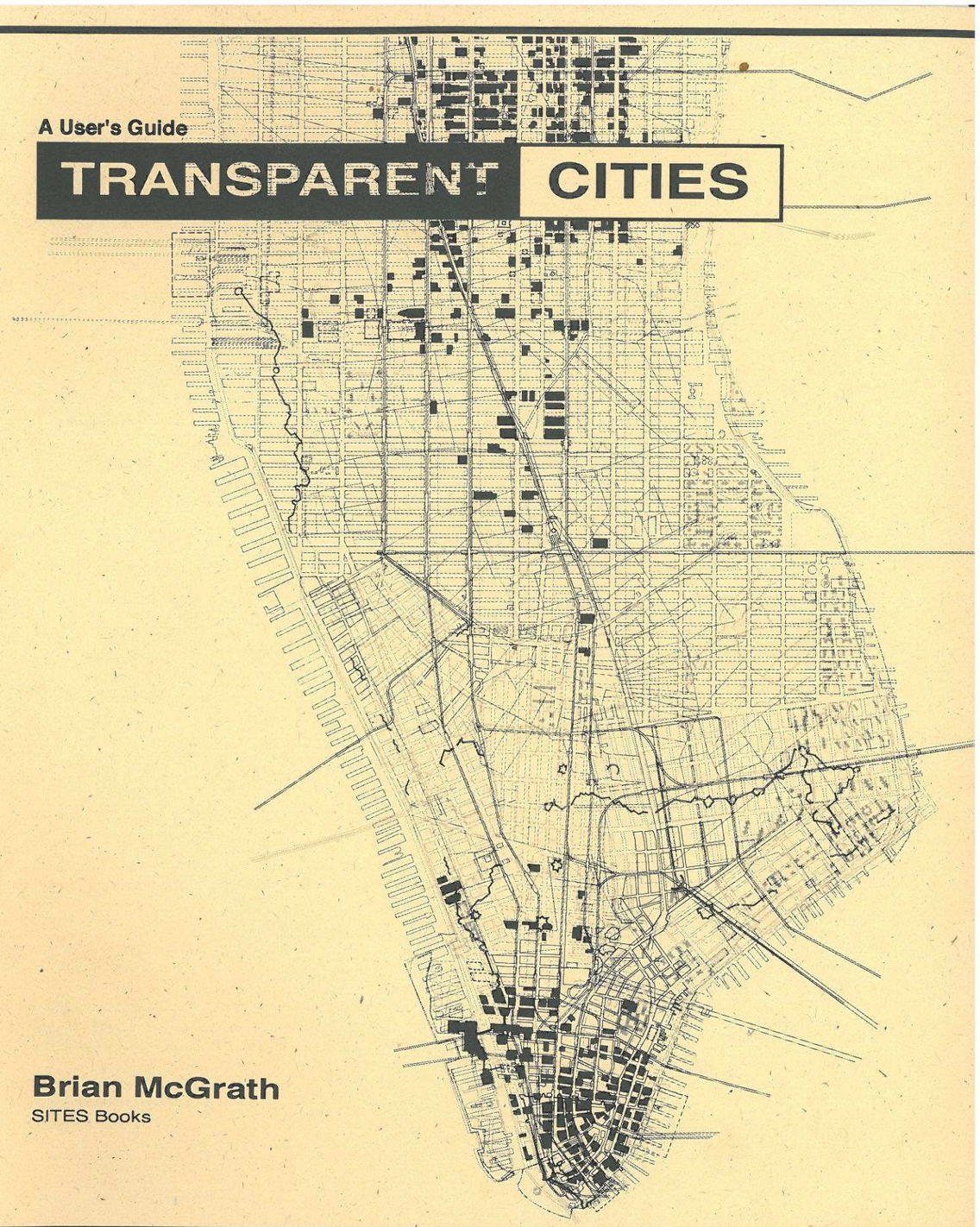
A User's Guide

TRANSPARENT CITIES



Brian McGrath

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I first lived in Rome in 1985, with the idea of "drawing the city in all its aspects." My constant companion and partner in this endeavor was Ana Marton, who continues to be a source of great inspiration. Many students from the New Jersey Institute of Technology and Parsons School of Design also continue to widen and challenge my visions of the city, especially those dedicated students who accompanied me to Rome for three summers in the years 1987-1990. Jamie Malanga helped me with cartographic research in New York, Laura Pecora with photographs, and Antonio Palladino with translation. Finally, I wish to gratefully acknowledge the friendship and support of John Wiggins, who contributed enormously to every step of this book.

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FOREWORD

This box contains twenty-four plates that map the fluid space of *Transparent Cities*. The drawings were produced following cartographic research of historical and contemporary maps of both Rome and New York. Fragmentary information from selected sources was redrawn and reproduced on acetate to facilitate the process of overlaying differing maps at a consistent scale. The accompanying text guides the reader/viewer through *Transparent Cities*, by means of an essay interspersed with quotations, photographs, views, and maps, that depict Rome and New York in transition. Intercut in the text are suggested overlays that the reader can use to make some of the hundreds of possible combinations these maps can generate—chronologically, rationally, poetically, or nonsensically.

The idea of mapping Rome and New York as analogous cities emerged directly from my personal experience of living and working in those cities. From 1985 to 1990, as a teacher of architecture, I was also able to view Rome and New York from many students' shifting, simultaneous vantage points. Roving bodies and many eyes mapped these cities complexly, undermining the authority of a single, authoritative gaze. This cinematic view collapsed time and space: ancient Rome and modern New York, cities of accumulation, fragmented and recombined in my imagination.

These drawings assimilate many techniques and sources for representing the city that I was exposed to as a student of architecture. For example, Edmund Bacon's diagrams in *Design of Cities* and Colin Rowe's "figure/ground" technique were the drawings through which I first looked at the European city through the gaze of emperor or pope. At the Institute for Architecture and Urban Studies, however, we view the city itself as a multicultural representation that could be read as a text. Moreover, Venturi and Scott Brown's drawings of Las Vegas and Kevin Lynch's of Boston capture the elusive quality of the American city through multiple mapping rather than by seeing the city as a single Gestalt.

The map is not the territory, but perhaps the unlimited combination of all possible maps can conceptually describe that domain. The city of one's imagination constantly collides with the city we experience physically. Such visions of the city have been explored primarily through the language of cinema, and Felini's *Roma* remains for me as vivid a map of 20th-century Rome as Nolli's is of the 18th-century city.

INTRODUCTION

Impermanent Cities

Changes are continually made within the same place. An apartment house is bought to be demolished, and a larger one is built on the same plot. After five years the new house is sold to a contractor who tears it down to build a third one. The result is that in the States a city is a moving landscape for its inhabitants, whereas our cities are our shells.

J. P. Sartre[1]

Sartre observed the impermanence of the American city in 1946 from the vantage point of the "unchanging" European city. Fifty years later urban impermanence has become a global phenomenon. Late 20th-century developments in communication, information, and transportation technologies have created "moving" landscapes, both within and far outside city centers worldwide.

Of course, growth and decay have always been part of the history of cities; never fixed in time, enduring cities have been in a state of slow transformation, evolving imperceptibly. However, in the emerging urban landscape, the pace of change has accelerated: the contemporary city now exists in an impermanent state between abandonment and reconstruction, changing dramatically during one's lifetime. In this impermanent city, one lives between new and old, past and future, growth and decay, simultaneously experiencing the exhilaration of change and the confusion of dislocation.[2]

Pennsylvania Station; Madison Square Garden

Renaissance and Constantinian Basilicas, 153

Contested Cities

The physical instability of the impermanent city has intensified the political, social, and ethnic collisions within urban space. The contemporary city has no walls. Uncontained, the modern citizen and city are exposed (over-exposed according to Paul Virilio[3]). Encompassing huge territory and diverse populations, the city today is a place of cultural diversity and conflict rather than of homogeneity and consensus.

But cities have always been the place of contest; urban culture is born from interchange. Historically, walls enclosed the political city from "outsiders" and often created boundaries between different groups within. Cities were either formed through conflict, with public space shaped by civic consensus—the result of struggle between the shared vision of a limited group of like-minded individuals—or by the domination of a ruling king, emperor, religious authority, or national leader who imposed order on the space of the city. Unmarked by any single view, the contemporary city is stamped by the increased presence of overlapping territory and contested space, demanding fluid boundaries and flexible public spaces where differences can be exchanged.

