformation—these and many other facts cause us to intuit the importance of certain artifacts and when we consider information of this type, we realize why architecture was so important in the ancient world and in the Renaissance. It shaped a context. Its forms changed together with the larger changes of a site, participating in the constitution of a whole and serving an overall event, while at the same time constituting an event in itself. Only in this way can we understand the importance of an obelisk, a column, a tombstone. Who can distinguish anymore between an event and the sign that marks it?

I have asked many times in the course of this book, *where does the singularity of an urban artifact begin?* In its form, its function, its memory, or in something else again? We can now answer that it begins *in the event and in the sign that has marked the event*. This notion has traversed the history of architecture. Artists have always attempted to make something original, to make an artifact which precedes style. Burckhardt understood this process when he wrote, "There, in the sanctuary, they [the artists] took their first steps toward the sublime; the

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learned to eliminate the contingent from form. Types came into being; ultimately, the first ideals."⁴ Thus, the close relationship that once was present between forms and elements proposes itself again as a necessary origin; and so while on the one hand architecture addresses its own circumscribed domain, its elements and its ideals, on the other it tends to become identified with an artifact, and the separation which occurred at its origin and which permitted it to develop autonomously no longer is recognizable. It is in this sense that we can interpret a comment by Adolf Loos: "If we find a mound six feet long and three feet wide in the forest, formed into a pyramid, shaped by a shovel, we become serious and something in us says, 'someone lies buried here.' That is architecture."⁵ The mound six feet long and three feet wide is an extremely intense and pure architecture precisely because it is identifiable in the artifact. It is only in the history of architecture that a separation between the original element and its various forms occurred. From this separation, which the ancient world seemingly resolved forever, derives the universally acknowledged character of permanence of those first forms.

All of the great eras of architecture have reposed the architecture of antiquity anew, as if it were a paradigm established forever; but each time it has been reposed differently. Because this same idea of architecture has been manifested in different places, we can understand our own cities by measuring this standard against the actuality of the individual experience of each particular place. What I said at the beginning about the Palazzo della Ragione in Padua is perhaps subsumed in this idea, which goes beyond a building's functions and its history, but not beyond the particularity of the place in which it exists.

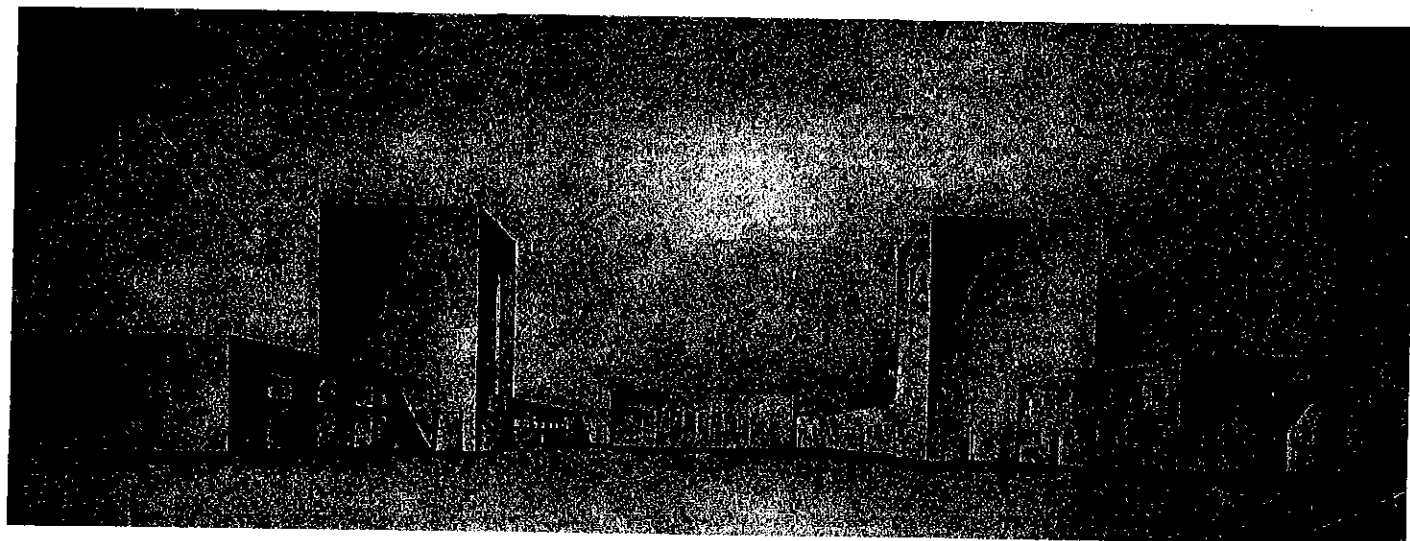
Perhaps we can better understand the concept of *locus*, which at times seems rather opaque, by approaching it from another perspective, by penetrating it in a more familiar, more visible—even if no longer rational—way. Otherwise, we continue to grasp at outlines which only evaporate and disappear. These outlines delineate the singularity of monuments, of the city, and of buildings, and thus the concept of singularity itself and its limits, where it begins and ends. They trace the relation of architecture to its location—the place of art—and thereby its connections to, and the precise articulation of, the *locus* itself as a singular artifact determined by its space and time, by its topographical dimensions and its form, by its being the seat of a succession of ancient and recent events, by its memory. All these problems are in large measure of a collective nature; they force us to pause for a moment on the relationship between place and man, and hence to look at the relationship between ecology and psychology.

"The greatest products of architecture are not so much individual as they are social works; rather the children of nations in labor than the inspired efforts of men of genius; the legacy of a race; the accumulated wealth of centuries, the residuum of the successive evaporations of human society—in a word, a species of formation."

Victor Hugo⁶

Architecture as Science

In his work of 1816 on the monuments of France, Alexandre de Laborde, like Quatremère de Quincy, praised the artists of the late eighteenth and early nineteenth century for going to Rome to study and master the immutable principles of knowledge, retracing the great roads of antiquity. The architects of this new school presented themselves as scholars of the physical artifacts of their sci-



67 *Project for the stables of Count
Sangusko in southern France, Adolf
Loos, 1924.*

ence: architecture. Thus they were traversing a familiar route, since their masters too had devoted themselves to establishing a logic of architecture based on essential principles. "They are at once artists and scholars; they have mastered the habit of observation and of criticism . . . "7

But Laborde and his contemporaries failed to note the fundamental character of these studies: the fact that they provided an introduction to urban problems and to the human sciences, an introduction that tipped the balance in favor of the scholar rather than the architect. Only a history of architecture based on artifacts gives us a comprehensive picture of this delicate balance and allows us a well-articulated knowledge of the artifacts themselves.

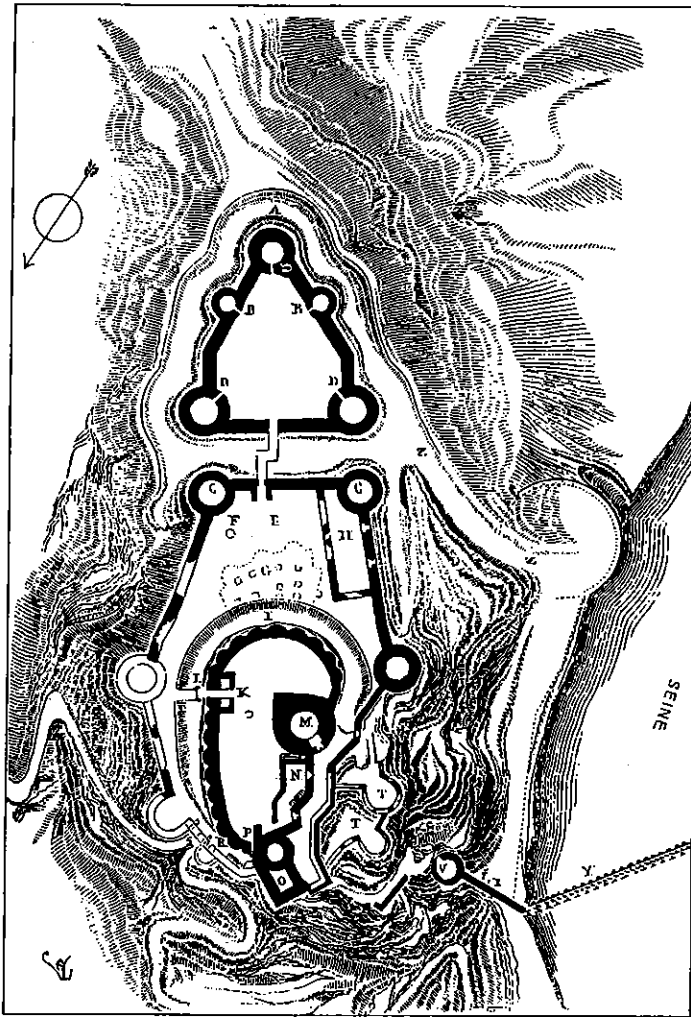
We know that the basic subject of the theoreticians and their teachings was the elaboration of a general principle of architecture, of architecture as a science, of the formulation and applications of buildings. Ledoux⁸ established his principles of architecture on the basis of the classical conception, but he was also concerned with places and events, situations and society. Thus, he studied the various buildings that society demanded with respect to their precise contexts.

For Viollet-le-Duc, too, the issue of architecture as science was unambiguous; for him there was only one solution to a problem. But, and here he expanded the thesis, since the problems addressed by architecture changed continually, therefore solutions had to be modified. According to the definition given by this French master, it was the principles of architecture together with the modifications of the real world that constituted the structure of the human creation. Thus in his *Dictionnaire* he set the great panorama of Gothic architecture in France before us with unparalleled power.

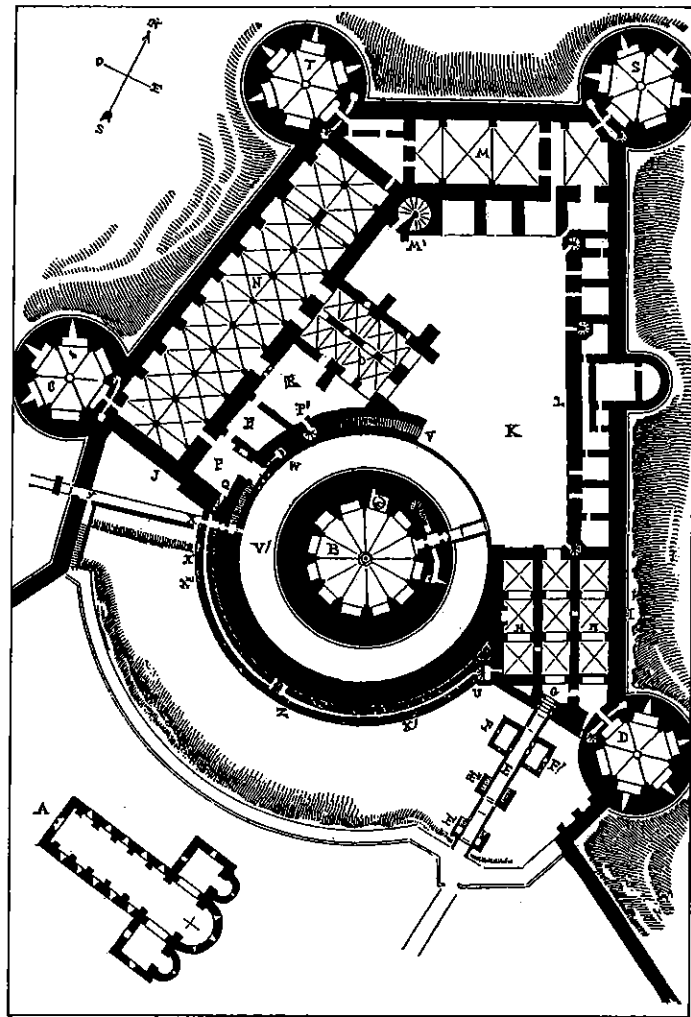
I know of few descriptions of architectural works which are as complete and persuasive as that of the Gaillard castle, Richard the Lionhearted's fortress.⁹ In Viollet-le-Duc's prose, it acquires the force of a permanent image of how an architectural work is structured. Both the structure and the uniqueness of the castle are revealed by way of an analysis of the building relative to the geography of the Seine, a study of military art, and a topographical knowledge of antiquity, in the end investing the two rival *condottieri*, the Norman and the French, with the same psychology. Not only does the history of France lie behind this, but the castle becomes a place about which we acquire a personal knowledge and experience.

Likewise, the study of the house begins with geographical classifications and sociological considerations and by way of architecture goes on to the structure of the city and the country, the human creation. Viollet-le-Duc discovered that of all architecture the house offers the best characterization of the customs, usages, and tastes of a population; its structure, like its functional organization, changes only over long periods of time. From a study of the plans of houses, he reconstructed the formation of urban nuclei and was able to point the direction for a comparative study of the typology of the French house.

Using the same principle, he described the cities constructed *ex novo* by the French kings. Montpazier, for example, not only had a regular grid, but all the houses were of an equal size and had the same plan. The people who came to live in a special city like this found themselves on a plane of absolute equality. Thus, a study of the lots and the urban block allowed Viollet-le-Duc a glimpse of the history of social classes in France that was based on reality; in this respect he antici-



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pates the social geographers and the conclusions of Tricart.

One must read the best texts of the French school of geography written in the first years of this century to find an equally scientific attitude, yet even the most superficial reading of Demangeon¹⁰ on the rural house in France recalls the works of the great theoreticians of the past. Starting with a description of the man-made landscape of the countryside, Demangeon recognized in the house persistent elements that were modified only over long periods of time and whose evolution was longer and more complex than those of the rural economy to which they did not always or easily correspond; thus he proposed the existence of typological constants in housing and concerned himself with discovering the elemental types of housing.

Ultimately, the house, once extracted from its context, revealed that it derived not only from this local context, but manifested also external relationships, distant kinships, and general influences. Thus, by studying the geographical distribution of one type of house Demangeon avoided reducing many of his observations to the determinism of place, whether in terms of materials, economic structures, or functions; thereby he was able to delineate historical relations and cultural currents. Such an analysis necessarily falls short of a broad conception of the structure of the city and the region, something which the earlier theoreticians were able to recognize in overall form; but by comparison with Viollet-le-Duc's studies, it possesses in precision and methodological rigor what it lacks in general comprehensiveness.

It is as significant as it is surprising that it took an architect who was considered a revolutionary to take up and to synthesize themes which were seemingly remote from his analysis; thus, in his definition of the house as a machine and architecture as a tool (so scandalous at the time to the cultured academicians of art), Le Corbusier¹¹ did no less than combine all the practical teachings of this French school which, as we have said, were based on the study of reality. It was in the same years, in fact, that Demangeon spoke (in the work just referred to) of the rural house as a tool forged for the work of the farmer. The human creation and the forged tool seem, once again, to bracket this discourse and thrust it into a vision of architecture based on the real, a totalistic vision of which perhaps only artists are capable.

But such a conclusion only closes the discourse without having accomplished anything if it presumes the relationship between analysis and design to be a problem of the individual architect rather than of the progress of architecture as science. It denies the hope contained in Laborde's remark, that he saw in the new generation of men of art and culture those who had taken up the habit of criticism and observation—in other words, who saw the possibility of a more profound understanding of the structure of the city. I believe that this kind of study of the object of architecture as it is here understood, as a human creation, must precede analysis and design.

Such study must necessarily take in the full structure of the relationship between individual and communal work, the accumulated history of centuries, the evolution and the permanence of disparate cultures. Thus this section begins with a passage from Victor Hugo¹² which can serve as a program of study. In his often zealous passion for the great national architecture of the past, Hugo, like so many other artists and scientists, sought to understand the structure of this fixed scene of human events; and when he referred to architecture and the city in

68 Gaillard Castle, Normandy, France, plan by Viollet-le-Duc.

A) Moat dug in the rock and main tower. B) Secondary towers. C) Principal towers. D) Secondary towers. E) First enclosure of the castle, surrounding the lower court. F) Well. G) Cellars leading to outside. H) Chapel. K) Castle entrance. L) Moat. M) Keep. N) Apartments of the commander. P) Emergency exit. R) Surveillance route. T) Towers and wall dug in the rock. V) Tower. X) Rampart. Y) River barricade. Z) Primary moat.

69 Castle of Coucy on the Ile de France, thirteenth to fourteenth century. Plan of ground floor by Viollet-le-Duc. A) Already existing chapels. B) Keep. C), D) Towers. E) Access bridge. K) Courtyard. L) Service buildings. M) Typical apartments. N) Storeroom on ground floor and large salon on upper floors. S), T) Towers.

their collective aspect as "a species of formation," he enriched our work with a reference as authoritative as it is suggestive.

Urban Ecology and Psychology

In the preceding section, I tried to emphasize the fact that through architecture, perhaps more than any other point of view, one can arrive at a comprehensive vision of the city and an understanding of its structure. In this sense, I underscored the studies of the house by Viollet-le-Duc and Demangeon, and suggested the usefulness of a comparative analysis of their findings. Moreover, I suggested that in Le Corbusier's work such a synthesis has already been accomplished.

I now wish to introduce into this discourse some observations on ecology and psychology, the latter in its application to urban science. Ecology as the knowledge of the relationships between a living being and his environment cannot be discussed here. This is a problem which has belonged to sociology and natural philosophy ever since Montesquieu, and despite its enormous interest, it would take us too far afield.

Let us consider only this question: how does the *locus urbis*, once it has been determined, influence the individual and the collective? This question interests me here in the ecological sense of Sorre: that is, *how does the environment influence the individual and the collective?* For Sorre, this question was far more interesting than the opposite one of how man influences his environment.¹³ With the latter question, the idea of human ecology changes meaning abruptly and involves the whole history of civilization. We already responded to this question, or to the system that the two questions form, when at the beginning of this study we defined the city as a human thing *par excellence*.

But as we have said, even for ecology and the urban ecology to which we refer, this study has meaning only when the city is seen in the entirety of its parts, as a complex structure. The historically determined relationships and influences between man and the city cannot be studied by reducing them to a schematic model of the city as in the urban ecology models of the American school from Park to Hoyt. These theories can offer some answers, as far as I can see, relative to urban technics, but they have little to contribute to the development of an urban science founded on artifacts and not on models.

That the study of collective psychology has an essential part in the study of the city seems undeniable. Many of the authors to whom I feel closest in this work base their studies on collective psychology, which in turn is linked to sociology. This linkage has been amply documented. Collective psychology has bearing upon all the sciences where the city as an object of study is of primary importance.

Valuable information also may be obtained from the experiments conducted under the banner of Gestalt psychology, as undertaken by the Bauhaus in the domain of form and as proposed by the American school of Lynch.¹⁴ In this book, I have particularly made use of some of Lynch's conclusions with respect to the residential district, as confirmation of the distinctive character of different districts within the city. There have been, however, some inappropriate extensions of the methods of experimental psychology; but before addressing these I should touch briefly on the relationship between the city and architecture as technics.*

*The dictionary defines "technics" (Italian *tecnica*) as "the study of principles of an art or of the arts in general, especially practical arts" (*Webster's New Twentieth Century Dictionary, Unabridged*, 2d ed.). This is the meaning intended here and in what follows.—*Ed.*

In speaking of the constitution of an artifact and of its memory, I am thinking of these problems largely in terms of their collective nature; they pertain to the city, and thus to its collective citizenry. I maintain that in an art or a science the principles and means of action are elaborated collectively or transmitted through a tradition in which all the sciences and arts are operating as collective phenomena. But at the same time they are not collective in all their essential parts; individuals carry them out. This relationship between a collective artifact, which is necessarily an urban artifact, and the individual who proposes and single-handedly realizes it can only be understood through a study of the technics by which the artifact is manifested. There are many different technics; one of them is architecture, and since this is the object of our study, we must here be concerned with it above all, and with economics and history only to the extent that they are manifested in the architecture of the city.

The relationship in architecture between the collective urban artifact and the individual is unique with respect to the other technics and arts. In fact, architecture presents itself as a vast cultural movement: it is discussed and criticized well beyond the narrow circle of its specialists; it needs to be realized, to become part of the city, to become "the city." In a certain sense, there is no such thing as buildings that are politically "opposed," since the ones that are realized are always those of the dominant class, or at least those which express a possibility of reconciling certain new needs with a specific urban condition. Thus there is a direct relationship between the formulation of certain proposals and the buildings that arise in the city.

But it is equally obvious that this relationship can also be considered in its separate terms. The world of architecture can be seen to unfold and be studied as a logical succession of principles and forms more or less autonomous from the reality of *locus* and history. Thus, architecture implies the city; but this city may be an ideal city, of perfect and harmonious relationships, where the architecture develops and constructs its own terms of reference. At the same time, the actual architecture of this city is unique; from the very first it has a characteristic—and ambiguous—relationship that no other art or science possesses. In these terms we can understand the constant polemical urge of architects to design systems in which the spatial order becomes the order of society and attempts to transform society.

Yet outside of design, even outside of architecture itself, exist urban artifacts, the city, monuments; monographs on single works in particular periods and environments demonstrate this. In his study of Florence in the Age of Humanism, André Chastel¹⁵ demonstrates clearly all the links between civilization and art, history, and politics which informed the new vision of Florence (as also Athens, Rome, and New York) and the arts and processes that were shaping it.

If we consider Palladio and the historically determined cities of the Veneto in which we find his work, and how the study of these cities actually transcends Palladio the architect, we find that the concept of *locus* from which we began these arguments acquires its full meaning; it becomes the *urban context*, and is identifiable as a single artifact. Again we can ask, where does the singularity reside? It resides in the single artifact, in its material, the succession of events that unfolds around it, and the minds of its makers; but also in the place that determines it—both in a physical sense and above all in the sense of the choice of this place

and the indivisible unity that is established between it and the work.

The history of the city is also the history of architecture. But we must remember that the history of architecture is at most one point of view from which to look at the city. The failure to understand this has led to much time spent in studying the city and its architecture in terms of its images, or else an attempt to study the city from the standpoint of other sciences, for example psychology. But what can psychology tell us if not that a certain individual sees the city in one way and that other individuals see it in another? And how can this private and uncultivated vision be related to the laws and principles from which the city first emerged and through which its images were formed? If we are concerned with the city architecturally from more than a stylistic point of view, it does not make sense to abandon architecture and occupy ourselves with something else. Indeed, no one would entertain the idea that when the theoreticians tell us that buildings must respond to criteria of firmness, commodity, and delight, they must explain the psychological motives behind this principle.

When Bernini speaks disdainfully of Paris because he finds its Gothic landscape barbarous,¹⁶ we are hardly interested in Bernini's psychology; instead we are interested in the judgment of an architect who on the basis of the total and specific culture of one city judges the structure of another city. Similarly, that Mies van der Rohe had a certain vision of architecture is important not for ascertaining the "taste" or the "attitude" of the German middle class relative to the city, but for allowing us to appreciate the theoretical basis, the cultural patrimony of Schinkel's classicism, and other ideas with which this is connected in the German city.

The critic who discusses why a poet has used a particular meter in a certain place in his poetry is considering what compositional problem has presented itself to the poet on a specific occasion. And thus in studying this relationship he is concerned with literature, and possesses all the means necessary for grappling with this problem.

How Urban Elements Become Defined

To take this analysis further, we must address ourselves to artifacts themselves, both typical and atypical, to try to understand how certain problems arise and become clarified in and through them. I often think, from this point of view, of the meaning of symbolism in architecture—and among the symbolists, of the "revolutionary architects" of the eighteenth century and of the Constructivists (who also were revolutionary architects). The present theory probably permits the most sensible explanation of symbolism, for to think of symbolism solely in terms of how a particular symbol actually served an event is simply a functionalist position. Rather, it is as if precisely at the decisive moments of history architecture repropounded its own necessity to be "sign" and "event" in order to establish and shape a new era.¹⁷

Boullée writes, "A sphere, at all times, is equal only to itself; it is the perfect symbol of equality. No body possesses, as it does, this exceptional quality: that each of its facets is equal to all the others." The symbol of the sphere thus can sum up an architecture and its principles; at the same time, it can be the very condition for its being constructed, its motive. The sphere not only represents—or rather, does not represent, in itself is—the idea of equality; its presence as a sphere, and thus as a monument, is the *constituting* of equality.

One also thinks in this connection of the discussions (which were only superficially typological) of the central plan in the humanist period: "the function of the [central plan] building is double; it releases the soul as effectively as possible to its contemplative faculties and by this arrives at a sort of therapeutic spirituality that exalts and purifies the spectator; yet the very sublimity of the work constitutes an act of adoration that attains a religious tone through its absolute beauty."¹⁸

The disputes over the central plan, while they accompanied tendencies to reform or simplify religious practice within the church, led to the rediscovery of a type of plan that was one of the typical forms of early antiquity before it became the canonical church type of the Byzantine empire. It is as if a continuity of urban artifacts which had been lost had to be rediscovered amid new conditions, which then became new foundations. Chastel summarizes all of this when he states, "Three series of considerations come into play in the choice of the central plan: the symbolic value attributed to the circular form, the great number of geometric speculations prompted by studies of volumes in which the sphere and cube were combined, and the prestige of historical examples."¹⁹

The centrally planned church of San Lorenzo in Milan is a good example.²⁰ The scheme of San Lorenzo immediately reappears in the Renaissance; Leonardo continually, almost obsessively, analyzes it in his notebooks. The scheme becomes in Borromini's notebooks a unique artifact whose form is strongly influenced by two great Milanese monuments: not just San Lorenzo but also the Duomo. Borromini mediates between these two buildings in all of his architecture and, coupling the Gothic verticalism of the Duomo with the central plan of San Lorenzo, introduces into them strange, almost biographical characteristics.

In the San Lorenzo we see today, the various types of additions to it, from the medieval (the Chapel of St. Aquilinus) to the Renaissance (Martino Bassi's dome), are still apparent, while the entire structure occupies the place of the ancient Roman baths, in the very heart of Roman Milan. We are clearly in the presence of a monument; but is it possible to speak of it and its urban context purely in terms of form? It seems far more appropriate to look for its meaning, its reason, its style, its history. This is how it appeared to the artists of the Renaissance, and how it became an idea of architecture that could be reformulated in a new design. No one can speak of the architecture of the city without understanding such artifacts; they constantly demand further investigation for they constitute the principal foundations of an urban science. An interpretation of symbolic architecture in these terms can inform all architecture; it creates an association between the event and its sign.

Certain works which participate as original events in the formation of the city endure and become characteristic over time, transforming or denying their original function, and finally constituting a fragment of the city—so much so that we tend to consider them more from a purely urban viewpoint than from an architectural one. Other works signify the constitution of something new and are a sign of a new epoch in urban history; these are mostly bound up with revolutionary periods, with decisive events in the historical course of the city. Thus the need to establish a new standard of judgment arises more or less necessarily during certain periods of architecture.

I have tried to differentiate between an urban artifact and architecture in itself, but with respect to urban architecture, the most important and concretely verifiable facts occur through the coincidence of these two aspects, and through the influence that one exerts over the other. Although this book is about the architecture of the city, and considers the problems of architecture in itself and those of urban architecture taken as a whole to be intimately connected, there are certain problems of architecture which cannot be taken up here; I refer specifically to *compositional problems*. These decidedly have their own autonomy. They concern architecture as a composition, and this means that they also concern style.

Architecture, along with composition, is both contingent upon and determinative of the constitution of urban artifacts, especially at those times when it is capable of synthesizing the whole civil and political scope of an epoch, when it is highly rational, comprehensive, and transmissible—in other words, when it can be seen as a *style*. It is at these times that the possibility of transmission is implicit, a transmission that is capable of rendering a style universal.

The identification of particular urban artifacts and cities with a style of architecture is so automatic in certain contexts of space and time that we can speak with discrete precision of the Gothic city, the baroque city, the neoclassical city. These stylistic definitions immediately become morphological definitions; they precisely define the nature of urban artifacts. In these terms it is possible to speak of civic design. For this to occur, it is necessary that a moment of decisive historical and political importance coincide with an architecture that is rational and definite in its forms. It is then possible for the community to resolve its problems of choice, to desire collectively one kind of city and to reject another. I will come back to this in the last chapter of this book in discussing the issue of choice in the context of the political problem of the city. For now it is enough to state that no choices can be made without this historical coincidence, that the constituting of an urban artifact is not possible otherwise.

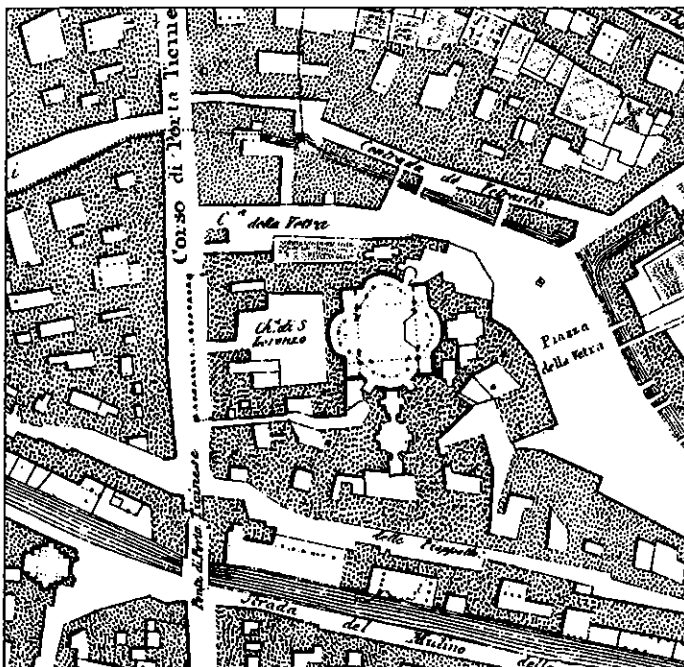
The principles of architecture are unique and immutable; but the responses to different questions as they occur in actual situations, human situations, constantly vary. On the one hand, therefore, is the rationality of architecture; on the other, the life of the works themselves. When an architecture at a particular moment begins to constitute new urban artifacts which are *not* responsive to the actual situation of the city, it necessarily does so on the level of aesthetics; and its results inevitably tend to correspond historically to reformist or revolutionary movements.

The assumption that urban artifacts are the founding principle of the constitution of the city denies and refutes the notion of *urban design*. This latter notion is commonly understood with respect to context; it has to do with configurating and constructing a homogeneous, coordinated, continuous environment that presents itself with the coherence of a landscape. It seeks laws, reasons, and orders which arise not from a city's actual historical conditions, but from a plan, a general projection of how things should be. Such projections are acceptable and realistic only when they address one "piece of city" (in the sense we spoke of the city of parts in the first chapter), or when they refer to the totality of buildings; but they have nothing useful to contribute relative to the formation of the city. Urban artifacts often coexist like lacerations within a certain order; above all,



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70 Basilica of San Lorenzo Maggiore, Milan.



71 Plan of the Basilica of San Lorenzo Maggiore and the surrounding area, prepared by the Astronomers of Brera, 1807.

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they *constitute* forms rather than continue them. A conception which reduces the form of urban artifacts to an image and to the taste which receives this image is ultimately too limited for an understanding of the structure of urban artifacts. In contrast is the possibility to interpret urban artifacts in all of their fullness, to resolve a part of the city in a complete way by determining all the relationships that can be established as existing with respect to any artifact.

In a study on the formation of the modern city, Carlo Aymonino illustrated how the task of modern architecture is "to pinpoint a series of concepts and relationships which, if they have some fundamental laws in common from a technological and organizational standpoint, become verified in partial *models*, and are differentiated precisely through their resolution in a finished architectonic form which is specific and recognizable." He goes on to state that with "the end of the system of horizontal usage [zoning provisions], and with purely volumetric-quantitative building utilization [standards and regulations], the architectural section . . . becomes one of the governing images, the generating nucleus of the entire composition."²¹

It seems to me that to formulate a building *in the most concrete way possible*, especially at the design stage, is to give a new impulse to architecture itself, to reconstitute that total vision of analysis and design on which we have so urgently insisted. A conception of this type, in which the architectural dynamic prevails in the form powerfully and fundamentally, responds to the nature of urban artifacts as they really are. The constitution of new urban artifacts—in other words, the growth of the city—has always occurred through such a precise definition of elements. This extreme degree of definition has at times provoked non-spontaneous formulations, but even if their real modes of actualization could not be anticipated, these have served as a general framework. In this sense the developmental plan for a city can be significant.

This theory arises from an analysis of the urban reality; and this reality contradicts the notion that preordained functions by themselves govern artifacts and that the problem is simply to give form to certain functions. In actuality, forms in the very act of being constituted go beyond the functions which they must serve; they arise like the city itself. In this sense, too, the building is one with the urban reality, and the urban character of architectural artifacts takes on greater meaning with respect to the design project. To consider city and buildings separately, to interpret purely organizational functions in terms of representation, is to return the discourse to a narrow functionalist vision of the city. This is a negative vision because it conceives of buildings merely as scaffoldings for functional variations, abstract containers that embody whatever functions successively fill them.