R2 / R6 NY11 / NY4

Transparent Cities

If one sees two or more figures partly overlapping one another, and each of them claims for itself the common, overlapped part, then one is confronted with a contradiction of spatial dimensions. To resolve this contradiction, one must assume the presence of a new optical quality. The figures are endowed with transparency; that is, they are able to interpenetrate without an optical destruction of each other. Transparency, however, implies more than an optical characteristic; it implies a broader spatial order. Transparency means a simultaneous perception of different spatial locations. Space not only recedes but fluctuates in a

continuous activity. The position of the transparent figures has equivocal meaning as one sees each figure now as the closer, now as the further one.

Gregory Kepes[4]

The modern city may be formulated not only as impermanent and contested but perceived as transparent. For example, the twenty-four plates of this publication are literally transparent; however, they imply a phenomenon, a "broader spatial order" of "simultaneous perception" that can be experienced four-dimensionally in the city.

Impermanence and conflict shape the space of transparent cities. Fluctuations in political, economic, topographic, and social landscapes are transparent: they can be perceived spatially. Boundaries cross and overlap, public space is shaped by the struggle between individual and collective will. Persistence and discontinuity, past and present, are equally evident in the space of transparent cities experienced, not in a static and fixed state, but in the process of becoming. Thus, history is understood synchronically; alternative narratives and histories are framed in analogous cities. Singular authority is questioned by the simultaneous presence of "another story."

R4 /R5 NY5 / NY8

Rome and New York: Transparent Cities

Rome and New York are experienced as transparent cities: one continually confronts impermanence and heterogeneity in both places. Of course, Rome is the mythical Eternal City, but what is compelling is the fragmentary persistence of ancient monuments and the simultaneous presence of historical layers—all Rome's history present at once. New York, on the other hand, is a fluctuating urban landscape of constant demolition and construction with an opposing myth: New York is the essential Temporary City. Over decades, New Yorkers have constructed, abandoned, and replaced as many urban strata as have accumulated in Rome over centuries. In New York, one experiences the simultaneous demolition and reconstruction of whole cities several times in one's lifetime.

Examined together, the two cities reveal the paradox of modern city life: we demand change yet long for continuity; we favor diversity yet expect consensus. The two cities also challenge their respective myths: much of Rome's urban fabric has been temporary, with Christian Rome replacing the imperial city, which was in turn overwhelmed by the modern city; while Manhattan's grid persists in spite of constant change and modernization: the industry-based city replaced the colonial port city and in turn has been supplanted by the post-industrial city of information and financial services. Yet, within both Rome and New York, the conflict between change and permanence is unresolved. The urban landscape is divided between segregated historic preservation districts, legislated to remain unchanged, and unprotected areas of unregulated growth.

R3 / R6 / R12

NY3 / NY7 / NY11

Drawing Transparent Cities

One of the peculiar beauties of the twentieth-century context is that it is no longer the result of one or more architectural doctrines evolving almost imperceptibly, but which represent the simultaneous formation of distinct archaeological layers: they result from a perpetual pendulum movement where each architectural doctrine contradicts and undoes the essence of the previous one as surely as day follows night. The resulting landscape needs the combined interpretive ability of Champoleon, Schliemann, Darwin and Freud to disentangle it.

Rem Koolhaas[5]

Three important challenges in drawing the contemporary city must be faced: How to depict an urban landscape in flux rather than as a permanent artifact? How to represent contested public space, with its simultaneous uses and meanings? How to make a multidimensional map of the transparent space of the city? The way cities are being drawn and seen limits current urban understanding. Contemporary urban designers continue to envision the city as a permanent and uniform artifact—fixed in time, continuous and coherent in space. Instead, the city may be drawn as an organism, comprising parts to be examined through dissection, or as a constructed artifact that requires documents, "working drawings," that isolate the separately constructed parts of the city's infrastructure. Thus, both anatomical scans and layered construction documents are models for drawing the complex space of the transparent city, layering information in order to discover new meaning and resolve conflicts in time and in three-dimensional space.[6]

Figure/ground drawing is currently favored for depicting the city as seemingly unified by clearly defined monumental and ceremonial public spaces.[7] This graphic technique, borrowed from the 18th-century Roman cartographer Giovanni Battista Nolli, renders the enclosed, private fabric of the city black and the public, open space of the city white. Reducing the city to bipolar opposites and rendering the built fabric opaque suppresses the modern complexities of changing and overlapping space; it also ignores the three-dimensional space of the city. At the same time, looking at such a limited model of urban representations hinders our ability to examine critically the impermanent form of the city: it renders the city permanent rather than changing.

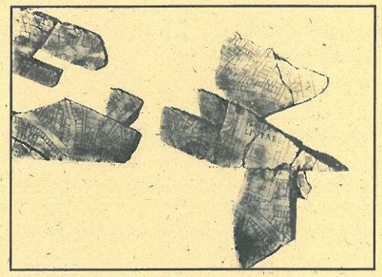
As a demonstration project, the enclosed twenty-four transparent plates record the fluctuations and changes in the spatial and political structure of two urban landscapes over time. Selected information from historical and contemporary maps of both Rome and New York has been redrawn at the same scale and reproduced on transparent plates, which can be examined individually or as overlays in any combination or sequence the viewer desires. The cities can be studied diachronically or synchronically, individually or analogously. By manipulating the plates in literally hundreds of possible combinations, the reader may recombine past and present, existing and demolished, seen and hidden. The overlays also show the city under and above ground, as well as at street level, exploring it in section and in three dimensions. Manipulating the plates introduces the fourth dimension of time.

R1 / NY12

Transparent Cities offers an alternative way of seeing and drawing the city, one that reflects rather than suppresses dynamic and heterogeneous space. The transparencies offer a way to examine a city without privileging one reading over another. By not preferring any historical moment or urban idea, the transparencies reveal the coexistence of a multiplicity of spatial ideas within each city. By depicting the city in the process of becoming, rather than in the stasis of a final or fixed idea of completion, new graphic tools can be acquired for understanding and designing the emerging city, tools that reflect the contemporary city's impermanence and diversity.

The Development of the Idea of the Transparent City

Cartographic evidence of Rome and New York ranges from marble fragments of the 2nd-century Severan Plan of Rome to the equally fragmentary abstractions of current zoning and real estate maps of midtown and downtown Manhattan. In the cartographic histories of both cities, one can examine the development and loss of the idea of urban transparency and various attempts at representing the space of an impermanent and heterogenous city. By studying and comparing the cartographic history of the two cities, we are presented with an alternative to that of written texts, one that can give additional understanding to historical processes. We cannot see through written language as we can through the transparency of the graphic; therefore, transparent maps let us critically re-examine "official" history.



3rd century Marble Plan of Rome

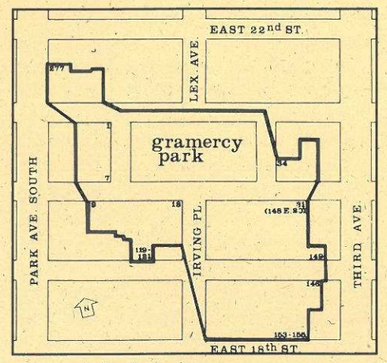
Two historical maps of Rome graphically interpret the discontinuity in the modernization of Rome by presenting the city as composed of different layers rather than as a continuous fabric. In Leonardo Bufalini's 1551 Plan of Rome, a city is seen shifting between medieval and Renaissance. In Rodolfo Lanciani's *Forma Urbis Romae* (1893-1901), the city appears between Christian and modern eras. In both, a new city is seen through the veil of the past at a pivotal moment in the city's history. Similarly, New York has often been mapped in the process of continuous change and modernization. The Commissioner's Plan published in 1811 projects a grid of new streets and avenues over the then-existing landscape of farms and villages, while later urban-renewal maps superimpose regional transportation systems, cutting through the grid. In New York each new replacement strategy for the future veils the city of the present. Imperial, Christian, and modern Rome; colonial, industrial and contemporary New York—all provisional and temporary, yet all persisting, simultaneously occupying the same territory in each city.

R6 / NY10

R1 / R3

NY3 / NY8

Now, when it is most critically needed, we have lost the ability to see and draw the city transparently. Urban change has continued to accelerate and civic discord has intensified within the contested space of the contemporary city. The current urban reconfiguration for our information age is changing cities as radically as the rise of industrialization and metropolitanism a century ago. Urban flux, and conflict, however, may be viewed not as merely modern phenomena but also as ongoing historical processes deeply rooted in Western urbanism. *Transparent Cities* is a critical examination of the spatial and political landscape of the historical and contemporary city, placing contemporary urban instability in a historical context. The enclosed plates expose that process of urban impermanence and contestation by recording transparency: different ideas of the city reoccurring and overlapping in space.