The alternative to the functionalist conception is neither simple nor easy, and if on the one hand we reject naive functionalism, on the other we must still come to grips with the whole of functionalist theory. Thus we must mark out the limits within which this theory is continuously formulated and the ambiguities which it contains, even in the most recent proposals, which are sometimes self-contradictory. I believe that we will not transcend functionalist theory until we recognize the importance of both *form and the rational processes of architecture*, seeing in form itself the capacity to embrace many different values, meanings, and uses. Earlier I spoke of the theater in Arles, the Coliseum, and monuments in general as examples of this argument.

Once again, it is the sum of these values, including memory itself, which constitutes the structure of urban artifacts. These values have nothing to do with either organization or function taken by itself. I am inclined to believe that the way a particular function operates does not change, or changes only by necessity, and that the mediation between functional and organizational demands can occur only through form. Each time we find ourselves in the presence of real urban artifacts we realize their complexity, and this structural complexity overcomes any narrow interpretation based on function. Zoning and general organizational schemes can only be references, however useful, for an analysis of the city as a man-made object.

I now wish to return to the relationship between architecture and *locus*, first to propose some other aspects of this problem and then to consider the value of the monument in the city. We will take the Roman Forum as an example because it is a monument of fundamental importance for a comprehensive understanding of urban artifacts.²²

The Roman Forum

The Roman Forum, center of the Roman Empire, reference point for the construction and transformation of so many cities of the classical world, and foundation of classical architecture and the science of the city practiced by the Romans, is actually anomalous with respect to the origins of Rome itself. The city's origins were at once geographical and historical. The site consisted of a low and marshy zone between steep hills. In its center, among willows and cane fields that were entirely flooded during the rains, was stagnant water; on the hills were woods and pastures. Aeneas described the sight in this way: "... and they saw herds of cattle lowing here and there in the Roman forum and in the elegant Carinae quarter."²³

The Latins and Sabines settled on the Esquiline, the Viminale, and the Quirinale. These places were favorable for meetings of the peoples of Campania and Etruria as well as for settlement. Archaeologists have established that as early as the ninth century the Latins descended from the hills to dispose of their dead in the valley of the Forum, just one of the valleys of the Roman countryside, and thus the place entered into history. The necropolis discovered by Giacomo Boni in 1902-1905 at the foot of the Temple of Antoninus and Faustina constitutes the most ancient testament man has left there. First a necropolis, then the place of battles or more probably religious rites, the Forum increasingly came to be the site of a new form of life, the principle of a city being formed by tribes scattered throughout the hills who converged there and founded it.

Geographical formations indicated the way for paths, then for the roads that climbed up the valleys along the lines that were least steep (Via Sacra, Via Argiletus, Vicus Patricius), thereby charting the course of the extra-urban map. It was based not on a clear idea of urban design but instead on a structure indebted to the terrain. This link between the terrain and the conditions of the city's development subsequently persists throughout the whole history of the Forum; it is present in its very form, rendering it different from that of a city that is established by plan. The Forum's irregularity was criticized by Livy—"this is the reason that the ancient sewers, which formerly led through the public areas, now run here and there under private buildings, and the form of the city more resembles an occupied zone than one properly divided"²⁴—who blamed it on the speed of reconstruction after the sack of the city by the Gauls and the impossibil-

72 *The Forum of Trajan, Rome, built at the beginning of the second century A.D.*

73 *The Forum of Trajan, cross-section.*

74 *The Forum of Trajan, axonometric drawing.*

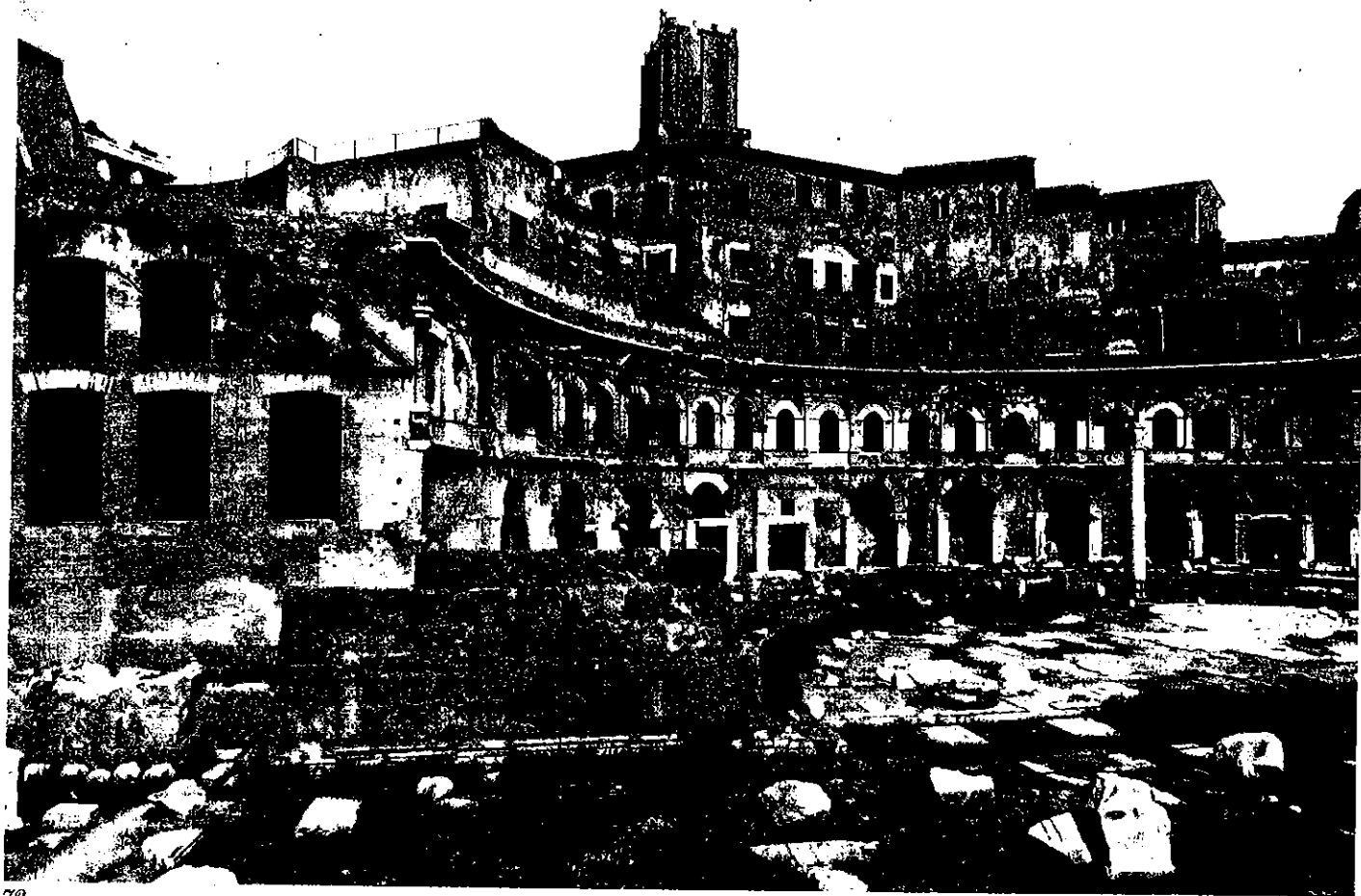
ity of applying the *limitatio*; but in fact this kind of irregularity is characteristic of the type of growth Rome underwent and is quite similar to that of modern cities.

Around the fifth century the Forum ceased its activities as a marketplace (losing a function that had been fundamental to it) and became a true square, almost according to the dictum of Aristotle, who was writing at about this time, "The public square . . . will never be sullied by merchandise and artisans will be forbidden entrance . . . Far away and well separated from it will be the place destined as the market . . ." ²⁵ Precisely during this period the Forum was being covered with statues, temples, monuments. Thus the valley that once had been full of local springs, sacred places, markets, and taverns now became rich with basilicas, temples, and arches, and furrowed by two great streets, the Via Sacra and the Via Nova, which were accessible from small alleys.

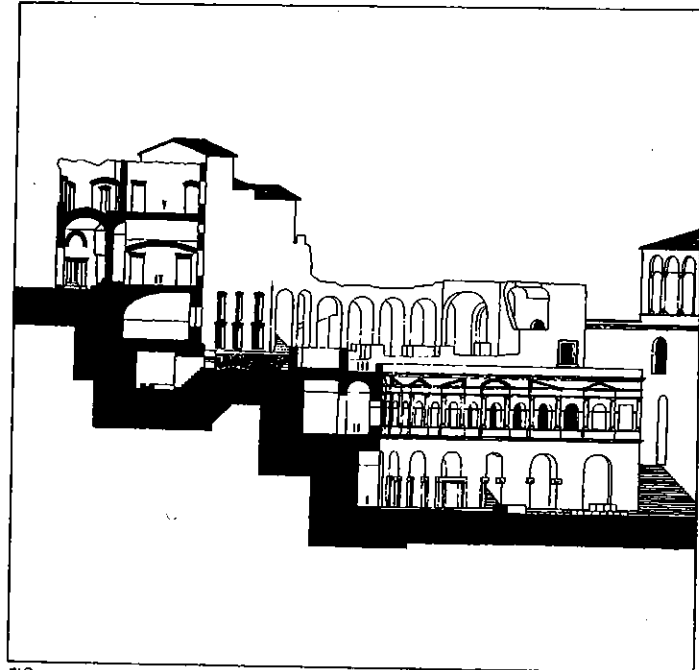
Even after Augustus's systematization and the enlargement of the central zone of Rome by the Forum of Augustus and the marketplace of Trajan, after Hadrian's works and until the fall of the Empire, the Forum did not lose its essential character as a meeting place, as the center of Rome; *Forum Romanum* or *Forum Magnum*, it became a specific artifact within the very heart of the city, a part that epitomized the whole. Thus Pietro Romanelli wrote, "On Via Sacra and the adjacent streets crowded with luxury stores, the people passed curiously without wanting anything in particular, without doing anything, only awaiting the arrival of the hour of the spectacles and the opening of the baths; we recall the episode of the 'bore' who was so brilliantly described by Horace in his satire, '*ibam forte via Sacra . . .*' The episode was repeated thousands of times a day, every day of the year, except when some dramatic event up in the Imperial palaces on the Palatine or among the Praetorian Guards succeeded in stirring up the torpid soul of the Romans again. The Forum during the Empire was still on occasion the theater of bloody events, but they were events that almost always finished and exhausted themselves in the place where they unfolded, and one could say the same for the city itself: their consequences were stronger elsewhere than here." ²⁶

People passed by without having any specific purpose, without doing anything: it was like the modern city, where the man in the crowd, the idler, participates in the mechanism of the city without knowing it, sharing only in its image. The Roman Forum thus was an urban artifact of extraordinary modernity; in it was everything that is inexpressible in the modern city. It recalls a remark of Poète's about Paris, derived from his unique knowledge of the ancient and modern history of that French city: "A breath of modernity seems to waft to us from this distant world: we have the impression that we are not much out of our own environment in cities like Alexandria or Antioch, as in certain moments we feel closer to Imperial Rome than to some medieval city." ²⁷

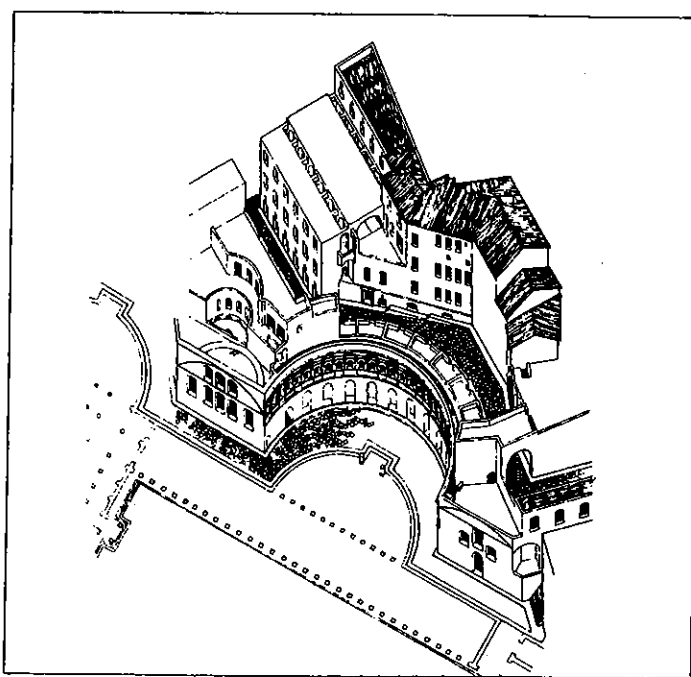
What tied the idler to the Forum, why did he intimately participate in this world, why did he become identified in the city through the city itself? This is the mystery that urban artifacts arouse in us. The Roman Forum constitutes one of the most illustrative urban artifacts that we can know: bound up as it is with the origins of the city; extremely, almost unbelievably, transformed over time but always growing upon itself; parallel to the history of Rome as it is documented in every historical stone and legend, from the Lapis Niger to the Dioscuri; ultimately reaching us today through its strikingly clear and splendid signs.



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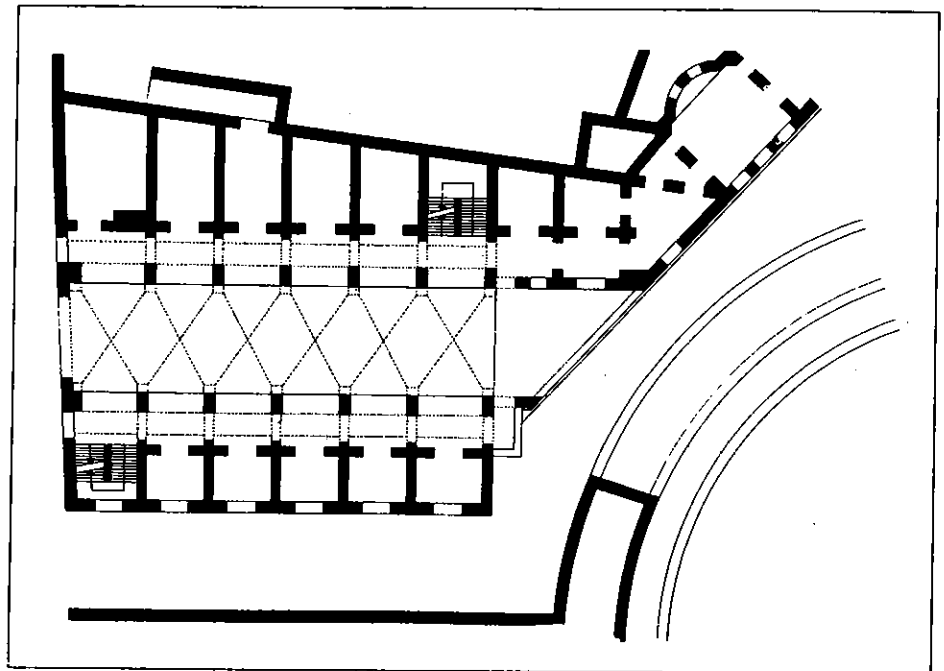
75 *The Market of Trajan.*

76 *The Market of Trajan, plan of the covered street with shops on both sides.*

77 *A part of third-century Rome, including the Stadium of Domitian, Theater of Domitian, Baths of Agrippa, and Flaminian Circus.*



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The Forum epitomizes Rome and is part of Rome and is the sum of its monuments; at the same time its uniqueness is stronger than its single monuments. It is the expression of a specific design or at least of a specific vision of the world of forms, the classical one; yet its design is also more ancient, as persistent and preexistent as the valley where the shepherds of the primitive hills gathered. I would not know how better than this to define an urban artifact. It is history and it is invention. It is also, then—and in this sense it particularly approaches the theory presented here—one of the foremost lessons of *architecture* that exists.

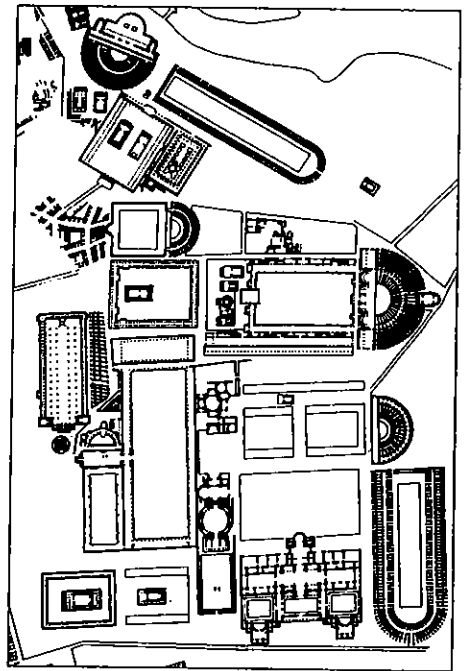
At this point it is appropriate to distinguish between *locus* and *context* as the latter is commonly understood in architectural and urban design discourse. The present analysis approaches the problem of the *locus* by attempting to set out an extremely rational definition of an artifact, approaching it as something which is by nature complex but which it is nonetheless necessary to attempt to clarify as the scientist does when he develops hypotheses in order to elucidate the imprecise world of matter and its laws. *Locus* in this sense is not unrelated to context; but context seems strangely bound up with illusion, with illusionism. As such it has nothing to do with the architecture of the city, but rather with the making of a scene, and as a scene it demands to be sustained directly in relation to its functions. That is, it depends on the necessary permanence of functions whose very presence serves to preserve forms as they are and to immobilize life, saddening us like would-be tourists of a vanished world.