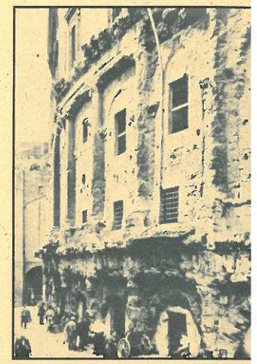
Gramercy Park Historic District

ROME EXPOSED

In other places one has to search for important points of interest; here they crowd in on one in profusion. Wherever you turn your eyes, every kind of vista, near and distant, confront you, palaces, ruins, gardens, wildernesses, small houses, stables, triumphal arches, columns—all of them so close together they could be sketched on a single sheet of paper.

Goethe[8]

Goethe's description captures Rome's essence. What makes the space of Rome transparent is the persistence of the physical evidence of its past and the simultaneity in which one experiences all the city's history. Rome is not clear, coherent, or unified. One still witnesses the monumental juxtaposed with the simple, triumphal with the ruinous, the urban that dissolves into nature. The many plans of Rome exhibit 1700 years of attempts to represent the city's spatial and temporal richness in a unified way, but few are able to capture its essence as an impermanent artifact and a landscape in flux.



Theater of Marcellus, 1880

Bufalini's Plan of Rome (1551): Between Medieval and Renaissance City

Leonardo Bufalini's mapping of 16th-century Rome is transparent: a single idea of the city does not obscure others. Past, present, and future plans are simultaneously depicted and graphically differentiated in Bufalini's representation, which discloses the city's history of triumph, decline, and rebirth as simultaneous in space rather than as sequential in time. The wood-cut plan gives graphic equivalence to four historical strata of Rome—the original topography, the imperial city, the medieval city, and the Renaissance city—emphasizing the underlying topography and ancient monuments while distinguishing the new Renaissance streets that emerge distinct from the medieval fabric. Commissioned by Pope Julius III, the map announces the new Renaissance Rome, at times fancifully, with topographical inaccuracies and graphic inconsistencies; yet this document offers a vivid picture of the spatial experience of 16th-century Rome, a city in the process of slow transformation.[9]

R1 / R5 / R6

Rome is situated on the flatland between the Ciminian and Alban volcanos, where it is cut by the Tiber River and its tributaries. The Pincian, Quirinal, Vimianal, Cespian, and Oppian Hills are promontories of the higher tableland on the east bank of the river, while the Capitaline, Palatine, Aventine, and Caelian are isolated hills within the city walls, and the Janiculum forms a regular promontory at the west bank of the river. These hills dominated 16th-century Rome much more than they do today's city, and Bufalini rendered their steep slopes with heavy cross-hatchings. Additionally, he mapped three masses near the river, hills that resulted from the accumulation of ancient ruins and rubble: Monte Citorio, Monte Giordano, and Monte Testaccio; the map shows a city returned to nature.

Like the hills, the ruins of the imperial monuments—a legacy of the empire that built for eternity—dominated Bufalini's city and shaped much of the later construction in it. Medieval buildings, for example, were frequently constructed atop or within the ancient monuments, which were impossible to demolish without great effort and expense. Bufalini drew fanciful, reconstructed plans of these immutable imperial buildings at an exaggerated scale, in some cases emphasizing the ancient monuments to the extent of obliterating buildings that existed in his own time. Obviously, these ancient structures loomed large in the imaginations of Bufalini and his contemporaries.

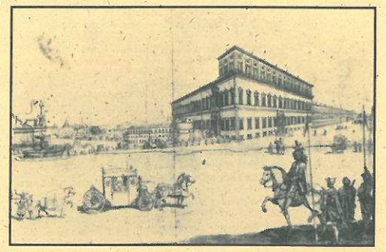
Detail, Bufalini's Plan of Rome, 1551

The Tiber River was the medieval city's lifeline. Following the destruction of the ancient aqueducts, the Campo Marzio, the flat, flood-prone area at the bend in the river, became the center of the shrunken medieval city, which now occupied only a small area within the Aurelian walls. Bufalini schematically drew important buildings, porticoes, and courtyards in this built-up portion, whose streets he depicted as a web, an organic maze with no apparent hierarchy. Bufalini's wood-carving tools lent a sensuousness to the wandering lines of these curving streets, which transparently veil the topography and ancient monuments as they also represent the fluid and continuous spatial experiences of walking through the medieval city.

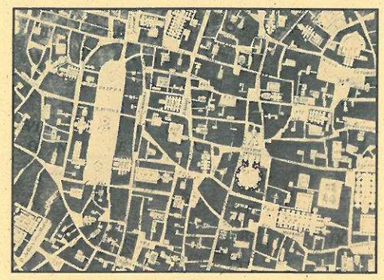
R1 / R8

In contrast to the fluidity of the medieval streets, the new Renaissance streets of Rome are straight lines, drawn by Bufalini in contrast to the older ones: the built-up blocks of the medieval city in thick, dashed lines, the undeveloped new blocks in open lines. The geometric precision of the Popolo Trident, Via Condotti, the trident across from Castle Sant Angelo, Via Coronari, Via Giulia, Via Lungara, and Via Lungaretta all emerge in contrast to the medieval fabric, redirecting the city toward the Vatican. Bufalini even depicted the new Basilica of Saint Peter's as incomplete, caught between the processes of demolition and construction. He captured the precise moment in time when the Renaissance emerged from the medieval, thus observing the start of the modern transformation of the city.

As a historical and political document, the Bufalini map offers a precedent for drawing a city in the process of change. His technique offers a way of representing the simultaneous richness of a city: medieval and modern, built and natural, monumental and ordinary. By not preferring one layer of the city to another, Bufalini conveys the simultaneous experience and spatial complexity of transparent cities.



Quirinal Palace



Nolli's *New Plan of Rome*, 1748

Nolli's Rome: The Hegemony of the Papal City

Two hundred years later, Giovanni Battista Nolli reprinted Bufalini's plan from a copper etching. The new papal city, begun in the Renaissance, had reached its fulfillment by the middle of the 18th century. Nolli marked the completion of the baroque city with a single graphic alteration to Bufalini's plan: he rendered the private portion of the city black, leaving the figural open spaces in the city white. Nolli redrew Bufalini's mapping of the historical process of continual transformation as a city of binary opposites: black and white, solid and void, built and unbuilt, public and private. Representing the baroque city's dominance over the topography, imperial monuments, and medieval fabric of Rome, Nolli rendered over Bufalini's transparent mapping and showed baroque Rome as ideal, complete, hegemonic.

R1 / R2 / R3 / R4

Nolli further developed his graphic technique in his major work, the *New Plan of Rome* (1748). He began the monumental survey for the plan in 1736 under Pope Clement XII, completed the original drawing in 1744, and dedicated the final, published print to Benedict XIV in 1748. The plan marks the beginning of the exact science of cartography in Rome: Nolli measured and drew the city as a concrete reality, not as a myth or utopia.[10] Nolli's *New Plan of Rome* is the authoritative plan of the baroque city, yet, with its papally commissioned viewpoint, it is the plan that most effectively suppresses Rome's spatial transparency. Nolli graphically rendered the private spaces of the city with cross-hatching, and therefore rendered them as a homogenous background for the monumental public spaces of the Church. The etching technique obscures the historical processes that actually shaped those spaces: the dynamic relationship between ancient, medieval, and baroque spaces.

Papal permission opened the whole city to Nolli, allowing him to enter and measure previously unknown areas. Even cloistered convents had to open their doors when Nolli and his assistants presented their letter of permission from the pope. Thus, the mystery of the medieval city was replaced by the papally sponsored commission's documentation, which was ultimately used for purposes of administration and supervision.

Although scientific in its exactitude of measure, Nolli's map is subjective in its graphics, which emphasize the spatial structure of the papal city, rendering it immediately recognizable by exaggerating the differences between private fabric and public space. The depiction of the city of historical layers, of a jarring juxtaposition of ancient with modern, is suppressed in favor of representing a homogenous city of the present. Nolli's graphic technique gives the reader a conditioned and guided view of the ceremonial spaces of the baroque city, highlighting its radiating streets that lead to grand squares at newly refurbished churches and palaces. Interiors of churches, cloisters, and porticoes are also left white, while private houses and workplaces, the diverse spaces of everyday life, are obscured, etched over with black cross-hatching.