It is hardly surprising that this concept of context is espoused and applied by those who pretend to preserve the historical cities by retaining their ancient facades or reconstructing them in such a way as to maintain their silhouettes and colors and other such things; but what do we find after these operations when they are actually realized? An empty, often repugnant stage. One of the ugliest things I have seen is the reconstruction of a small part of Frankfurt on the principle of maintaining Gothic volumes alongside pseudo-modern or pseudo-antique architecture. What became of the suggestiveness and illusion that seemed so much to inform the initial proposal I do not know.

Of course, when we speak of "monuments" we might equally well mean a street, a zone, even a country; but if one of these is to be preserved everything must be preserved, as the Germans did in Quedlinburg. If life in Quedlinburg has taken on a kind of obsessive quality, it is justifiable because this little city is a valuable museum of Gothic history (and an extraordinary museum of much German history); otherwise there is no justification. A typical case which relates to this subject is that of Venice, but this city merits a special treatment, and I do not wish to linger now on it. It has been much debated elsewhere and requires the support of very specific examples. I will therefore return to the Roman Forum once more as a point of departure.

In July of 1811, Count De Tournon, prefect of Rome during Napoleon I's occupation of Italy, expounded his program for the Roman Forum to Count De Montalivet, Minister of the Interior:

"Restoration work on the ancient monuments. As soon as one addresses this issue, the first thing that comes to mind is the Forum, the celebrated place in which such monuments have been amassed and associated with the greatest memories. The restoration of these monuments consists above all in freeing them from the earth that covers their lower parts, connecting them to one



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another, and finally, rendering access to them easy and pleasurable. . . .

"The second part of the project envisions the connection of the monuments to one another through an irregularly organized passageway. I have proposed a plan, drawn up under my direction, for one type of connection, to which I must refer you. . . . I will only add that the Palatine hill, an immense museum entirely covered with the magnificent remains of the palaces of the Caesars, must necessarily be comprised partly of a planted garden, a garden to enclose the monuments, for it is full of memories and will certainly be unique in the world."²⁸

De Tournon's idea was not realized. It would probably have sacrificed most of the monuments to the design of the garden, depriving us of one of the purest of all architectural experiences; but as a consequence of his idea, and with the advent of scientific archaeology, the problem of the Forum became a major urban problem related to the very continuity of the modern city. It became necessary to conceive of the study of the Forum no longer as a study of its single monuments but as an integrated research into the entire complex, to consider the Forum not as the sum of its architecture but as a total urban artifact, as a permanence like that of Rome itself. It is significant that De Tournon's idea found support and was developed during the Roman Republic of 1849. Here too it was the event of a revolution that caused antiquity to be read in a modern way; in this sense, it is closely related to the experience of the revolutionary Parisian architects. However, the idea of the Forum proved to be even stronger than political events, and it persisted with various vicissitudes even under the Papal restoration.

When we consider this problem today from an architectural standpoint, many issues come to mind which demonstrate the value of the archaeological considerations of the last century relative to the reconstruction of the Forum and its reunification with the Forums of Augustus and of Trajan, and we can see the argument for actually reusing this enormous complex. But for present purposes it is sufficient to show how this great monument is still today a part of Rome which summarizes the ancient city, a moment in the life of the modern city, and a historically incomparable urban artifact. It makes us reflect that if the Piazza San Marco in Venice were standing with the Doge's Palace in a completely different city, as the Venice of the future might be, and if we found ourselves in the middle of this extraordinary urban artifact, we would not feel less emotion and would be no less participants in the history of Venice. I remember in the postwar years the sight of Cologne Cathedral in that destroyed city; nothing can conjure up the power that this work, standing intact among the ruins, had on the imagination. Certainly the pallid and brutal reconstruction of the surrounding city is unfortunate, but it cannot touch the monument, just as the vulgar arrangements in many modern museums can annoy but still do not deform or alter the value of what is exhibited.

This recollection of Cologne naturally must be understood only in an analogical sense. The analogy of the value of monuments in destroyed cities serves mainly to clarify two points: first, that it is not the context or some illusionistic quality that enables us to understand a monument; and second, that only by comprehending the monument as a singular urban artifact, or by contrasting it with other urban artifacts, can we attain a sense of the architecture of the city.

The significance of all this is epitomized, in my opinion, in Sixtus V's plan of Rome. Here the basilicas become the authentic places of the city; together they constitute a structure that derives its complexity from their value as primary ar-

tifacts, from the streets that join them, and from the residential spaces that are present within the system. Domenico Fontana begins his description of the principal characteristics of the plan in this way: "Our Lord now wishing to ease the way for those prompted by devotion or by vows who are accustomed to visit frequently the most holy places in the City of Rome, & in particular the seven Churches so celebrated for their great indulgences and relics, has opened a number of very spacious and straight streets in many places. Thus by foot, by horse, or in a carriage, one can start from any place in Rome one likes and continue virtually in a straight line to the most famous devotions."²⁹

Sigfried Giedion, perhaps the first to understand the extreme importance of this plan, described it as follows: "His was no paper plan. Sixtus V had Rome, as it were, in his bones. He himself trudged the streets the pilgrims had to follow, and experienced the distances between points, and when, in March 1588, he opened the new road from the Coliseum to the Lateran, he walked with his cardinals all the way to the Lateran Palace then under construction. Sixtus spread out his streets organically, wherever they were demanded by the topographical structure of Rome. He was also wise enough to incorporate with great care whatever he could of the work of his predecessors."³⁰

Giedion continues, "In front of his own buildings—the Lateran and the Quirinal—and wherever his streets came together, Sixtus V made provision for ample open space, sufficient for much later development. . . . By clearing around the Antonine Column and tracing the outline of the Piazza Colonna (1588), he created the present-day center of the city. Trajan's Column near the Coliseum with its enlarged surrounding square was a link between the old city and the new. . . . The instinct for civic design of the Pope and his architect is demonstrated again in their selection of a new site for the obelisk at just the right distance from the unfinished cathedral. . . .

"The last of the four obelisks that Sixtus V was able to set up was given perhaps the most subtle position of all. Placed at the northern entrance to the city, it marked the confluence of three main streets (as well as the often projected but never executed final extension of the Strada Felice). Two centuries later the Piazza del Popolo crystallized around this spot. The only other obelisk to occupy such a dominating position is that in the Place de la Concorde in Paris, set up in 1836."³¹

I believe that in this passage Giedion, whose personal contribution to the world of architecture has always been extraordinary, says many things about the city in general that go well beyond the plan under consideration. His comment that the first plan was not a paper plan but rather a plan derived from immediate, empirical experience is significant. Significant also are his remarks that the plan was, although fairly rigid, still attentive to the topographical structure of the city, and above all, that even in its revolutionary character, or by virtue of it, the plan incorporated and gave value to all of the preceding initiatives that had validity, that *were* in the city.

Added to this is his consideration on obelisks and their locations, those signs around which the city crystallized. The architecture of the city, even in the classical world, probably never again achieved such a unity of creation and comprehension. An entire urban system was conceived and realized along the lines of both practical and ideal forces, and it was thoroughly marked by points of union and future aggregation. The forms of its monuments and its topographical form remained stable within a changing system (recall the proposed transformation of the Coliseum into a wool factory), as if with the placement of the obelisks

in their particular places the city was being conceived in both the past and the future.

It might be objected that in presenting the example of Rome I am only concerned with an ancient city. Such a criticism can be answered with two different arguments: first, that a rigorously observed premise of this study is that no distinction can be made between the ancient city and the modern one, between a before and an after, because the city is considered as a man-made object; and second, that there exist few instances of cities which display exclusively modern urban artifacts—or at least such cities are by no means typical, since an inherent characteristic of the city is its permanence in time.

To conceive of a city as founded on primary elements is to my mind the only rational principle possible, the only law of logic that can be extracted from the city to explain its continuation. As such it was embraced during the Enlightenment, and as such it was rejected by the destructive progressivist theories of the city. One thinks of Fichte's critique of Western cities, where the defense of the communitarian (*Volk*) character of the Gothic city already contains the reactionary critique of subsequent years (Spengler) and the conception of the city as a matter of destiny. Although I have not dealt with these theories or visions of the city here, it is clear how they have been translated into an idea of city without formal references, and how they contrast, more or less consciously on the part of their modern imitators, with the Enlightenment emphasis on plan. From this point of view one can also make a critique of the Romantic Socialists, the Phalansterists, and others who proposed various concepts of self-sufficient community. These maintained that society could no longer express any transcendent values, or even any common representative ones, since the utilitarian and functional reduction of the city (to dwellings and services) had become the "modern" alternative to earlier formulations.

I believe instead that precisely because the city is preeminently a collective fact it is defined by and exists in those works that are of an essentially collective nature. Although such works arise as a means of constituting the city, they soon become an end, and this is their being and their beauty. The beauty resides both in the laws of architecture which they embody and in the collective's reasons for desiring them.

Monuments; Summary of the Critique of the Concept of Context

So far in this chapter we have principally considered the idea of *locus* in the sense of a singular place and event, the relationship of architecture to the constituting of the city, and the relationship between context and monument. As we have said, the concept of *locus* must be the object of specific research involving the whole history of architecture. The relationship between *locus* and design must also be analyzed in order to clarify the apparently unresolvable conflict between design as a rational element and an imposition, and the local and specific nature of place. This relationship takes in the concept of uniqueness.

As for the term *context*, we find that it is mostly an impediment to research. To context is opposed the idea of the monument. Beyond its historically determined existence, the monument has a reality that can be subjected to analysis; moreover, we can design a "monument." However, to do so requires an architecture, that is to say, a style. Only the existence of an architectural style permits fundamental choices, and from these choices the city develops.

I have also spoken of architecture as technics. The question of technics should not be underestimated by anyone addressing the problem of the city; clearly a discourse about images is fruitless if it is not concretized in the architecture that forms these images. Architecture becomes by extension the city. More than any other art, it has its basis in the shaping and subjection of material to a formal conception. The city presents itself as a great architectural, man-made object.

We have tried to show that a correspondence exists in the city between sign and event; but this is insufficient unless we extend our analysis to the problem of the genesis of architectural form. The architectural form of the city is exemplified in its various monuments, each of which has its own individuality. They are like dates: first one, then the other; without them we could not understand the passage of time. Although the present study is not concerned with architecture in itself but with architecture as a component of the urban artifact, we must note that it would be foolish to think that the problem of architecture can be resolved solely from the compositional viewpoint or newly revealed through a context or a purported extension of a context's parameters. These notions are senseless because context is specific precisely in that it is constructed through architecture. The singularity of any work grows together with its *locus* and its history, which themselves presuppose the existence of the architectural artifact.

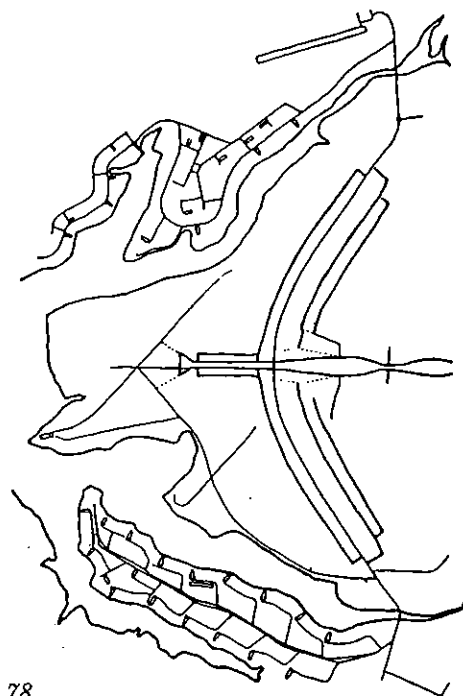
I am therefore disposed to believe that the principal moment of an architectural artifact is in its technical and artistic formation, that is, in the autonomous principles according to which it is founded and transmitted. In more general terms, it is in the actual solution that each architect gives to his encounter with reality, a solution that is verifiable precisely because it relies on certain technics (which thus also necessarily constitute a limitation). Within technics, by which is meant the means and principles of architecture, is the capacity to be transmitted and to give pleasure: "We are far from thinking that architecture cannot please; we say on the contrary that it is impossible for it not to please, so long as it is treated according to its true principles . . . an art such as architecture, an art which immediately satisfies such a large number of our needs . . . how could it fail to please us?"³²

From the initial constitution of any architectural artifact a series of other artifacts begins; and in this sense architecture is extended to the design of a new city like Palmanova or Brasilia. We cannot judge the designs of these cities strictly as architectural designs. Their formation is independent, autonomous: they are specific designs with their own history. But this history also belongs to architecture as a whole because they are conceived according to an architectural technic or style, according to principles and a general architectural idea.

Without such principles we have no way to judge these cities. Thus we can approach Palmanova and Brasilia as two notable and extraordinary urban artifacts, each with its own individuality and its own historical development. However, the architectural artifact not only embodies the structure of this individuality, but it is precisely this structure that affirms the autonomous logic of the compositional process and its importance. In architecture lies one of the fundamental principles of the city.

The study of history seems to offer the best verification of certain hypotheses about the city, for the city is in itself a repository of history. In this book we have

78 *Plan of Brasilia, Lucio Costa, 1957.*



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The City as History

made use of the historical method from two different points of view. In the first, the city was seen as a material artifact, a man-made object built over time and retaining the traces of time, even if in a discontinuous way. Studied from this point of view—archaeology, the history of architecture, and the histories of individual cities—the city yields very important information and documentation. Cities become historical texts; in fact, to study urban phenomena without the use of history is unimaginable, and perhaps this is the only practical method available for understanding specific urban artifacts whose historical aspect is predominant. We have illustrated this thesis, in part the foundation of this study, in the context of the theories of Poète and Lavedan as well as in relation to the concept of permanence.

The second point of view sees history as the study of the actual formation and structure of urban artifacts. It is complementary to the first and directly concerns not only the real structure of the city but also the idea that the city is a synthesis of a series of values. Thus it concerns the collective imagination. Clearly the first and second approaches are intimately linked, so much so that the facts they uncover may at times be confounded with each other. Athens, Rome, Constantinople, and Paris represent ideas of the city that extend beyond their physical form, beyond their permanence; thus we can also speak in this way of cities like Babylon which have all but physically disappeared.

I would now like to consider the second point of view further. The idea of history as the structure of urban artifacts is affirmed by the continuities that exist in the deepest layers of the urban structure, where certain fundamental characteristics that are common to the entire urban dynamic can be seen. It is significant that Carlo Cattaneo, with his positivist background, in his study of the civic evolution of cities which is considered the foundation of Italian urban histories, discovered a principle that could be articulated only in terms of the actual history of those cities.³³ He found in the cities the “unchanging terms of a geography prior to the Romans which remained attached to the walls of the cities (*municipi*).”³⁴

In his description of the development of the city of Milan in the period after the Empire, he speaks of the city's predominance with respect to other Lombard centers, a predominance justified neither by its size, greater wealth or population, nor by other apparent facts. It was more something intrinsic to the nature of the city, almost a typological characteristic, of an undefinable order: “This predominance was innate to the city; it was the tradition of a greatness prior to the Ambrosian church, prior to the papacy, the Empire, the Roman conquest: *Mediolanum Gallorum Caput*.”³⁵ But this quasi-mystical principle of order then became the principle of urban history, resolving itself into the permanence of civilization: “The permanence of the *municipio* is another fundamental fact and is common to almost all Italian histories.”³⁶

Even in the times of greatest decadence, as in the late Empire when the cities appeared as *semirutarum urbium cadavera* (the cadavers of half-ruined cities),³⁷ they were not in reality dead bodies, said Cattaneo, but only in a state of shock. The relationship between the city and its region was a characteristic sign of the *municipio* since “the city forms an indivisible body with its region.”³⁸ In time of war and invasions, in the most trying moments for communal liberty, the unity between the region and the city was an extraordinary force; at times

the region regenerated the destroyed city. The history of the city is the history of civilization: "In the roughly four centuries of domination by the Longobards and the Goths, barbarism grew . . . cities were not valued except as fortresses. . . . The barbarians were extinguished along with the cities to which they had laid waste. . . ."39

Cities constitute a world in themselves; their significance, their permanence, is expressed by Cattaneo as an absolute principle: "Foreigners are astonished to see Italian cities persist in attacking one another, although they are not surprised to see this between one country and another; this is because they do not understand their own militant temperament and national character. The proof that the source of the enmity that encircled Milan was its power or, more correctly, its ambition, is that many of the other cities, when they saw it destroyed and in ruins, thought that they would no longer have to fear it and joined to raise it from the ruins."<40

Cattaneo's principle can be associated with many of the themes developed here; it has always seemed to me that those very deep layers of urban life which he had in mind are largely to be found in monuments, which possess the individuality of all urban artifacts, as has been emphasized many times in the course of this study. That a relationship between a "principle" of urban artifacts and form exists in Cattaneo's thinking is apparent, even if one only examines his writings on the Lombard style and the beginning of his description of Lombardy, where the land, cultivated and made fertile over the course of centuries, immediately becomes for him the most important testimony of a civilization.