Stables, Temple of Concord

Reading Nolli's map alongside Bufalini's, one can examine the transformation of Rome in the 200 years between the two plans and see the loss of the idea of the transparent city. Papal reconstruction had produced a capital city meant to rival ancient Rome. The topography of Bufalini's Rome had been greatly altered as well. The great baroque streets, interconnecting both churches and villas, were planned with indifference to the hills of the ancient city, and major streets were constructed across contours that required grading the steep promontories to accommodate the carriages preferred by noble families and the papal court. Spiritual ascendancy over the pagan imperial city was also asserted by the consecration of ancient monuments, such as the Pantheon and the Coliseum, drawn by Nolli as part of the spatial structure of the baroque city, not as comprising a coexistent, ancient, autonomous city. Whereas Bufalini had articulated the ancient monuments and topography separate from the fabric of the city, Nolli drew the monuments and the landscape as subtle intrusions, shaped and dominated by the order of the 18th-century city.

R3 / R4 / R5

Piranesi's Plan of Rome

The medieval fabric was also brought into the spatial structure of the baroque city and became background for the ceremonial public spaces of counter-Reformation Rome. The medieval street, shared by the entire populace of the city, was replaced by the street of pomp and ceremony, shaped for carriages and processions.[11] Papal decrees kept the still persistent medieval city at bay by prohibiting the building of market stalls and shelters that might disfigure the streets and squares of the new promenade.[12]

Nolli uncritically shows the papal city as a permanent artifact, unchanging and fixed in its baroque splendor and perfection. His contemporary, the visionary architect Giovanni Battista Piranesi, however, offers an alternative 18th-century map of Rome, and his entire work can be seen as a critique of the hegemony of the baroque city.[13] A topographical plan of Rome in the first plate of Piranesi's four-volume *Antichita Romane* shows the known ancient monuments that he was able to observe as well as the location of 300 other ancient buildings within the Aurelian walls. Imperial Rome was an immense puzzle for Piranesi, and he became fascinated with the fragments from the 2nd-century marble plan of Rome that were

unearthed at this time, as he evidenced by bordering his plan with their images. The map proper erases the modern city; like an x-ray, it strips away Christian Rome, laying bare the remnants of the imperial city and its underlying topography. Piranesi's views of Rome undermine the baroque popes' attempted homogeneity with depictions of the ghosts of the city's past: the markets and shanty constructions that continued to defy papal decrees. He displays the irrepressible spontaneity of the medieval city as well as the equally irrepressible desire to uncover the Rome of the caesars. Piranesi reveals what Nolli fails to show, the processes that shaped the spaces of Rome: the conflict between pagan past and Christian present as well as the anarchical spirit of Roman citizens in the face of authority.

R5 / R6 / R7 / R8

Lanciani's Rome: The Modern City of Archaeological Layers

From the fall of the empire to the Renaissance, the physical history of Rome was marked by an accumulation of rubble and continuous rebuilding over existing foundations. The baroque popes sought to spatially harmonize the city in conformity with the ideals of the age. In 1870, following the reunification of Italy, Rome was named the capital and consequently underwent a period of rapid expansion, both within and outside the ancient walls. Modern Rome is marked by the unearthing and exposure of the sedimentary layers of its history, owing to both archaeology and the massive construction enterprise in the capital at the end of the 19th century.

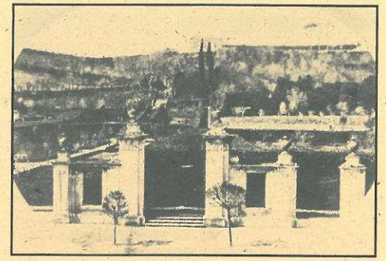
R9 / R10 / R11 / R12

Nolli's technique of mapping Rome as the background for ceremonial public space continued to be the preferred method of seeing and drawing the city; but, by depicting the city transparently, Rodolfo Lanciani's monumental atlas, *Forma Urbis Romae* (1893-1901) presented a challenge to Nolli's figure/ground technique. The culmination of Lanciani's activities as treasurer of Rome's archaeological heritage, the atlas mapped 4 million square meters of the ancient city previously unknown. No mere reminder of past glories, however, Lanciani's atlas was envisioned as a base for modern urbanization and a blueprint for new construction. Like a geological survey map, it tells where and where not to build, according to archaeological rather than geological strata.

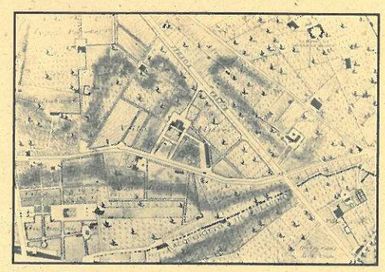
Lanciani's atlas offers a detailed city plan that compiled all known information of the physical layers of Rome. The atlas distinguishes by color four periods in the history of the city: the imperial, the medieval, the Renaissance and baroque, as well as the newly emerging modern capital; yet it presents these archaeological layers synchronically. The atlas thus documents a city during the process of modernization and shows modern urban change in the context of momentous changes in Rome's past. Like Bufalini's maps it transparently documents urban transformation and discontinuity simultaneously.

R1 / R6

The urban surgery necessary for the construction of this new capital city brought to light many missing pieces in the puzzle of Rome's past but also heightened the friction between urban change and continuity. For example, the flurry of modern construction exposed numerous antiquities, many of which were then preserved owing to Lanciani's efforts, but still more were unearthed than could ever have been saved or recorded. In Rome's first fifteen years as the capital of Italy, from 1870 to 1885, 81 million cubic meters of earth were excavated in developing new neighborhoods within the ancient walls, and much of that earth contained remains of the ancient city. As a result, physical evidence of the topography and fabric of corresponding areas in both the



Villa Corsini, Rome, 1860



Detail, Nolli's Plan

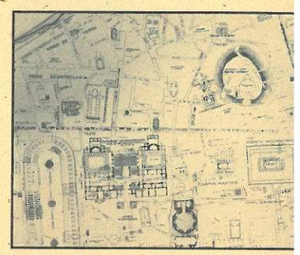
imperial and early Christian eras was uncovered, documented, and then reburied or destroyed, which means that the past was selectively reconstructed simultaneous to the building of the modern city. Lanciani's work provides the most important record of these discoveries as well as a vivid critique of the modern transformation of the city.[14]

Most poignant among Lanciani's writings, *The Destruction of Ancient Rome* compares the loss of Rome's 18th-century landscapes, owing to the modern expansion of the city, with the history of the city's ruin, not by natural disasters and wars but by the Romans themselves.[15] The destruction of Rome was not merely a modern phenomenon, however, since Lanciani's atlas records urban demolition in every epoch of the city's history. He found "the results of such civic ignorance . . . [in the] banal, disharmonious and insipid" quarters that replaced the villas within the walls, and he blamed the aristocracy for the loss of the city's patrimony. In a race to see who could destroy most quickly, nobles sold their lands and villas, making a little money from land their ancestors had built up and maintained for centuries. To the public's misfortune, only the villas Borghese, Ada, and Doria-Pamphili, all outside the walls, remain as public parks today.

R4 / R5 / R8

Rome, Archaeological excavation

In making way for the 19th-century expansion of the capital, Lanciani's contemporaries demolished most of the villas Nolli had depicted, thus destroying an essential part of the earlier mapmaker's Rome, which had balanced city and nature in a unity essential to Nolli and his 18th-century Rome. Nolli's map therefore testifies to a vanished landscape. Eighteenth-century Rome was immersed in nature—gardens, villas, vineyards, and orchards—all drawn by Nolli in great detail, in the manner of built land and as much a part of the city's fabric as any church or palace. They form a grey area, missing in contemporary figure/ground drawings, neither black nor white, public or private, built or open.

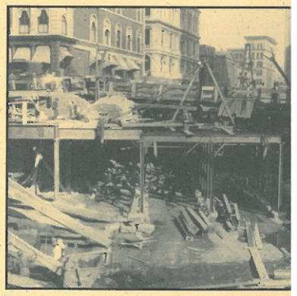


Lanciani's *Forma Urbis Romae*, 1893-1901

The 17th- and 18th-century creation of the baroque city was an especially destructive period for much early Christian art and architecture. In its effort to mask and modernize the medieval city, the counter-Reformation literally brought a new face to the Catholic church and, in Lanciani's eyes, needlessly reconstructed nearly every Christian basilica in Rome. In some cases, this process was later reversed. At Santa Maria in Cosmedine, for example, baroque facades were peeled away to reveal an early Christian basilica within an ancient portico.

R2 / R3

Systematic destruction of the ancient city had begun with the Renaissance, during which more of the ancient city was destroyed than during 1,000 years of barbarian invasions, floods, and earthquakes. Paradoxically, the culturally enlightened masters of Renaissance art took apart the classical monuments they so admired. As an example, Lanciani cites the Renaissance basilica of Saint Peter's, constructed completely from materials looted from pagan antiquity. Between 1540 to 1549 alone, the contractor for this basilica removed the following structures from the Forum: the Triumphal Arch of Fabil Massimo, the Triumphal Arch of Augustus, the Temple of Romulo, the Cloaca Massima, the Temple of Julius Caesar. The Coliseum was used as a marble quarry, from which 2,542 carts of travertine were hauled in one year, 1552.[16] The 16th-century Roman experienced Bufalini's city in the process of being dismembered and rebuilt, being taken apart and reconstructed stone by stone—a city shifting among the imperial, medieval, and Renaissance worlds.



New York's archeaology, subway excavation

In the long history of the dismantling of Rome, the medieval Romans were least destructive of their inheritance. Much of their construction reused older buildings, thereby preserving and reinterpreting the ancient fabric. The medieval city Bufalini depicts is transparent, built atop, yet not obscuring, the ruins and landscape of ancient Rome. Medieval

Rome had persisted even in the modern city, as evidenced in the rituals of the everyday life of the Romans themselves. In turn, Lanciani intended to revive the idea of urban transparency for the modern city, which could coexist with imperial and Christian Rome. Unfortunately, his atlas was suppressed. He had not viewed it as a specific master plan for the city; instead, he considered the atlas's information as an instrument of democracy that could be used to better inform the Romans about their patrimony. For him, ignorance was the great ally of controlling power, and knowledge of the ancient inheritance could shape the future through consensual agreement. In the haste to develop the city over the years, however, master plan after master plan ignored his work; and until the atlas finally was recognized in the 1960s, Lanciani's work remained a merely academic document. The plans in Lanciani's atlas, however, convey to us the simultaneity of turn-of-the-century Rome: concurrent with the unearthing of an ancient city, a modern city was under construction within the thriving fabric of an ancient one.

R2 / R6 / R9

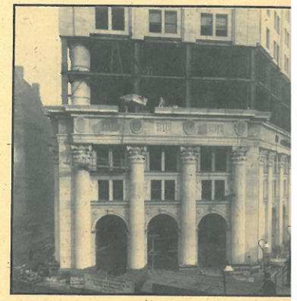
TEMPORARY NEW YORK

New York is a colonial city, a camping ground. All the hostility and the cruelty of Nature are present in this city, the most prodigious monument man has ever erected to himself. It is a light city; its apparent lack of weight surprises most Europeans. In this immense and malevolent space, in this rocky desert that will tolerate no vegetation of any kind, they have constructed millions of brick, wood, or reinforced concrete houses that all look as if they are about to fly away.

NY5 / NY8 / NY12

J. P. Sartre[17]

Sartre beheld the apparent solidity of New York and witnessed something more essential: it is the Temporary City. For Sartre, modern New York is impermanent: the contemporary city does not obscure the persistence of the colonial ethos. The city of the present is no more permanent than the cities of the past. The physical growth of Manhattan from colonial trading outpost to industrial center to global financial capital has paralleled the development of modernism from the 17th through the 20th centuries. Modernization has continuously produced new strategies for replacement and transformation of cities, and Manhattan has been a testing ground for these urban experiments. The paradox of the modern city, however, is that each successive city is itself temporary and provisional.[18] Every change in the economy and structure of New York has been preceded by purposeful decline and destruction. Dislocation and loss consistently accompany the dynamism of change and growth in the modern city; ruins from disinvestment abut over-built areas of hyperdevelopment.



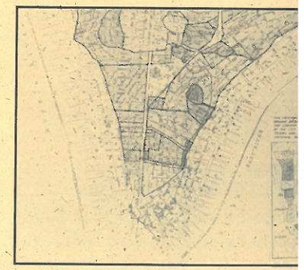
Construction, the Municipal Building

Phelps-Stokes's Landmark Map: The City of Cartographic Layers

What I could not guess was that this little low-studded rectangular New York, cursed with its universal chocolate-coloured coating of the most hideous stone ever quarried, this cramped horizontal gridiron of a town without towers, porticoes, fountains or perspectives, hide-bound in its deadly uniformity of mean ugliness, would fifty years later be as much a vanished city as Atlantis or the lowest layer of Schliemann's Troy.

NY3 / NY4

Edith Wharton[19]



Detail, I. N. Phelps-Stokes's Landmark Map

Wharton's archaeological metaphor conjures an image of New York as a mythical city, a city of lost layers in which centuries of urban change and destruction are collapsed into her lifetime. New York's Schliemann, digging for the lowest layer of this lost city, was Isaac Newton Phelps-Stokes, who searched for a vanished colonial city in old prints and maps at auctions and antiquarian shops. Phelps-Stokes's research culminated in his six-volume pictorial record of the development of New York, *The Iconography of Manhattan Island*, which was begun in 1909, six years after Lanciani published his atlas of Rome.

Wharton and Phelps-Stokes lived in a city that was a vast construction site. As in Rome, whole areas of the city were being excavated, not to uncover ancient monuments but to construct the infrastructure for "The Imperial City of the New World," as a contemporary map describes New York. This title blazons the concept of New York ascendent, as does the new spatial image for the city in which engineering feats of transportation and sanitary infrastructure are combined with architectural imagery from empires of the past. At the turn of the 20th century, at the same time that

NY4 / NY9

rcheological fragments of the ancient city were being un-
arthed in Rome, a fragmentary new imperial city was under
onstruction in New York.

NY1 / NY2 / NY3 / NY4

This imperial image of New York led to the desire for a City Beautiful on a
ietropolitan scale, and this new city began to emerge at the turn of the century with the
ibway system that unearthed vast sections of the urban area. Civic structures—
icluding the Public Library, the Municipal Building, and Columbia University—
ionumental portals—such as the East River bridges, Pennsylvania Station, and Grand
entral Terminal—and new parks and boulevards emerged like scattered fragments of
new Rome within the restrictions of the commercial grid and colonial streets of
lanhattan, the center of a vast metropolitan region known as Greater New York. These
ructures were interconnected with the rest of the city, the region, and the world by new
ansit: first, ferries and streetcars; later, elevated trains and
ibways; and, most recently, highways, airports, and fiber
otics. Nearly all ferries, streetcars, elevated trains, and piers had short lives, as the city
und new ways to move people, goods, and information.

NY2 / NY9

But, focusing on New York's colonial origins and frequenting auctions and
itiquarian shops, Phelps-Stokes came across few contemporary maps of the city
anging around him. Whereas Lanciani had intended the results of his study of Rome's
story as a blueprint for a future modern city, Phelps-Stokes primarily gazed nostalgi-
lly backward in time to the growth of the great city he memorialized. His New Imperial
ity ignored the city simultaneously emerging in the poorer quarters of New York: a new
nedieval" city populated by an immigrant invasion.

Phelps-Stokes split New York's cartographic history into two separate and
itonomous eras. "The *Iconography* divides itself, chronologically as well as topo-
aphically, into two main parts. The first begins with the second voyage of Vespucius,
1498, on which, probably for the first time, the precincts of Manhattan Island were
proached by Europeans, and ends with the report and plan of the Commission of 1807,
hich sounded the death-knell of the old city. The second begins with the development
the new city in accordance with the Commissioner's plan, and ends with the Hudson-
ilton Celebration of 1909."[20] Phelps-Stokes's original intention had been to produce
o maps as part of the *Iconography*, one "showing the growth of city from the earliest
nes to 1811 (Viele's map with Bridges's map superimposed), topography, important
uildings, with date of erection and demolition" and the second "showing growth of the
y from 1811 to the present time (Bridges's map with Manhattan superimposed, from
e St. Louis World's Fair Greater New York map), topography, etc., etc."[21] Two
ncepts emerge from Phelps-Stokes's intentions: the idea of overlaying cartographic
formation and the division of New York's history into physically distinct eras.

Phelps-Stokes final *Landmark Map* compiles all of New York's cartographic
story up to the beginning of the 20th century on one map, his intended chronological
paration disappearing in the simultaneous presentation. He did not distinguish the old
y from the new but, rather, melded them. Jennie and Clinton MacCarthy prepared the
ndmark Map using a transparent-overlay method resembling Lanciani's. The *Land-
rk Map* provides a guide for locating, "in relationship to the topography of the modern
y, the important sites, buildings, streets, etc., mentioned or illustrated in the *Iconog-
phy*."[22] In other words, all the city's landmarks, past and present, built and demolished,

are simultaneously present in Phelps-Stokes's map. In his attempt to grasp the rapidly changing urban landscape of the early 20th-century city in relationship to cities of the past, Phelps-Stokes sought a transparent reading of New York.