His comments on the polemics over the Piazza del Duomo in Milan bear witness, on the other hand, to the unresolved difficulties inherent in this complex problem. Thus his study of Lombard culture and Italian federalism finishes by refuting all the arguments, real and abstract, in the debate over Italian unification and over the old and new meanings that the cities of the Italian peninsula were coming to have in the national framework. His study of federalism not only allowed him to avoid all the errors endemic to the contemporary nationalist rhetoric, but also, in recognizing the obstacles to it, to see fully the new framework in which the cities had begun to find themselves.

To be sure the great Enlightenment and the positivist enthusiasm that had animated the cities had waned by the time of Italian unification; but this was not the only cause of the cities' decline. Cattaneo's proposals and the local style which Camillo Boito preached were able to give back to the cities a meaning that had been obscured. There was also a deeper crisis, which was characterized by the great debate in Italy which took place after unification over the choice of a capital. This debate turned on Rome. Antonio Gramsci's observation on this subject is most insightful: "To Theodor Mommsen, who asked what universal idea directed Italy to Rome, Quintino Sella responded, 'That of science. . . .' Sella's response is interesting and appropriate; in that historical period science was the new universal idea, the basis of the new culture that was being elaborated. But Rome did not become the city of science; a great industrial program would have been necessary, and this did not happen."<41 Sella's response, that is, remained vague and ultimately rhetorical, even if fundamentally correct; to achieve such a goal it would have been necessary to implement an industrial program without fearing the creation of a modern and conscious Roman working class ready to participate in the development of a national politics.

The study of this debate over Rome as capital is of great interest for us even today; it engaged politicians and scholars of all persuasions, all of whom were concerned over which tradition the city should be the repository of, and toward which Italy it should direct its destiny as capital. Through this historical circumstance, the significance of certain interventions which tend to characterize Rome as a modern city and to establish a relationship between its past and the images of the other principal European capitals emerges more clearly. To see this debate over the capital merely as a manifestation of nationalist rhetoric—which was undoubtedly present—means to place this important process within limits too narrow to judge it; a similar process was typical for a number of other countries in various periods.

Instead, it is necessary to investigate how certain urban structures come to be identified with the model of a capital, and what relationships are possible between the physical reality of a city and this model. It is noteworthy that for Europe, but not only for Europe, this model was Paris. This is true to such a degree that it is not possible to understand the structure of many modern capitals—Berlin, Barcelona, Madrid, along with Rome and others—without recognizing this fact. With Paris the entire historical-political process in the architecture of the city takes a specific turn; but the meaning of this relationship can only be discerned by elaborating the specific ways in which it came about.

As always, a relationship is established between the urban artifacts structuring the city and the imposition of an ideal project or general scheme, and the pattern of this relationship is very complex. Certainly there are cities that realize their own inclinations and others that do not.

The Collective Memory

With these considerations we approach the deepest structure of urban artifacts and thus their form—the architecture of the city. “The soul of the city” becomes the city’s history, the sign on the walls of the municipium, the city’s distinctive and definitive character, its memory. As Halbwachs writes in *La Mémoire Collective*, “When a group is introduced into a part of space, it transforms it to its image, but at the same time, it yields and adapts itself to certain material things which resist it. It encloses itself in the framework that it has constructed. The image of the exterior environment and the stable relationships that it maintains with it pass into the realm of the idea that it has of itself.”⁴²

One can say that the city itself is the collective memory of its people, and like memory it is associated with objects and places. The city is the *locus* of the collective memory. This relationship between the *locus* and the citizenry then becomes the city’s predominant image, both of architecture and of landscape, and as certain artifacts become part of its memory, new ones emerge. In this entirely positive sense great ideas flow through the history of the city and give shape to it.

Thus we consider *locus* the characteristic principle of urban artifacts; the concepts of *locus*, architecture, permanences, and history together help us to understand the complexity of urban artifacts. The collective memory participates in the actual transformation of space in the works of the collective, a transformation that is always conditioned by whatever material realities oppose it. Understood in this sense, memory becomes the guiding thread of the entire complex urban structure and in this respect the architecture of urban artifacts is distin-

guished from art, inasmuch as the latter is an element that exists for itself alone, while the greatest monuments of architecture are of necessity linked intimately to the city. "... The question arises: in what way does history speak through art? It does so primarily through architectural monuments, which are the willed expression of power, whether in the name of the State or of religion. A people can be satisfied with a Stonehenge only until they feel the need to express themselves in form. ... Thus the character of whole nations, cultures, and epochs speaks through the totality of architecture, which is the outward shell of their being."⁴³

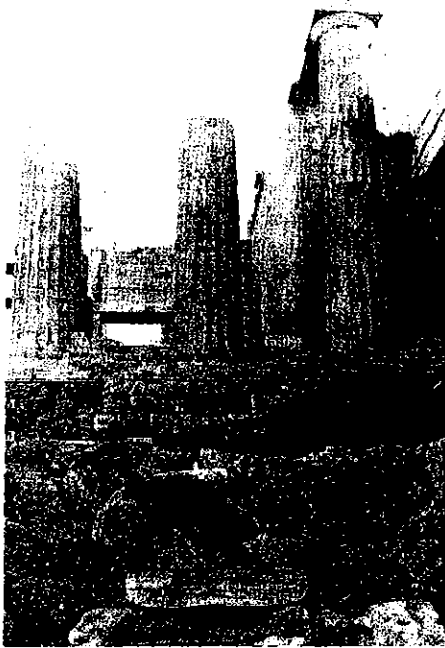
Ultimately, the proof that the city has primarily itself as an end emerges in the artifacts themselves, in the slow unfolding of a certain idea of the city, intentionally. Within this idea exist the actions of individuals, and in this sense not everything in urban artifacts is collective; yet the collective and the individual nature of urban artifacts in the end constitutes the same urban structure. Memory, within this structure, is the consciousness of the city; it is a rational operation whose development demonstrates with maximum clarity, economy, and harmony that which has already come to be accepted.

With respect to the workings of memory, it is primarily the two modes of actualization and interpretation that interest us; we know that these depend on time, culture, and circumstances, and since these factors together determine the modes themselves, it is within them that we can discover the maximum of reality. There are many places, both large and small, whose different urban artifacts cannot otherwise be explained; their shapes and aspirations respond to an almost predestined individuality. I think, for example, of the cities of Tuscany, Andalusia, and elsewhere; how can common general factors account for the very distinct differences of these places?

The value of history seen as collective memory, as the relationship of the collective to its place, is that it helps us to grasp the significance of the urban structure, its individuality, and its architecture which is the form of this individuality. This individuality ultimately is connected to an original artifact—in the sense of Cattaneo's principle; *it is an event and a form*. Thus the union between the past and the future exists in the very idea of the city that it flows through in the same way that memory flows through the life of a person; and always, in order to be realized, this idea must not only shape but be shaped by reality. This shaping is a permanent aspect of a city's unique artifacts, monuments, and the idea we have of it. It also explains why in antiquity the founding of a city became part of the city's mythology.

*The Attic historians, who tried to give their country a list of kings, made out that in Erichthonios, the second primaeval Athenian with the curious birth-legend, which we know from the stories concerning Athene, a Kekrops reappeared. ... Allegedly also, he built the shrine of Athena Polias, already mentioned, set up the wooden image of the goddess in it, and was buried on the spot. ... It seems rather that his significant name, which emphatically signifies a "chthonian," a being from the underworld, originally meant not a ruler, not a king of this our world above, but the mysterious child who was worshipped in mysteries and mentioned in seldom-told tales. ... The Athenians called themselves Kekropidai after a primaeval being, but Erechtheidai after this their king and hero.*⁴⁴

Athens



79

79 Propylaea, Athens.

80 Temple of Apollo Patroos, Athens.

81 The Parthenon, Athens.

82 Athens. Approximate plan of the city at the time of Pericles, middle of the fifth century B.C., with residential districts, dotted, surrounding the public buildings, in black.

83 Plan of the Acropolis, Athens.

Among the principal buildings:

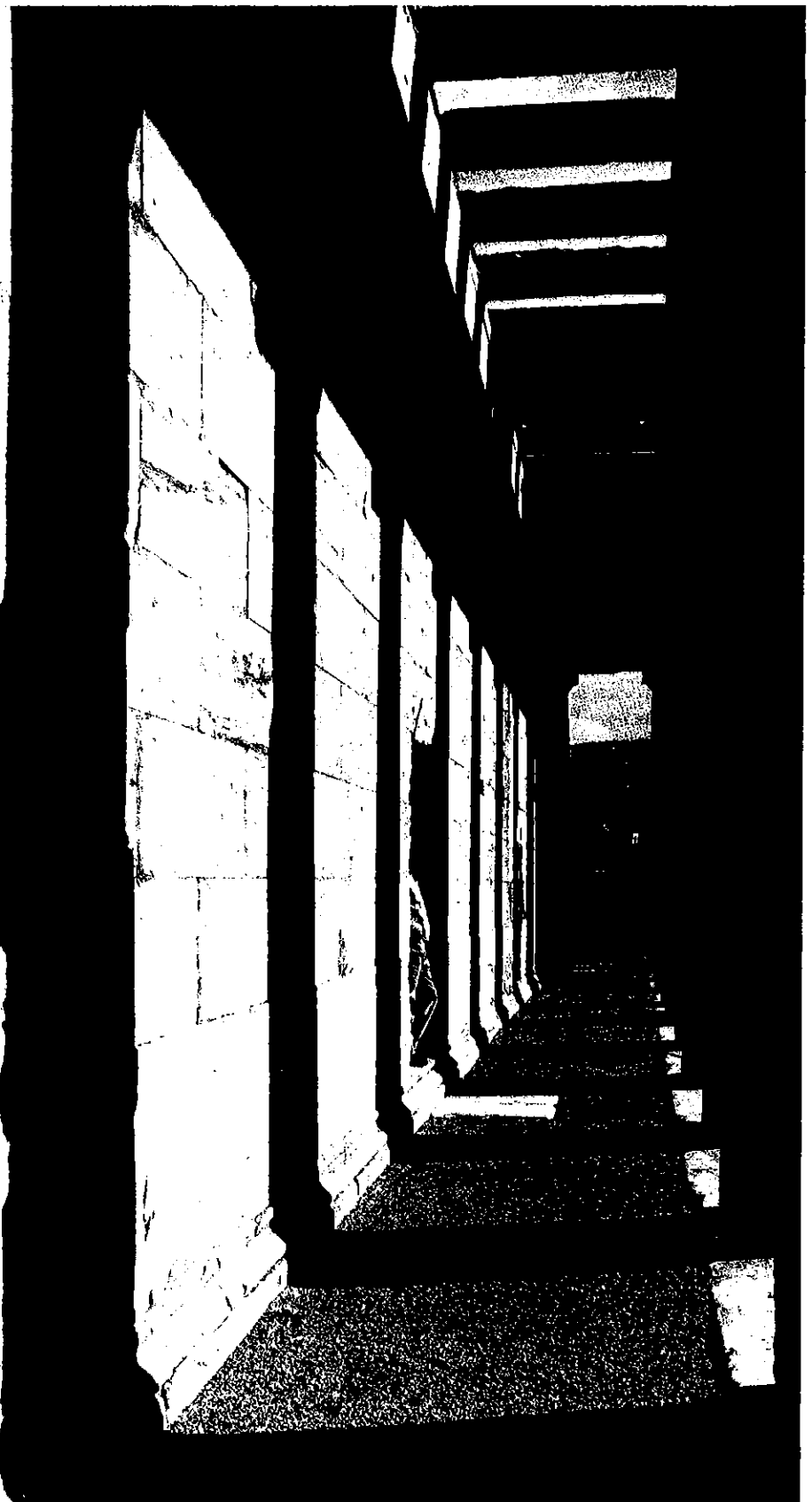
1) Beulé gate. 3) Temple of Athena Nike. 4) Propylaea. 11) Parthenon.

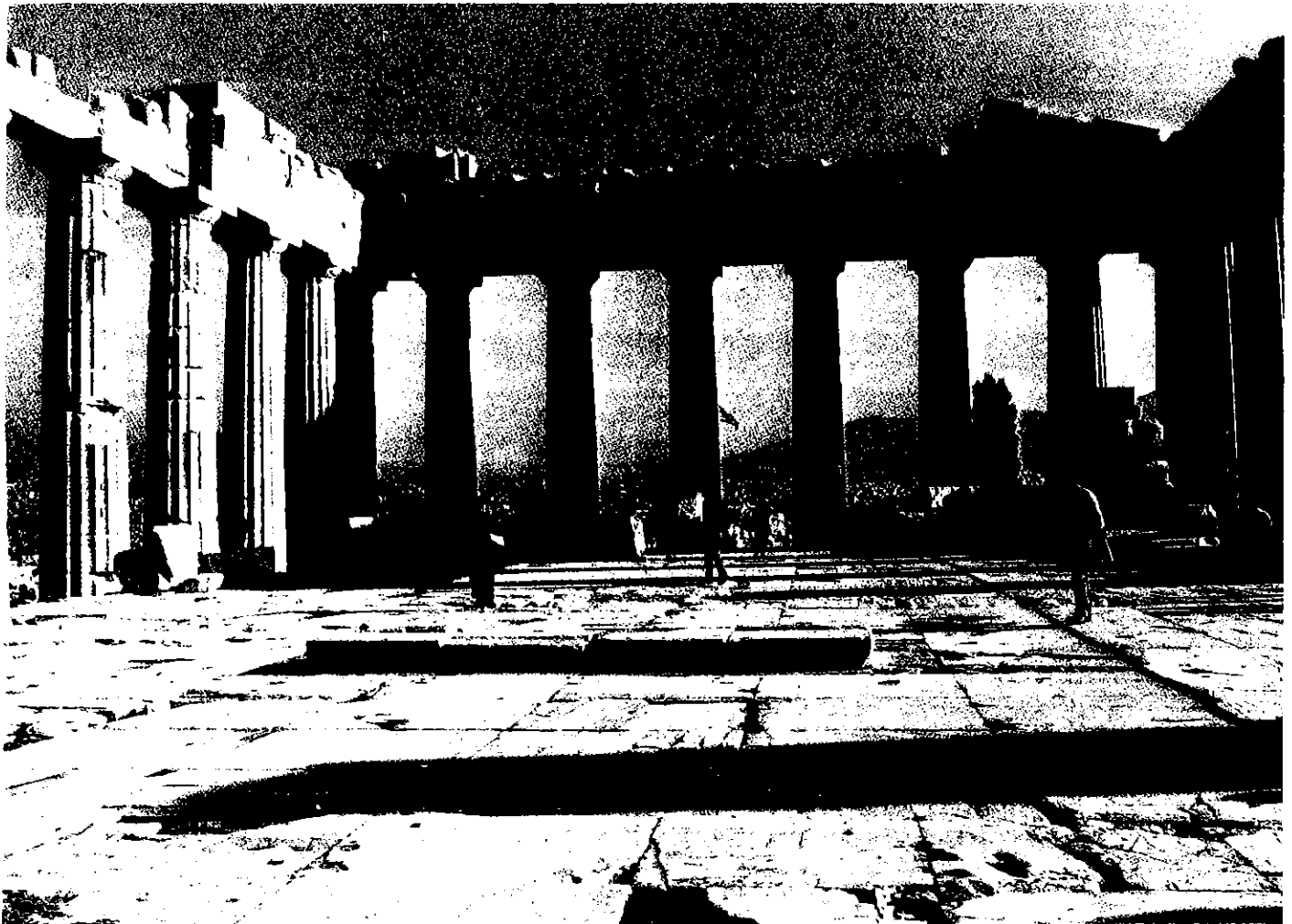
12) Archaic Temple of Athena.