However, his search for the origins of the city uncovered and recorded the accumulation of urban layers through cartography, not archaeology. He drew cities of the past along with the present one, all based on maps, not physical information. In Rome, continuous rebuilding atop older foundations had preserved much of city's history in its actual construction up to the modern era. Thus Lanciani mapped the excavated city along with the construction of the modern city. In New York, where evidence of the past was available more on paper than in physical fact, Phelps-Stokes provided a simultaneous cartographic tracing of the development of Manhattan through recorded rather than physical information.

The Colonial City

In cartographically uncovering the colonial city, Phelps-Stokes had redrawn and overlayed at the same scale the Dutch City (from the Castello Plan of New Amsterdam as it appeared in 1660), the British City (from the Ratzer Map of 1776 and the British Army Headquarters Map of 1782), the original farm lines and land grants (from the Randel Map of 1819), and the original topography and water courses (from the Bradford Map of 1730, the Bridges Map of 1811, and the Department of Docks Map of 1873).

NY5 / NY6 / NY7 / NY8

The Castello Plan is a copy of an original drawing by Jacques Cortelton, who surveyed New Amsterdam from June to October in 1660 and produced a detailed, bird's-eye view of the town. The plan and its accompanying list of houses was an official report from the trading post to the directors of the Dutch West Indies Company in Amsterdam. After reviewing the map, the directors offered suggestions for cutting new streets and increasing the town's density. Although the Castello Plan gives a detailed description of the built settlement, it shows no topographical features; instead, it shows a landscape as flat as Holland's, complete with a canal, some 300 step-gabled houses, in addition to Fort Amsterdam at the island's tip, a wooden stockade, located along the present day Wall Street, and along the East River a few commercial buildings and wharfs now buried three blocks from the present shoreline.

The last colonial document of New York, *The British Army Headquarters Map of 1782,* was prepared to assist the British in their defense of New York. The plan is rich in the topographic detail important to 18th-century military strategists. Redoubt, barricades, and walls are shown, as well as a new stone battery constructed at the tip of the island. New blocks have been added to the north of the Dutch City as well as on landfill in the East River. In spite of the Georgian cityscape of bending streets terminated visually by churches and civic buildings, the map depicts a city under siege: at the time of the view, half the city had been burned to the ground.

The Commissioners' Plan: From Colonial to Industrial City

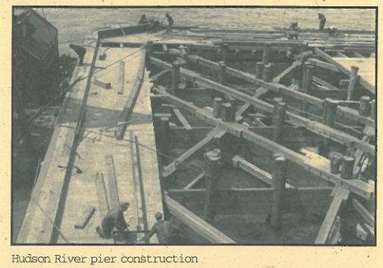
The first transparent plan of New York is the *Commissioners' Plan* (1811), which for Phelps-Stokes "sounded the death knell of the old city" upon the emergence of the modern city.[23] Extending northward up the new avenues, leveling hills, filling wetlands, erasing villages and farms, the city had a dual nature for most of the 19th century: a small, contained city at the island's tip being replaced by a new commercial metropolis of unbounded growth

uptown. The map depicts these two cities simultaneously: the city of the future consists of streets and avenues planned to cover Manhattan from 14th to 155th Streets with a grid of 2,028 blocks superimposed on the landscape of farms and villages stretching north.

The rapid actualization of the new plan quickly altered the topography as well as the settlement pattern of the island, erasing both villages and farms. The New York State Legislature approved John Randel, Jr.'s pen-and-ink *Map of the City of New York by the Commissioners Appointed by an Act of the Legislature Passed, April 3, 1807*. The commissioners, Gouvernor Morris, Simeon De Witt, and John Rutherford, were given exclusive power to "lay out streets, roads, and public squares . . . and to shut up . . . any streets that have been heretofore laid out" north of Houston Street.[24] Previous to the Commissioners' Plan, the city had grown piecemeal, in a patchwork of grids from its colonial core.

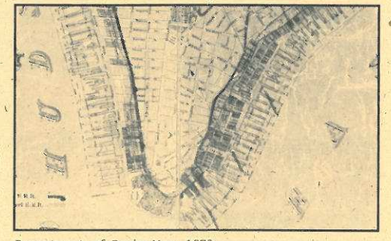
The commissioners' stated objective was to determine the shape of the future city based on the form and manner in which business should be conducted; but the shape and scale of the city block was set by the size of a typical row house: "A city is to be composed principally of the habitations of men and . . . straight sided and right angled houses are the most cheap to build and the most convenient to live in."[25] Not only the rectilinear geometry of the blocks, but also their dimensions grew out of the 20-foot-wide by 50-foot-deep row houses that, between Washington Square and Central Park, were to become the fabric of the monotonous, begridded city that Wharton bemoaned. The commissioners alluded to efforts to adopt the plan to existing settlement patterns and topography, but expediently abandoned these attempts.

John Randel, Jr.'s 1820 survey of the farms and settlements of Manhattan Island, a pen, ink, and water color *Map of Farms* comprising 92 sheets and measuring 0 by 11 feet in total, records pre-industrial New York, a city, like Nolli's Rome, of both built and natural landscape that no longer exists. This monumental survey was drawn for the Department of Public Works's Bureau of Topography and used to assist in the massive resettlement and regrading necessary to execute the Commissioners' Plan of 1811. Randel's work remains an important record of the early landscape and settlement of Manhattan Island and of a New York City that shared the island with the separate communities of Harlem, Manhattanville, Bloomingdale, Kips Bay, and Yorkville, all interspersed with natural buffers of farms and fields. The map records the period in New York's history when the city changed from a collection of farms and villages to a vast commercial metropolis.



Hudson River pier construction

NY3 / NY8



Department of Docks Map, 1873

The Altered Ecology of the Industrial Metropolis

One hundred years later, the detailed topographic depiction of Manhattan found in the British Army Headquarters Map reappears in maps just when the landscape and waterfront of the island had been transformed beyond recognition. Two late 19th-century maps use a graphic technique similar to Lanciani's to represent this transformation. One, the *Department of Docks Map*, relies on transparent overlays to record the successive landfill and pier construction as the port of New York grew into the world's busiest. Another, Viele's *Topographical Atlas of the City of New York* superimposes the new city over the natural topography and water courses to show the topographic changes required to build the street and sanitary infrastructure for the modern city; a grid of pipes replaced the streams and marshes. Together, the maps document dramatic changes in the

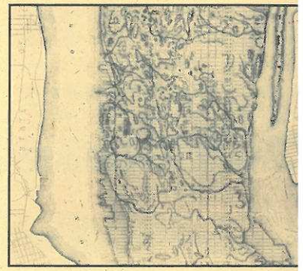
topography, shoreline, and ecology of Manhattan: the landscape of pre-industrial New York transformed from a small, contained city on a predominantly rural island to an industrial and commercial metropolis covering a vast region.

The Port of New York grew from a single wharf on the East River to miles of shoreline ringed with piers up to 1,000 feet long. The *Department of Docks Map* (1871) records that growth, superimposing all the previous shorelines and successive landfills along the island's perimeter. In the growth process, each generation of shipping infrastructure became outdated and was replaced as the port grew, handling most of the freight and passengers entering or leaving the United States and receiving a constant stream of immigrants and travelers. The once ecologically varied waterfront became a continuous wall of warehouses and piers.

The *Viele Sanitary and Topographic Map* (1864) documents the original water courses at the time when the street and sanitary infrastructure for the new city was being constructed. The colored lithograph shows an island of varied landscapes overlayed with the streets of the modern metropolis, for example: small hills and marshy floodplains at the island's tip; salt marsh areas in the valley at present-day Canal Street and much of the Lower East Side; wooded, rocky, and hilly terrain north of 14th Street. Broadway follows the watershed crest of a ridge emptying numerous streams into the East and Hudson rivers. The Viele map was produced concurrently with the planning of Central Park, the one major alteration to the Commissioners' Plan. The design of Central Park may be viewed as a scaled-down reproduction of Manhattan's virgin topography, preserving the memory of this preindustrial landscape. [26]

Second Avenue above 42nd Street, 1861

NY2 / NY5



Viele's *Topographical Atlas of the City of New*

Old Empires and the New Middle Ages: The Loss of the Idea of the Transparent City

In both Rome and New York, the 20th century began with maps that suggest the powerful spatial experience of transparent cities, of living in the overlapping and simultaneous worlds of past and present. However, Lanciani's and Phelps-Stokes's maps are regarded more as historical and academic documents than as planning tools. Master plans involving large-scale urban renewal and regional transportation systems reflect an ideology of rapid modernization, yet the designers of urban spaces continued to rely on traditional forms of representation of authority that ignore historical processes in shaping public space.