14) Erechtheum. 16) Temple of Rome and Augustus. 26) Theater of Dionysus. 32) Stoa of Eumenes.

33) Odeum of Herodotus Atticus.

34) Aqueduct.

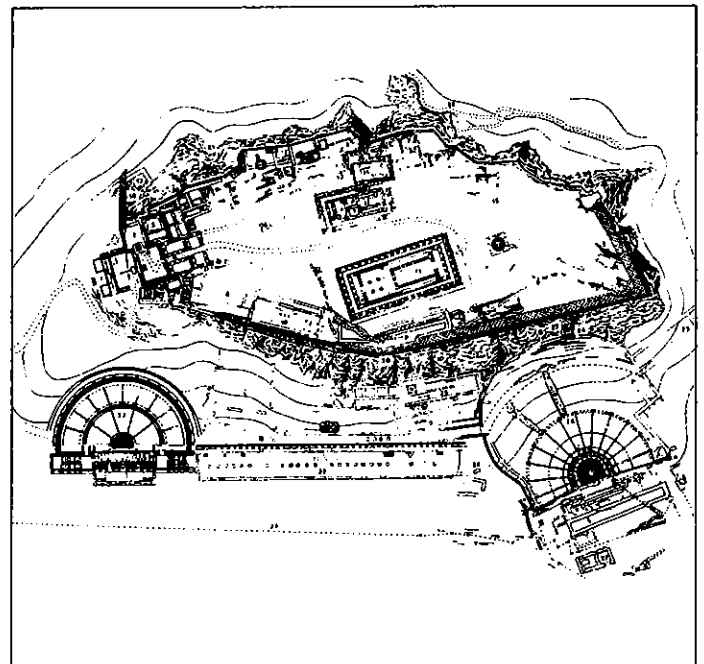




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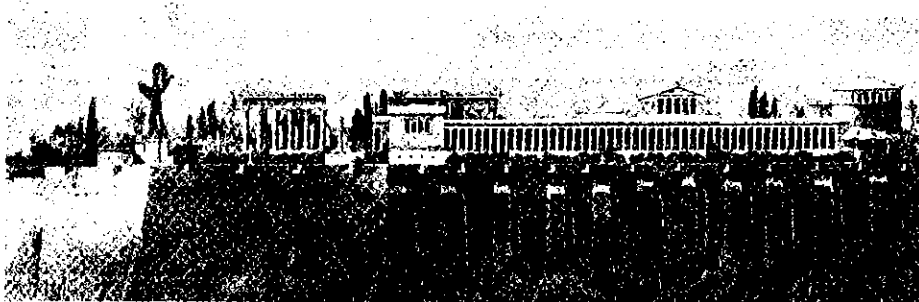
It may seem strange that this chapter, which is dedicated to history, commences with the recalling of a myth, a myth which precedes the history of a city we can no longer refrain from speaking about: Athens. Athens represents the first clear example for the science of urban artifacts; it embodies the passage from nature to culture, and this passage, at the very heart of urban artifacts, is conveyed to us by myth. When myth becomes a material fact in the building of the temple, the logical principle of the city has already emerged from its relationship with nature and becomes the experience which is transmitted.

Thus the memory of the city ultimately makes its way back to Greece; there urban artifacts coincide with the development of thought, and imagination becomes history and experience. Any Western city that we analyze has its origins in Greece; if Rome is responsible for supplying the general principles of urbanism and thus for the cities that were constructed according to rational schemes throughout the Roman world, it is Greece where the fundamentals of the constitution of the city lie, as well as of a type of urban beauty, of an architecture of the city; and this origin has become a constant of our experience of the city. The Roman, Arab, Gothic, and even the modern city have consciously emulated this constant, but only at times have they penetrated the surface of its beauty. Everything that exists in the city is both collective and individual; thus the very aesthetic intentionality of the city is rooted in the Greek city, in a set of conditions that can never recur.

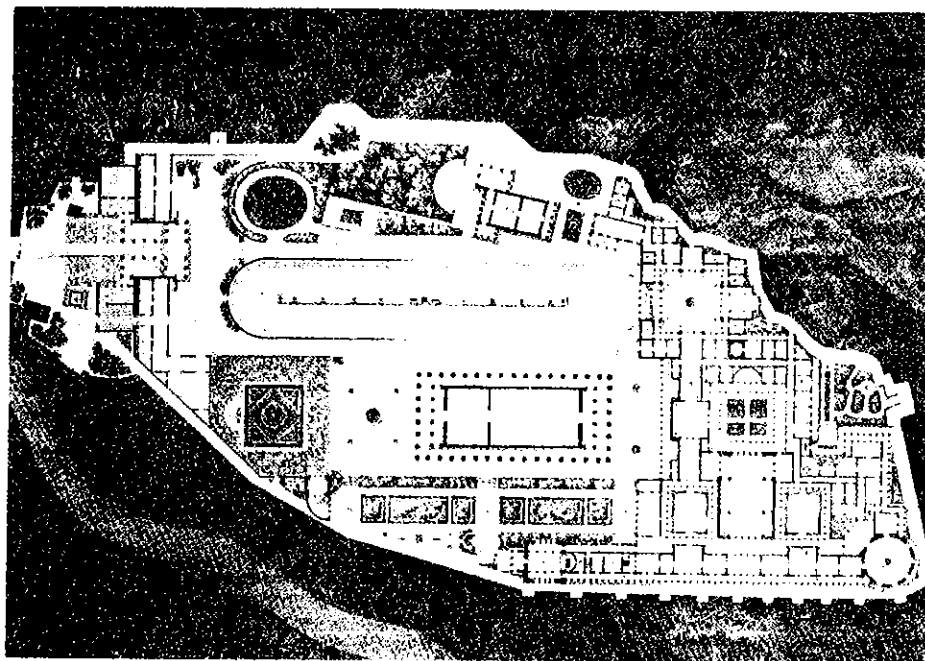
This reality of Greek art and Greek cities presupposes a mythology and a mythological relationship with nature. This must be more extensively studied through a detailed examination of the city-states of the Hellenic world. At the basis of any such study must stand the extraordinary intuition of Karl Marx, who in a passage of the *Critique of Political Economy* speaks of Greek art as the childhood of humanity; what makes Marx's intuition astonishing is his reference to Greece as the "normal childhood," contrasting it to other ancient civilizations whose "childhoods" deviated from the destiny of mankind. This intuition crops up again in the work of other scholars, applied precisely to the life and the origins of the urban artifact:

"The difficulty, however, does not lie in understanding that Greek art and the Epic are associated with certain social developments. The difficulty is that they still give us aesthetic pleasure and are in a certain respect regarded as unattainable models. A man cannot become a child again, or he becomes childish. But does he not enjoy the naïveté of the child, and does he not himself have to strive on a higher level to reproduce the child's veracity? In every epoch, does not its essential character in its natural veracity live in the nature of the child? Why should not the historical childhood of humanity, where it unfolded most beautifully, exert an eternal charm, even though it is a stage that will never return? There are ill-bred children and precocious children. Many of the ancient peoples belong in this category. The Greeks were normal children. The charm their art has for us does not conflict with the undeveloped stage of the society in which it grew. On the contrary [its charm] is inseparably linked with the immature social conditions which gave rise to it, and which alone it could give rise to, and which can never recur."⁴⁵

I do not know whether Poète knew this passage from Marx; in any case, in describing the Greek city and its formation he felt the need to differentiate it from the cities of Egypt and the Euphrates, which were examples of that obscure, undeveloped infancy, different from the normal infancy, of which Marx spoke. His statements recall irresistibly the contrasting myths of Athens and Babylon



84



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84 Project for a royal palace on the
Acropolis, Karl Friedrich Schinkel,
1834.

85 Plan of a project for a royal palace
on the Acropolis, Karl Friedrich
Schinkel, 1834.

that run through the history of mankind:

"Athens definitively offers us the lesson of a city different from those we have seen in Egypt or in the valleys of the Euphrates and the Tigris, in which the only formative element was the temple of the divinity or the palace of the sovereign. Here instead, beyond the temples—though they too differ from those of the preceding civilizations—we find as generating elements of the city the sites of the organs of a free political life (boule, ecclesia, areopagus) and the buildings connected with typically social needs (gymnasium, theater, stadium, odeum). A city like Athens represents a higher level of communal human life."⁴⁶

In the structure of Athens, those elements which we have called primary urban artifacts here are effectively defined as the generating elements of the city: namely the temple and the organs of political and social life, variously located and in continuous evolution within the residential areas. The house too participates actively in the formation of the Greek city and constitutes a basic design through which we can account for the city's principal artifacts.

To understand more clearly the value ascribed to the Greek city and its modernity as an urban artifact that persists throughout subsequent history, it is useful to recall the original structure of the Greek city, especially in comparison to other cities, including Roman ones. Beyond its complex political composition, in the sense spoken of by Poète, the Greek city was characterized by a development from the interior toward the exterior; its constituting elements were its temple and its housing. Only after the archaic period, for purely defensive reasons, were the Greek cities encircled by walls, and in no case were these the original elements of the polis. In contrast, the cities of the Orient made walls and gates their *res sacra*, the constituting and primary elements of the city; the palaces and temples within the city walls were in turn encircled by other walls, like a series of successive enclosures and fortifications. This same principle of boundaries was transmitted to the Etruscan and Roman civilizations. But the Greek city did not have any sacred limits; it was a place and a nation, the abode of its citizens and thus of their activities. At its origin was not the will of a sovereign but a relationship with nature which took the form of a myth.

But this characteristic of the Greek city—and I repeat that it is an unparalleled model—cannot be completely understood without taking into account another decisive factor. The polis was a city-state; its inhabitants belonged to the city but in large part were dispersed throughout the countryside. The city's ties with the region were extremely strong. It is useful to cite another of Cattaneo's statements, since his observations on the nature of the city shed much light on the constitution of the Greek city in particular. To Cattaneo, as also to Poète, the different destiny of the polis of the Oriental cities, which were nothing but "great walled encampments" and barbarian installations and which "lived off their neighbors" (*per vicos habitant*), seemed very clear.⁴⁷

Cattaneo correctly intuited that the walled encampments of the East were completely detached from the region around them, while in Italy "the city formed an inseparable body with its region."⁴⁸ "... This adhesion of the country to the city, where the most authoritative, wealthy, and industrious dwelt, established a political personage, an elementary, permanent, and indissoluble state."⁴⁹ We do not know how far Cattaneo took this analogy between the free communal city and the Greek city since he does not linger on this point. But this consonance between a historian's intuition and the actual structure of the city casts a positive light on the science of urban artifacts. Is not this link between the city and the re-

gion perhaps precisely what characterizes Athens as the democratic Greek city and city-state par excellence?

Athens was a city formed by citizens, a city-state whose inhabitants lived scattered over a reasonably large region that was still closely tied to the city. Even if many centers of Attica had local administrations they did not compete with the city-state. "The term *polis* that designated the city also designated the State; initially it was applied to the Acropolis, the primitive site of refuge, worship, and government, and as such the point of origin of the Athenian agglomeration. The Acropolis and the whole city in the sense of State—this is the double significance of the term *polis*."⁵⁰ Originally, then, *polis* meant the Acropolis; the word *astu* was used more generally to indicate the inhabited area.

The historical vicissitudes of Athens confirm the fundamental fact that the link uniting the Athenian citizen to his city was essentially political and administrative and not residential. The problems of the city did not interest the Athenian except from a general political and urban point of view. Roland Martin's observation on this subject is to the point; he noted that precisely because of this conception of the city as state, as the place of the Athenians, the first reflections on urban organization were of a purely theoretical type. That is, they were speculations concerning the best form of the city and the political organization most favorable to the moral development of the citizen.⁵¹ In this ancient organization it seems that the physical aspect of the city was secondary, almost as if the city were a purely mental place. Perhaps the architecture of Greek cities owes its extraordinary beauty to this intellectual character.

It is at this point, however, that it seems detached from us, from our living experience. Whereas Rome in the course of its Republican and Imperial history reveals all the contrasts and contradictions of the modern city, perhaps with a dramatic character that few modern cities know, Athens remains the purest experience of humanity, the embodiment of conditions that can never recur.

The city, like all urban artifacts, can only be defined by precise reference to space and time. Although the Rome of today and the Rome of the classical period are two different artifacts, we can see the importance of permanent phenomena linking one to the other; nonetheless, if we wish to account for the transformations of these artifacts, we must always be concerned with highly specific facts. Common experience confirms what the most thorough studies have indicated: that a city changes completely every fifty years. One who lives in the city for some time gradually becomes accustomed to this process of transformation, but this does not make it any less true. The literature of all periods is rich with descriptions and records and often nostalgic laments about the transformation of the city's visage.

Of course, there are certain epochs or periods of time in which a city is transformed especially quickly—Paris under Napoleon III, Rome when it became the capital of Italy—and when the changes are impulsive and apparently unexpected. Mutations, transformations, small alterations—all of these take different lengths of time. Certain catastrophic phenomena such as wars or expropriations can overturn seemingly stable urban situations very rapidly, while other changes tend to occur over longer periods and by means of successive modifications of single parts and elements. In all cases many forces come into play and are applied to the city, and these forces may be of an economic, political, or some other nature. Thus, a city may change through its own economic well-being, which tends to impose strong transformations on styles of life, or, in another instance, may be destroyed by war. Yet whether one considers the transformation of Paris and Rome during the eras just mentioned, the destruction of Berlin and ancient Rome, the reconstruction of London and Hamburg after huge fires had devastated them, or the bombardments of the last war, in each case the forces which governed the changes can be isolated.

An analysis of the city also allows us to see how these forces are applied; for example, by studying the history of property through deed registries we can bring to light the sequence of landholdings and trace certain economic tendencies like the acquisition of land by large financial groups which, whenever it takes place, causes the end of lot subdivision and the formation of large areas destined for totally different programs. What still must be clarified are the precise ways in which these forces are manifested and, above all, the relationship that exists between their potential effect and that which they actually produce.

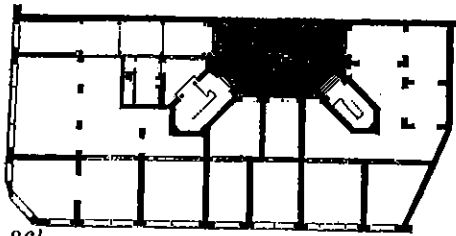
If we study the nature of speculation, for example, purely as a manifestation of certain economic laws, we will probably be able to establish several laws that are inherent to it; but these will only be of a general nature. Moreover, if we seek to discover why the application of these forces of speculation has such varying effects on the structure of the city, using the same approach, we will be even less likely to come up with an explanation. Far more useful for understanding the forces operating on the city are these two orders of facts: first, the nature of the city, and second, the specific way in which these forces produce transformations. In other words, the principal problem from our point of view is not so much to recognize the forces per se, but to know, first, how they are applied, and second, how their application causes different changes; to realize that changes depend, on the one hand, on the nature of the forces, and on the other, on the local situation and the type of city in which they arise. We must therefore establish a relationship between the city and the forces acting on it in order to recognize the modes of its transformation.

Chapter 4

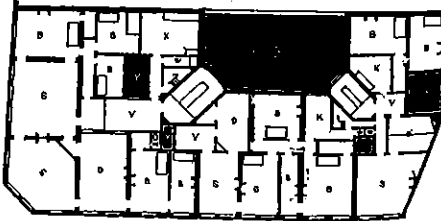
The Evolution of Urban Artifacts

The City as Field of Application for Various Forces; Economics

86a Facade of a typical Paris bourgeois apartment house constructed during the Second Empire, from an English magazine of 1858.



86b



86c

86b Typical ground-floor plan of a Paris bourgeois apartment house constructed during the Second Empire. This floor was used for commercial purposes.

86c Typical first-floor plan of a Paris bourgeois apartment house constructed during the Second Empire containing three apartments.

B) Bedroom. C) Courtyard.
D) Drawing room. K) Kitchen.
S) Large Hall. V) Anteroom.
W) Bathroom. Y) Passageway with skylight.

In the modern period a significant number of these transformations can be explained on the basis of planning, inasmuch as this constituted the physical form in which the forces controlling the transformation of the city were manifested. By planning we mean those operations undertaken by the municipality, either autonomously or in response to the proposals of private groups, which provide for, coordinate, and act on the spatial aspects of the city. We have spoken of planning especially as a modern phenomenon, but in fact cities, ever since they were founded, typically have possessed and partially grown through planning; the collective nature of urban artifacts in itself implies that a plan of some sort has existed, either at the beginning or over the course of development.