Many such maps document the intricate network of public and private transportation in and around New York City. After the stock market crash of 1929 and the ensuing depression, various urban renewal plans depict the old city as congested, and large areas were replaced by modern structures as a result of a consolidated government power and a reorganized construction industry, initially sponsored by the New Deal. Only four decades after construction of subways had begun, an even vaster regional highway system was envisioned by Robert Moses in a map entitled *Ring around New York*, which shows the five boroughs of New York City encircled and crossed by limited-access highways including the East River Drive, Harlem River Drive, and the elevated West Side Highway in Manhattan. The Holland, Lincoln, Midtown, and Brooklyn-Battery tunnels all disgorge cars and trucks into the heart of the congested island and interconnect the region and its three major airports. Manhattan's continuous shoreline of piers are abandoned, with trucks, planes, and the new container port located in New Jersey. According to Robert Caro, "Robert Moses shaped New York. Physically any map

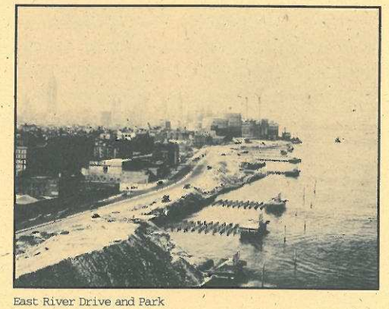
NY3 / NY11

of the city proves it. . . . Five immense dingy white expanses of travertine that are Lincoln Center, the world's most famous, costly and imposing cultural complex, . . . the New York Coliseum, the glowering exhibition tower whose name reveals Moses' preoccupation with achieving immortality like that conferred on the Caesars of Rome. . . . Once the sites contained other buildings: factories, stores, tenements that had stood for a century, sturdy, still serviceable apartment houses. Robert Moses decided that these buildings would be torn down. The eastern edge of Manhattan was completely altered between 1945 and 1958. Northward from the bulge of Corlear's Hook looms a long line of apartment houses . . . not block after block of them but mile after mile. And still further north along the East River stand the buildings of the United Nations headquarters. Moses cleared aside the obstacles to bring New York the closest thing to a world capital the planet possesses." [27] Caro doesn't recognize that Moses merely accelerated and consolidated what had been a continuous process in New York: constant urban renewal and replacement. Moses's methods were not dissimilar to those of his Roman contemporary, Mussolini.

Mussolini's 1931 plan for a new Rome relied on a selective view of history. He sought to align his fascist city of the new empire with that of the old empire and to inscribe this alliance in the space of the city, but the medieval fabric literally stood in the way of his vision. Consequently, Via del Impero, connecting Piazza Venezia to the Coliseum, had to be cut through the medieval fabric, itself constructed atop the remains of the imperial fora, ironically reburied under the monumental avenue. Another avenue, Via del Mare, was constructed to lead from Piazza Venezia, around the Capitaline Hill and to the Circus Maximus. Comparable to the baroque popes who brought the monuments of the ancient city into their urban spatial order, Mussolini connected Christian and imperial monuments to his new buildings: Via del Conciliazione opened Piazza San Pietro to the fascist city, Augustus's tomb was freed from its medieval additions and isolated within a new monumental setting. The new Corso Rinascimento parallels the Piazza Navonna, and plans were made to uncover the buried Teatro Pompeo as well. In addition, Mussolini's avenues connected to new monumental complexes located outside the walls of Rome: the new City University, the Foro Mussolini, and the Esposizione Universale di Roma.

Via del Mare, 1933

R6 / R12



East River Drive and Park

R1 / R8 / R12

The collapse of fascism ended Mussolini's shaping of a new city within and outside the old. As a consequence, contemporary Rome lies divided inside the historical center (crossed by two subway lines that intersect at the central train station) and outside its walls, an exploding metropolis (surrounded by the peripheral highway, the Grand Ricordo Anulare). New construction is rigorously limited within the walls and, under pthe severe pressures of expense and tourism, Rome's center is becoming depopulated. Most Romans now live in the periphery outside the walls, as the everyday, "living" medieval city is replaced by the restored, simulated one.

The fate of Lanciani's map reflects this division . One hundred years after his atlas, Lanciani's methods now figure in a thorough documentation of the historical center, the *Carta del Storia di Roma*, which systematically maps the city's architectural heritage; yet, contrary to Lanciani's vision, Rome's infatuation with its historical center results in the map's being used solely for purposes of preservation and tourism, not as a blueprint for new construction or the instrument of democracy.

Conclusion: Retrieving Transparent Cities

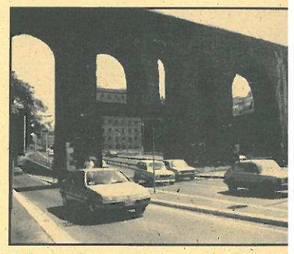
Our own Middle Ages, it has been said, will be an age of "permanent transition" for which new methods of adjustment will have to be employed. The problem will not so much be that of preserving the past scientifically as of developing hypotheses for the exploration of disorder, entering into the logic of conflictuality. There will be born—it is already coming into existence—a culture of constant readjustment, fed on utopia. . . . The Middle Ages preserved in its way the heritage of its past but not through hibernation, rather through a constant retranslation and reuse, it was an immense work of bricolage, balanced among nostalgia, hope, and despair.

Umberto Eco[28]

New York's present information and financial-service economy consists of "high-tech marvels that have been superimposed over a low-to-medium-tech infrastructure—essentially a layering of late 20th-century over the 19th-century city."[29] The information age has just begun to reshape this city, and this fragile new fiber-optic city has yet to be drawn, either in isolation or in relation to the mapped city it overlays. In this new information-processing city, the primary structure is the modern office building, and contemporary developers' maps are like war maps of territories conquered for office construction in midtown and downtown Manhattan.

These maps also explore the latest frontiers: landfill over defunct piers and the vertical open space of transferable "air-rights." The *Cushman Wakefield Development Map* (1990), for example, shows those office buildings of more than 200,000 square feet, the cut-off point between mid- and high-density construction and the point at which the technology of a high-rise building changes dramatically. The document not only maps the ground plane, but the three-dimensional space of the air-rights in the vertical city.

NY9 / NY10 / NY11 / NY12



Highway and Aqueduct intersect, modern Ro

Construction dates of Manhattan high-rises reveal the growth and decay of three distinct eras in the building of different skyscraper cities: the Singer Building (1908), the Woolworth Building (1913), the Metropolitan Life Tower (1909), and the Times Tower (1904) were all constructed between the turn of the century and World War I. Like obelisks in baroque Rome, they mark an extension of space in their march up Broadway. Modeled after gothic cathedrals or the Renaissance belltowers of Florence and Venice, New York's first office towers have looked back as well as forward.

After the brief period of 1917-1918, the golden age of the Manhattan skyscraper lasted from the end of World War 1 to the Great Depression. The Chrysler Building and numbers 1 and 40 Wall Street (1930), the Empire State Building (1931), and the Rockefeller Center (1939), remain the vertical landmarks of downtown and midtown Manhattan from this epoch. No large office building was built in New York City for the next twenty years. When Sartre visited in 1946, he saw the towers already as ruins.

NY8 / NY12

The postwar rise in corporate America, the era of "the man in the gray flannel suit," established Manhattan as its business and finance capital and Wall Street and Park Avenue as its Main Streets with Lever House (1952) and the Seagram Building (1958) as midtown's finest glass and steel monuments to the period. The demolition of the elevated trains along Third and Sixth avenues ushered in a new proliferation of office buildings. Earlier landmarks

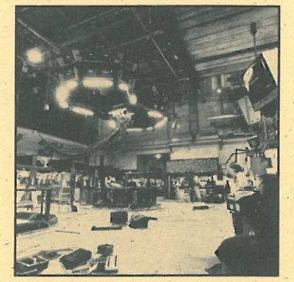
such as Grand Central Terminal and Carnegie Hall were threatened by the building fever, and Penn Station was demolished, a victim of its unused air-rights. Downtown, with the expansion of Wall Street, the low warehouses located atop the landfill along Pearl and Water streets were replaced, while the Chase Manhattan Bank Tower (1960) and the World Trade Center (1962-1977) came to dominate the older downtown skyscrapers. The twenty-year building boom came to a halt in the mid-'70s when corporate America began its exodus to the suburbs as New York City skirted bankruptcy.

NY2 / NY12

The short-lived financial-services expansion fed a building boom in the '80s, a period when government subsidies and tax deferrals aided construction of huge post-modern complexes. The World Financial Center and World Wide Plaza were built in time to benefit from the brief economic boom, but plans for huge developments at Columbus Circle, Times Square, and South Ferry stalled.