We have also seen how such plans impose themselves from a structural point of view with the same force as other urban artifacts; in this sense they too constitute a beginning. Economic forces tend to exert the major influence over planning, and it is interesting to study their application, especially in view of the fact that we have ample material on this subject. In the capitalist city the application of economic forces is manifested in speculation, which constitutes part of the mechanism by which the city grows. Here we are interested in exploring the relationship between speculation and the type of growth a city undergoes and how the city's form depends on this relationship—in other words, whether, or to what extent, the configurations of urban artifacts are dependent on the economic relationship. We know that forces like planning initiatives, expropriations, and speculation act on the city, but their relationship to real urban artifacts is highly complex.

In this chapter I wish to deal especially with two different theses that have been proposed relative to the city, taking them as fundamental references. The first of these was developed by Maurice Halbwachs and analyzes the nature of expropriations. Halbwachs maintains that economic factors by nature predominate in the evolution of the city up to the point when they give way to more general rules; however, he asserts, often the mistake is made from an economic point of view of ascribing primary importance to the particular way that a general condition arises. Economic conditions arise of necessity, in his view, and they do not change in meaning because they arise in one particular form, place, or moment as opposed to another.

For this reason, the sum total of economic factors fails to explain fully the structure of urban artifacts. But then what is the explanation for their uniqueness? Halbwachs attempts to respond to this question by examining the development of social groups in the city, and he attributes the relationship between the city's construction and its behavior to the complexly structured system of the collective memory. In his study of the nature of expropriations in Paris, *Les expropriations et le prix de terrains à Paris (1860-1900)*, which dates from 1925, the same year as his *Les cadres sociaux de la mémoire*, Halbwachs takes his scientific training as a point of departure for analyzing statistical information in masterly fashion, as he was also to do in his *L'évolution des besoins dans les classes ouvrières*.¹ Few works on the city based on these premises have been conceived with such rigor.

The second thesis to which I will refer is that of Hans Bernoulli. Bernoulli maintains that private land ownership and its parceling are the principal evils of the modern city since the relationship between the city and the land it occupies

should be of a fundamental and indissoluble character. He therefore argues that the land should be returned to collective ownership. From here, his discourse on the urban structure extends to a number of considerations that are principally architectural in nature. He sees housing, the residential district, and public facilities all as strongly dependent on the use of the land. This thesis, presented and supported with great clarity, obviously addresses one of the major categories of urban issues.²

Several theorists have asserted that state ownership of property—that is, the abolition of private property—constitutes the qualitative difference between the capitalist city and the socialist one. This position is undeniable, but does it relate to urban artifacts? I am inclined to believe that it does, since the use and availability of urban land are fundamental issues; however it still seems only a condition—a necessary condition, to be sure, but not a determining one.

Of the many theses based on economics, I have chosen to emphasize those of Halbwachs and Bernoulli because of their clarity and correspondence to the reality of the city; I believe that they can provide valuable insights into the nature of urban artifacts. Ultimately, however, behind and beyond economic forces and conditions lies the problem of choices; and these choices, which are political in nature, can only be understood in light of the total structure of urban artifacts.

At the beginning of his study,³ Halbwachs undertakes to consider the phenomena of expropriation in a large city from an economic standpoint. He starts out with a hypothesis which allows him to analyze expropriations in a scientific manner, viewing them as detached from their context; that is, he assumes that they possess their own character and constitute a homogeneous group. Thus, he can compare different cases without worrying about their differences; whether the cause of expropriation is accidental (for example, fire) or normal (obsolescence) or artificial (speculation), it does not alter for him the nature of the effect, which remains a case of either tearing down or building up, pure and simple.

The Thesis of Maurice Halbwachs

Expropriation does not occur in a homogeneous way in all parts of the city, however; it changes certain urban districts completely while respecting others more. It would seem to be necessary, then, in order to acquire a complete picture, to examine the variations from district to district; only from an overview of several districts at different periods can we measure the major variations in space and time.

There are at least two characteristics of these variations which are noteworthy. The first has to do with the role of the individual, that is, the effect exerted by a certain personality as such; the second simply with the order of succession of a given series of artifacts. "A street," writes Halbwachs, "is called 'Rambuteau,' an avenue 'Péreire,' or a boulevard 'Haussmann,' not, one would think, to render homage to these great speculators or administrators who served the public interest . . . these names are signs of origin."⁴

When municipal initiatives relate to needs that have been asserted and to proposals that have been discussed by the populace, there are many influences and factors at work, including accidental ones. But on the other hand, when the municipal government does not represent the popular will (as in Paris from 1831

to 1871), then we must attribute primary importance to ideas of aesthetics, hygiene, urban strategy, or to the practices of one or a few individuals in power. From this point of view, the actual configuration of a large city can be seen as a confrontation of the initiatives of different parties, personalities, and governments. In this way various different plans are superimposed, synthesized, and forgotten, so that the Paris of today is like a composite photograph, one that might be obtained by reproducing the Paris of Louis XIV, Louis XV, Napoleon I, and Baron Haussmann in a single image. Surely the unfinished streets and the solitude and neglect of certain districts are testimony to the diversity and relative independence of many projects.

The second characteristic we mentioned concerns the sequence in which a series of artifacts appears. Throughout history, there are constant forces that promote the building, acquiring, and selling of land, but these forces develop according to the specific directions that are offered to them, and in accordance with certain plans which they must address. These directions may change abruptly, often in unexpected ways; but when normal economic forces cannot by nature be easily modified, the intensity of their response to change may be much augmented or much diminished for reasons that are not strictly economic.

Haussmann suggested that there were certain tactical reasons, among others, for the transformation of Paris, for example the destruction of districts that were not favorable for assembling troops. That such a consideration should arise at the time of an authoritarian and non-popular government is not surprising, nor are others: for example, the attractions of working-class employment and rich prospects for speculators, both equally advantageous to a regime which sought to compensate for the minimum of political rights it offered by affording a maximum of material prosperity. Thus the large-scale expropriations in Paris under this regime are explicable on the basis of politics: the apparently decisive triumph of the party of order over that of revolution, the bourgeoisie over the working class.

Another characteristic example of the role played by specific historical circumstances during the revolutionary period in Paris is the planning of the great boulevards following the nationalization of emigrant and clerical property. The Commission of Artists simply marked out these large streets on the map, making use of the lands made available by the acquisition of the enormous new national property. The study of the transformations of Paris is thus bound up with the study of French history; the form of the city's transformations depends on both its historical past and the deeds of certain individuals whose wills acted as historical forces.

Acts of expropriation seem to differ by their very nature from all other acts which occur at the beginning of property changes. Related to this hypothesis is the fact that they generally do not occur in isolation; they are not so much focused on this street or that group of houses as connected to an entire system of which they are only one part. They are involved in the *tendencies* of the city's development.

In all cases where historical reasons are given as explanations for the transformations of Paris, there are also different possible explanations which relate the economic factors of expropriation to other economic factors. We have mentioned the nationalization of clerical property; of course, not all of the streets projected by the Commission of Artists were realized, but the expropriation of convent

property in itself was an economic issue. These properties constituted impediments, even in terms of their physical form, to the development of the city, and thus even under different circumstances, it is probable that they would have been expropriated by the king or sold by the clergy in a similar way to that which occurred later with the railroads.

As was pointed out by Halbwachs, it is not so much the precise way that a general condition arises which is significant; a condition arises out of necessity, and its meaning does not change because it arises in one particular form, place, and moment as opposed to another. This can be said of Haussmann's plan and all the military, political, and aesthetic arguments we have cited for it. The assembling of troops was not in itself responsible for modifying the street, not in its topographical form nor in its economic character, and thus it is no more necessary to account for it than it is for the chemist to account for the form and size of the test tube he uses for his experiments. Even if motives of order, hygiene, or aesthetics intervened, as they did not result in any important modification which can be explained on the basis of economics, the economist need not be concerned with them. Either these factors had a certain effect and therefore they cannot be ignored, or, after thorough research in which all the economic causes have been eliminated, their existence can be said to have had a "residual effect."

This hypothesis of the purely economic character of expropriations is predicated on their independence with respect to individual artifacts and political history. Moreover, since expropriations have a rapid and comprehensive effect, their different components being realized simultaneously and not successively, it is the total act that reveals the direction and influence of the forces present in a preceding period. The specific way in which expropriations occur, then, is unimportant, even from a legal point of view.

Whenever a consciousness of a collective need takes shape and becomes clear, total action can originate. Obviously the collective consciousness can be mistaken; the city can be induced to urbanize lands where there is no tendency to expand or to build streets where none are really needed, and such hastily created streets can remain deserted. (The causes of mistakes are many; for example, the creation of a street for emergency reasons could lead to the construction of others by analogy.) Thus expropriations themselves undergo a normal process of evolution.

Accordingly, Halbwachs does not consider expropriations as abnormal or extraordinary phenomena, but instead chooses to study them as the most typical phenomena of urban evolution. Since it is through expropriations and their immediate consequences that the economic tendencies by which the evolution of urban land can be analyzed are manifested in a reasonably condensed and synthetic form, the study of expropriations provides one of the clearest and surest points of view for examining a highly complex totality of phenomena.

Because of the importance I attribute to this thesis of Halbwachs, I would like to summarize the three elements that I consider fundamental:

1. the relationship between, and also the independence of, economic factors and the design of the city;
2. the contribution of the individual personality to urban changes, its nature and its limits; thus also the relationship between the precise, historically determined means by which a condition arises and its general causes;
3. urban evolution as a complex fact of social order which tends to occur accord-

Further Considerations on the Nature of Expropriations

ing to highly precise laws and orientations of growth.

To these three points I should add the importance of expropriations as a decisive moment in the dynamic of urban evolution, a valuable concept which Halbwachs established as a fundamental field of study.

One could study many different cities on the basis of Halbwachs's thesis. I attempted something along these lines in a study of one Milanese district,⁵ stressing the importance of certain apparently accidental occurrences in the successive evolution of the city, such as the destructive effects of war and bombarding. I believe it can be shown, and I have attempted to do so in this study, that occurrences of this type only accelerate *certain tendencies that already exist*, modifying them in part, but permitting a more rapid realization of intentions which are previously present in economic form and which would otherwise still have produced physical effects—destructions and reconstructions—on the body of the city through a process which in effect would be hardly different from that of war. It is nonetheless evident that the study of these occurrences, because of the rapid and brutal form in which they arise, permits one to see far more vivid and immediate effects than those which appear as the outcome of a long series of historically sequential facts of land ownership and the evolution of the city's real-estate patrimony.

A modern study of this type derives considerable support from the study of urban plans—plans for expansion, for development, and so on. In substance these plans are closely linked to expropriations, without which they would not be possible and through which they are manifested. What Halbwachs stresses relative to the two important plans for Paris—that of the Commission of Artists and that of Haussmann (and in both cases the form of these plans does not differ substantially from that of many plans conceived under an absolute monarchy)—is true for most if not all cities. I have elsewhere attempted to relate the evolution of the urban form of Milan, for example, to the reforms promulgated by first Maria Theresa and then Joseph II of Austria and finalized under Napoleon. The relationship between these economically motivated initiatives and the design of the city is clearly apparent; above all it demonstrates the primary importance of the economic facts of expropriation in relation to the architectural artifacts of form. It also sheds light on how by nature expropriations—disregarding for the moment their political aspect, that is, how they can be used to the advantage of one class or another—are a necessary condition in the overall evolution of the city and are deeply rooted in urban social movements.

It can be shown how the Napoleonic Plan for Milan,⁶ which was one of the most modern plans created in Europe despite its derivation from that of the Parisian Commission of Artists, explains, in its very physical form, the long series of expropriations and dispossessions of ecclesiastical holdings by the Austrian government. This plan thus is simply the precise architectural form of a particular instance of expropriation and can be studied as such; within these limits, if they can be so described, our study would benefit from an understanding of neoclassical culture, of the different personalities of architects like Luigi Cagnola and Giovanni Antolini, and of a whole series of spatial proposals which, independent of economic considerations, preceded this plan and were resolved in it.

The relative autonomy of these spatial proposals can be measured on the basis of how strongly they survive in subsequent plans or link up with preceding ones

but do not promote economic transformations. Thus, the success of *strada Napoleone*, at that time via Dante, is entirely comprehensible within the dynamics of urban life. The same dynamics that allowed the Beruto Plan to succeed in the northern section of the city insured its failure in the southern one, where its hypotheses were either too advanced or too remote from economic realities.

The economic dynamic erupted decisively following the acts taken by Joseph II of Austria during the twenty-year period from 1765 to 1785 to suppress religious orders. It was a matter of both politics and economics; the suppression of the Jesuits, of the Inquisition, and of the innumerable bizarre religious congregations which were flourishing in Milan as in few other cities, even in Spain, not only meant a step toward civic and modern progress but also signaled concretely the possibility for the city to take charge of vast urbanized areas, to systematize streets and rectify irregular situations, and to construct schools, academies, and gardens. The public gardens were set up directly next to the gardens of two convents and the Senate.

The Bonaparte Forum was certainly not an architectural necessity, but it was born of the city's need to give itself a modern face by establishing a business center for the new bourgeoisie that was in power. This need was independent of its form and the specific topographical, architectural, and historical conditions by which its location was chosen.

Antolini's idea remained a purely formal one, but as such, in a totally different political context, it was revived in the Beruto Plan with notable prominence, except that for reasons which once again were economic, the business center was no longer the Bonaparte Forum, and therefore, because of the complex nature of urban artifacts, the plan had a different impact on the urban equilibrium. This economic impact, I wish to emphasize, was independent of its design.

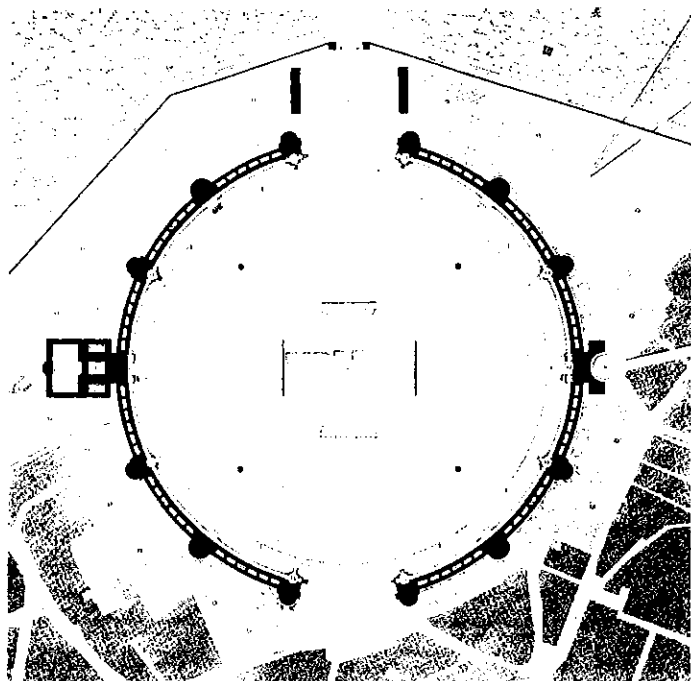
The way that Halbwachs develops his theory helps us to perceive, conversely, the confusion that generally arises in the theories of those who make presuppositions that are not at all scientific and ignore the nature of urban artifacts, blaming ruthless demolitions, grandiose plans, and so forth. In this regard, the way Haussmann's work is normally analyzed is typical. To avail ourselves of Halbwachs's point of view, one may or may not approve of Haussmann's plan for Paris when judged solely on the basis of its design—although naturally the design is very important, and it is certainly one of the things I want to consider here—but it is equally important to be able to see that the nature of Haussmann's plan is linked up with the urban evolution of Paris in those years; and from this standpoint the plan is one of the greatest successes ever, not only because of a series of coincidences but above all because of its precise reflection of the urban evolution at that moment in history.