Contemporary urban design continues to rely on graphic representation modeled after Nolli; that is, representation of the city as singular and homogeneous rather than transparent. Modern interpretations of Nolli's plan led to the design of cities fixed in time and ideology, permanent artifacts spatially unified by monumental and ceremonial public space that often achieve a semblance of unity and consensus at odds with the complexity and heterogeneity of the contemporary city. For example, its designers declare the new development at Battery Park City an extension of Manhattan's fabric, and they use figure/ground drawings to prove their declaration; yet Battery Park City is experienced as an island in the Hudson. Despite its designers' attempts to join it to the city fabric, Battery Park City ignores its foundation on landfill and its replacement of piers. Battery Park City rejects the transparent city; it is singular, autonomous, and isolated. Hudson River Park is a flattened piece of Olmsted's rocky, Victorian landscape grafted from upper Manhattan to the river's estuary.

NY9 / NY12



New York Stock Exchange

The developer's city is doomed to obsolescence from the start. Office construction cannot keep pace with new computer, communication, and air-conditioning demands, and buildings just a few years old often need complete overhauling. The limited dimensions of the grid's single block can no longer accommodate the oversized floorplates required for a "state of the art" trading floor or back-office space. The battle lines between developers and preservationists, differing constituencies and city government, are drawn on contemporary zoning and land-use maps. The maps accompanying the New York City Zoning Resolution do not divide the city along topographic boundaries or street and building lines; rather, they dissect the city with nonphysical lines, with political boundaries: wards, precincts, and community board districts that result in a quilt of overlapping special interests, the emerging multicultural city. Such zoning and political maps cannot keep pace with the rapid economic and demographic changes in the contemporary city.

NY10 / NY12

In fact, Peter Drucker, describing future effects of new technologies on New York writes: "The city of tomorrow is far more likely to resemble the preindustrial city than the 19th-century city that still shapes today's New York".[30] His is not a nostalgia for the preindustrial city but a challenge to recognize the spatial implication of the city of the 21st century. Around the globe, peripheral centers have displaced the large industrial metropolis of the late 19th and early 20th century as the place where most people live and work. New forms of centralization accompany this new form of urban decentralization.[31] With more Europeans now living in such peripheral areas, for example, the center cities are left as administrative, museum, and tourist centers. Globally, such contemporary city centers are increasingly impermanent and contested: places where new immigrants, long-time inhabitants, and nonresidential commercial interests vie for the same territory. In New York City, thousands of manufacturing and office jobs abandoned the center, while the '80s saw new financial services and the international corporate sector expand in downtown and midtown Manhattan. Accompanied by informal economic activities fed by immigration from developing countries, this decade saw a substantial reconfiguring of both center and periphery.

R1 / R12

The centers of New York and modern Rome face new challenges in the next millennium. At this moment we need to reinvestigate a transparent vision of the cities. New York's "edge cities" and Rome's periphery are now where much business and commercial activity takes place, while downtown and midtown Manhattan, like the historical center of Rome, become increasingly more specialized. Industry has disappeared from Manhattan as quickly at the end of the 20th century as farming did in the middle of the 19th, while the residential exodus from the center of Rome parallels earlier population decreases. Can the future city sustain tourism, industry, farming, and finance? With the demise of the 19th-century city by the end of the 20th century, the Viele and Docks maps take on a new relevance for any attempt to recover the ecology of Manhattan Island or the entire metropolitan region. Similarly, the periphery of Rome should be mapped as carefully as the historical center. The relationship to the regional landscape, so important in the ancient city, should be maintained. As New York and other cities recover access to waterfronts, these maps offer possible programs and valuable natural information. The 20th century began with a realization of the transparent quality of the modern city, and the Lanciani and Phelps-Stokes maps attest to the spatial order inspired by the new city. The 21st century nears with the city caught in even greater conflicts of impermanence and contestation, and this emerging city, in what Umberto Eco calls "the new Middle Ages," needs to be drawn in relation to the cities of the past. Information and construction technologies are now equipped to accommodate, record, and access three-dimensional data in order to uncover, imagine, and construct the vivid spectacle of the impermanent, contested, and transparent cities, the space history and modernity.

R5 / R12

Notes

1. J. P. Sartre, "American Cities," *Literary and Philosophical Essays*, trans. Annette Michelson (New York: Collier, 1963) 115-116.
2. Marshall Berman, *All That Is Solid Melts into Air* (New York: Urzone, 1986) 13.
3. Paul Virilio, "The Overexposed City," *Zone* 1/2 (New York: Urzone, 1986).
4. Gregory Kepes, *Language of Vision* (Chicago: Theobald, 1944) 77.
5. Rem Koolhaas, "The Terrifying Beauty of the 20th Century" *OMA* (New York: Princeton Architectural P, 1991) 154.
6. In neuroscience "two maps are more than the sum of their parts: by superimposing a PET scan on top of a magnetic resonance image of his brain, neuroscientist John Ailman maps the location in his brain that is active during visual perception." Stephen H. Hall, *Mapping the Next Millennium* (New York: Random, 1992) 150.

In contemporary construction drawings for buildings, three-dimensional conflicts between different building systems are resolved by layering the drawings of various consultants. Structural, mechanical, electrical, and architectural information are drawn on separate sheets and then overlayed.

7. Figure/ground drawing is used to illustrate the critique of modern urban space introduced by Colin Rowe and Fred Koeter in *Collage City* (Cambridge, MA: MIT, 1978) 62: This might be best examined by once more directing attention to the typical format of the traditional city which, in every way, is so much the inverse of the city of modern architecture that the two of them together might sometimes almost present themselves as the alternative reading of some Gestalt diagram illustrating the fluctuations of the figure-ground phenomenon. Thus, the one is almost all white, the other almost all black; the one an accumulation of voids in largely unmanipulated void, the other an accumulation of voids in largely unmanipulated solid; and in both cases, the fundamental ground promotes an entirely different category of figure—in the one object, in the other space. Rowe and Koeter's reduction of the city to black and white, modern or traditional is antithetical to the ideas of spatial transparency on which the enclosed plates are based.
8. Johann Wolfgang von Goethe, *Italian Journey*, trans. W. H. Auden and Elizabeth Mayer (New York: Pantheon, 1962) 120.
9. Italo Insolera, *La Città nella Storia d'Italia: Roma*, (Rome: Laterza, 1980) 112-122.
10. Insolera, *La Città*, 303-318.
11. Lewis Mumford, *The City in History* (New York: Harcourt, 1961) 367-371.
12. Richard Krautheimer, *The Rome of Alexander VII: 1655-1667* (Princeton: Princeton UP, 1985) 106.
13. Marguerite Yourcenar, *The Dark Brain of Piranesi and Other Essays*, trans. Richard Howard (New York: Farrar, Straus, 1980) 103.
14. Isolera, *La Città*, 386-394.
15. Rodolfo Lanciani, *The Destruction of Ancient Rome* (New York: MacMillan, 1901).
16. Rudolfo Lanciani, *Destruction of Ancient Rome.*
17. J.P. Sartre, "New York, the Colonial City," *Essays*, 130.
18. Berman, *All That Is Solid*, 345.
19. Edith Wharton, *A Backward Glance* (New York: Scribners, 1933) 55.
20. Isaac Newton Phelps-Stokes, *The Iconography of Manhattan Island*, (New York: Dodd) I, 1915; II, 1916; III, 1918 (including the Landmark Map); IV, 1922; V, 1926; and VI, 1928.
21. Phelps-Stokes, Preface, *Iconography*, I, xv-xvi.
22. Phelps-Stokes, Description of Plates, *Iconography*, III, 174-180.
23. Phelps-Stokes, *Iconography*, I, xviii.
24. Phelps-Stokes, II, 471.
25. Phelps-Stokes, I, 472.

26. Lorna McNeur, "Central Park City," *Education of an Architect* (New York: Rizzoli, 1988) 181-183.
27. Robert Caro, *The Power Broker* (New York: Vintage, 1975) 5.
28. Umberto Eco, "Living in the New Middle Ages," *Travels in Hyperreality*, trans. William Weaver (New York: Harcourt Brace Jovanovich, 1986) 84.
29. James Baron, "Urban Places," *The New York Times* (19 October 1991): 27.
30. Peter F. Drucker, "Information and the Future of the City," *The Wall Street Journal* (4 April 1989): 27.
31. Saskia Sassen, "New Trends in Sociospatial Order of the New York City Economy," *Urban Affairs Annual Review*, vol. 34 (1989).