The streets Haussmann opened followed the real direction of the development of the city and clearly acknowledged the role of Paris in the national and international setting. It has been said that Paris is too big for France and at the same time too small for Europe; this observation illustrates the fact that one cannot always estimate the size of a city or the workings of a plan, whatever the actual success of this plan, from a study of the urban condition that this plan encompasses. Thus, on the one hand, Bari, Ferrara, Richelieu; on the other,



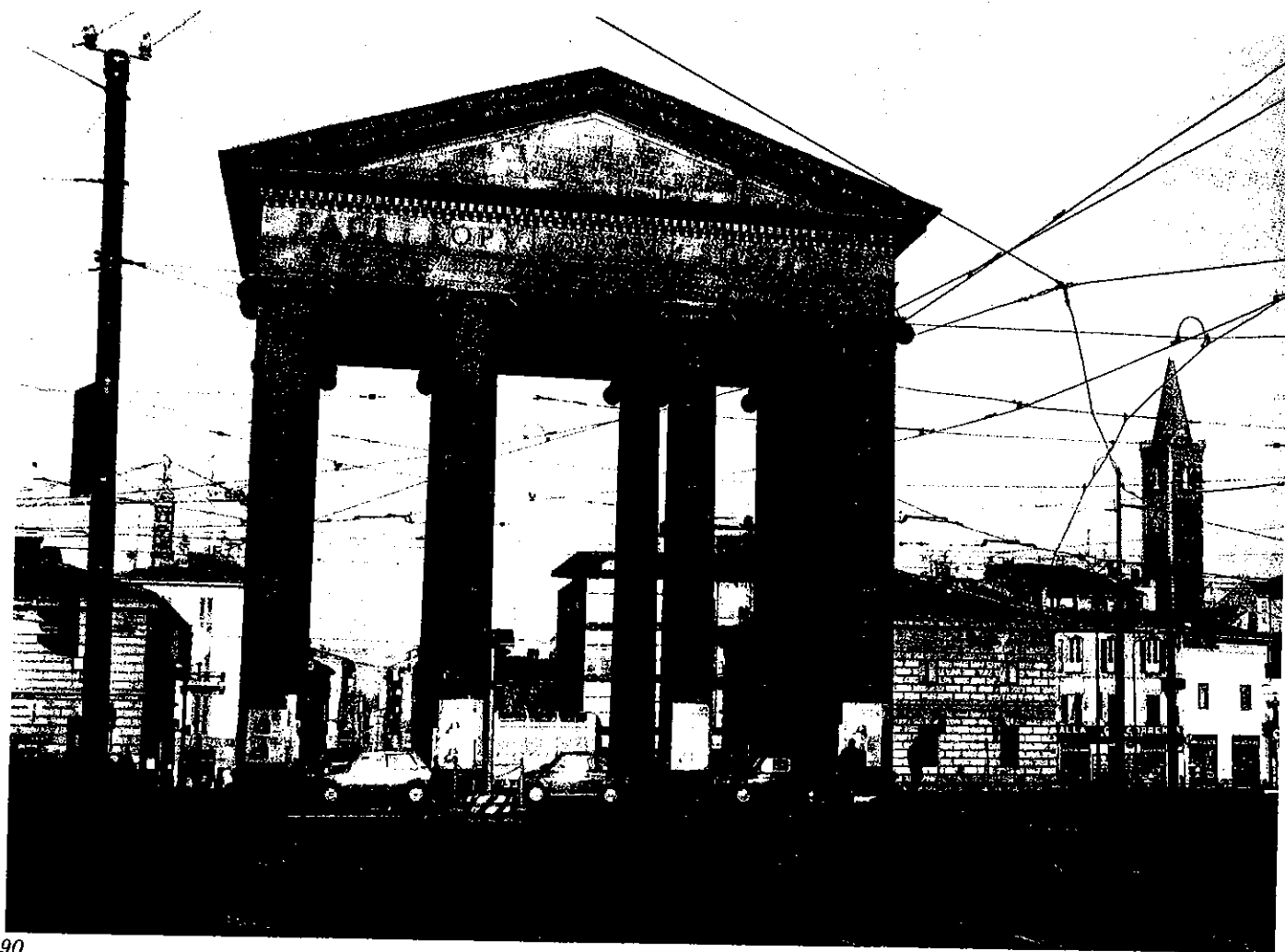
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88 Sectional rendering of Bonaparte Forum, Milan, Giovanni Antolini, 1801.

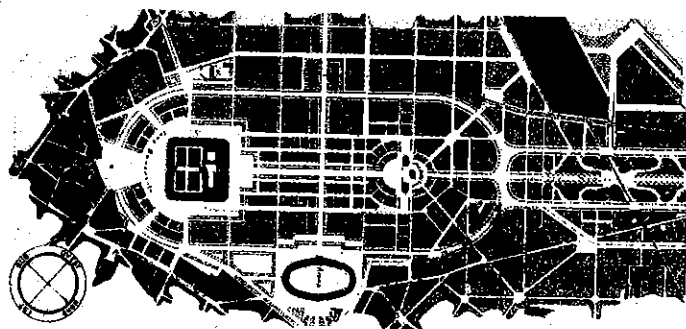


89 Plan of Bonaparte Forum, Milan, Giovanni Antolini, 1801.

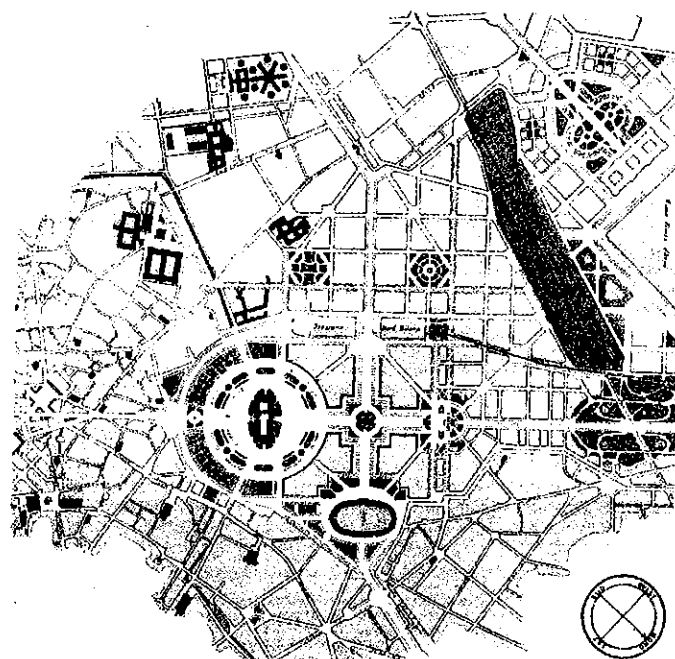
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91a



91b



90 Porta Ticinese, Milan,
Luigi Cagnola.

91a, 91b Two of the variants proposed
by the engineer Cesare Beruto,
designer of the first master plan of
Milan, for the organization of the
zone of the Castle, 1884.

92 Corso Vittorio Emanuele, Milan,
beginning of the twentieth century.

Barcelona, Rome, Vienna: in the former, the plan has undergone the effects of time or has even become only an emblem, an initiative not translated into reality except in an occasional building or street; in the latter, the plan has channeled, guided, and often accelerated the propulsive forces that act on, or are about to act on, the city. In still other instances, the plan tends to be projected toward the future in a particular way; for example, a plan which has been judged unfeasible at the time of its conception and whose initial manifestations have been opposed may then be recuperated in subsequent periods, demonstrating its foresight.

Certainly in many cases the relationship between economic forces and the development and design of the plan is not easy to define; one very important, and insufficiently known, example is that of the Plan Cerdá for Barcelona of 1859.⁷ This plan, extremely advanced technically and entirely responsive to the economic transformations that were pressing upon the Catalan capital, was extensive and appropriate even if it offered too grandiose a forecast of the city's demographic and economic development. Not realized as it should have been, or in a strict sense not at all, the plan still determined the subsequent development of Barcelona. In fact, the Plan Cerdá was not realized precisely where its technological visions were too advanced for the times and where the solutions it offered demanded a level of urban evolution far superior to the existing one. Certainly more advanced than Haussmann's plan, it would have been difficult to realize not only for the Catalan bourgeoisie but for any other European city.

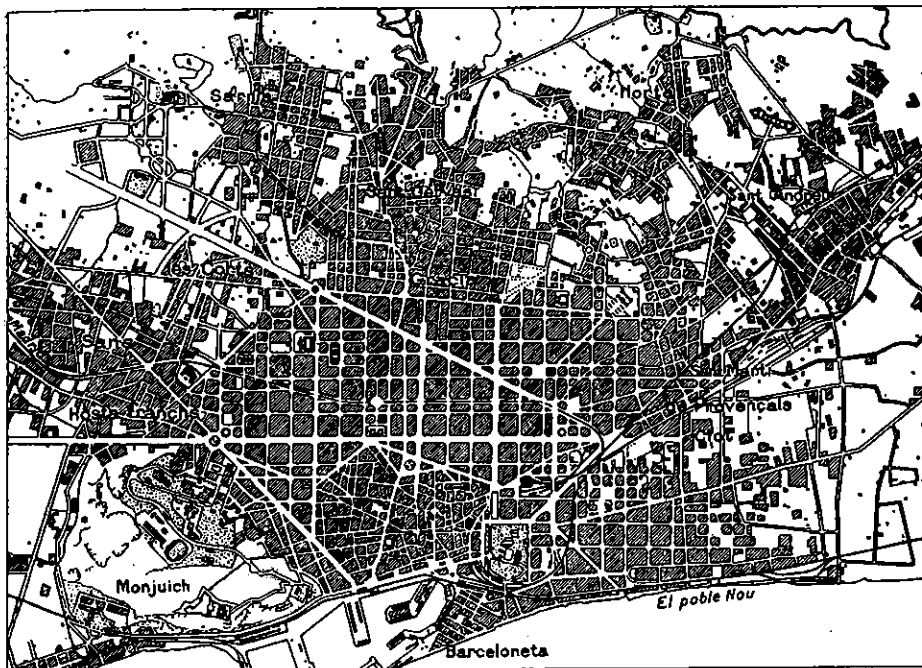
To describe briefly the plan's main characteristics, its viability was based on a general grid that allowed for a synthesis of the urban whole, as in the case of Haussmann's plan, and within this, an autonomous system of districts and residential nuclei. The plan thus presupposed not just more advanced technical but also certain political conditions, and fell short precisely on these points, as in the autonomous residential complexes it projected which demanded greater administrative attention and which were partially revived by the GATEPAC group in the 1930s.

At the same time, as Oriol Bohigas has rightly noted, the plan was untenable where it presupposed a very low density, a hypothesis entirely counter to the way of life and the very structure of Mediterranean cities. However, where it transformed the *illes*, or city blocks,⁸ into massive constructed complexes and accepted the general principle of the rectangular fabric, it ended up lending itself magnificently to the aims of speculation, and as such only came to be realized in a degraded form. One can see in this case how complex the relationship between the design and the economic situation was—which does not contradict Halbwachs's thesis; quite the contrary.

Subsequently, the urban growth of Barcelona occurred as it could, and the Plan Cerdá was used to respond to that growth; it did not have the power to transform the city's political-economic objectives and was little more than a pretext or an image to which to conform. Its importance, however, independent from and unrelated to the economic forces operating in Barcelona, was that it represented a moment in the city's history and was taken as such.

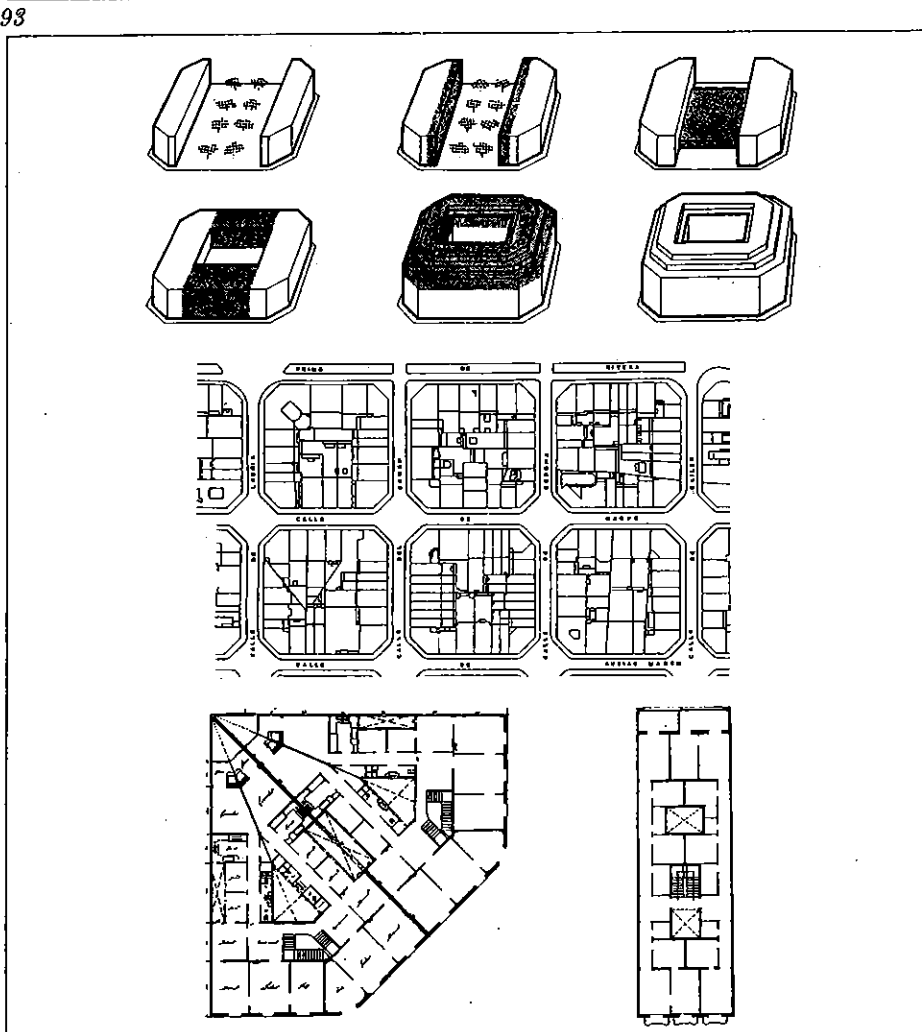
As we have said, since the city is a complex entity, naturally it can coincide (and sometimes does so perfectly) or not coincide with a plan that issues from it. When it does not, it is either because of deficiencies in the plan or because of the

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93 Plan of Barcelona.

94 Blocks in the zone of Barcelona that was to be enlarged under the plan of Idelfonso Cerdà, 1859. Above: The progressive increase in density of a typical block. Middle: Several blocks as shown in a 1969 registry map. Below, left: Plan of a corner building, Calle Lauria no. 80, Juli M. Fossas i Martinez, 1907; right: Casa Lamadrid, Calle Gerona no. 113, Lluís Domènech i Montaner, 1902.



particular historical situation in which the city finds itself. In each case the relationship can be judged only outside of the actual development. Thus the Duke of Este's plan for Ferrara must be judged apart from its failure to be realized and its lack of provisions for development; otherwise we would have to say that it was worthless because of these shortcomings.

Another obvious example is the Muratti plan for Bari;⁹ this is a typical example of expropriation as defined by Halbwachs, and it is characterized here as elsewhere by a series of precise political and historical circumstances. What is interesting in this case is that the plan projected under the Bourbons and approved in 1790 saw a subsequent development which, although subjected to various transformations, lasted up until 1918. Here too, and still today, the plan was altered in various ways precisely where it worked against speculation and in favor of isolated blocks, but it survives not as a mere impression recognizable to the historian but as the concrete form of the city, constituting the typical pattern of Bari and characterized by the separation between the old city and the modern Muratti *borgo*, a pattern also immediately recognizable elsewhere in Pugliese cities.

At the same time, it has rightly been observed that we should study not only how cities evolve but also *how they decline*; from this perspective we could undertake a study along the same lines as that of Halbwachs, but in the opposite direction. For example, to say that the city of Richelieu,¹⁰ which was associated with the great cardinal-minister, declined rapidly with the disappearance of this personage from the political scene means nothing; he may have been the one who prompted the establishment and actually founded this urban center, but the city then should have been able to continue to grow on its own accord. The centuries of decline of certain large cities as well as certain small ones have modified these urban structures in different ways without damaging their original quality; otherwise we would have to say that there never was an urban life in cities like Richelieu and Pienza simply because they started out as artificial cities.

The same can be said of Washington, D. C., or of St. Petersburg. I do not think that the difference of scale, often extreme, between such cities matters here; actually it confirms the fact that we must ignore size in studying urban artifacts if we wish to arrive at a scientific framework for the problem. St. Petersburg can be considered at its beginning an arbitrary act of the czar; and the continuous bipolarity in Russia between Moscow and what is now Leningrad suggests that the growth of the latter to the rank of a capital and then to a great world metropolis was hardly uneventful. The real facts of this growth are probably as complex as those of the decline of Nizhnii Novgorod in Moscow or, to take another example, the rise of Milan to predominance over Pavia and other Lombard cities after a certain time.

Land Ownership

In *Die Stadt und ihr Boden*,¹¹ Bernoulli illuminated one of the most important, perhaps the fundamental, problem of the city, one which constitutes a strong constraint on urban development. In this modest study, which is clearer and more basic than most of the articles and research undertaken subsequently on the problem, Bernoulli focuses on two principal issues. The first concerns not only the negative character of private property ownership but also the harmful consequence of its extreme division; the second, closely linked to this, sheds light on the historical reasons for this situation and its consequences after a cer-