Rome in flight and Rome in freefall
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Dedicated to the memory of Rodolfo Lanciani
and to the young classical archaeologists of 2000

A.L.R. Ducros and G. Volpato used watercolors to depict women gathering herbs under a dome in the Baths of Caracalla as their men beat the ground with sticks (fig. 1). A serpent rises up before them; *laeta anguis in herba*. It is an appropriate image with which to begin. The ruins sit there, as natural as rocks, as day to day Roman life goes on. This is the absolute antithesis of archeology. The antique receives little attention. But the dead are lying below, and they are irritated by such distraction. They wreak their revenge by sending their concentrated vital energy, their *Genius*, in the embodied form of the upright reptile who challenges the gatherers. One can never completely escape the past. It rears up from a marble slab: perhaps as an inscription? *The Atlas of Ancient Rome*, here presented, is the flip side of this distant yet bewitching image.

The ruins endure, devoured by vegetation. Goats and human figures provide perspective: Ruins, vivisected by master builders with plans, sections, and letters for identifying the walls. Ruins, here spurned and there fitted into a teeming city, framed by small palaces, humble cottages, and shacks from various ages. Ruins, here dissected in detail—like three separate steps superimposed one on top of the other—and there unearthed from the depths—like the powerful underground substructures—but unearthed with precision. Ruins, populated by peasants and dumbfounded visitors exploring from carts or clambering up stairs.

At times, the rubble erupts from the ground; at others, it lies encased within it, reused for refuge or storage. Barrels poke out from columbaria, wine is stored among the ashes. At times, a grid, a brick, a piece of pavement, a hypocaust, and even detached objects such as amphoras, capitals, bas reliefs,
and inscriptions lie in the midst of the jumble. Sometimes it's all heaped into a heterogeneous pile, alive with the ancient world. At other times, the ruins are unified into complete but shattered panoramas. The ruins have been renovated, reinforced, and completed through reuse; they have been long invaded by tiny constructions, and now gigantic factories lie at their side, in wait for the time to devour. Exploration, discovery, yearning, and surprise, within visions never before seen. No hierarchy among objects and antiquities. Archeologists are still a long way off. This is the world of Piranesi (fig. 3). Ruins lie like sleeping beauty, in their natural state. Time has mixed the antique and the modern. Columns alternate with trees. A monument stands beside a hovel as the shepherds stand near the amateur historians. Even death is alive. The ruins are thriving with people and growing vegetation. There is neither separation nor specialization: there is only art that discovers—through detail and fantasy, through the engraver's skills for depiction with no regard for aesthetics—the crumbling remains that have not yet been abandoned.

If we compare these bulging biceps of antiquity, still clinging to the city as it moves, with what remains of the Roman ruins today, it is shameful. An apartment building and a Roman monument have become one in the case of Teatro di Marcello. And yet they remain separate, with the private residences resting atop the empty theater like some kind of incongruous hat. Glossy ancient monu-
mements are complete with iron bars that protect and separate them from life. They become corpses, exposed like mummies in a museum. What have we archeologists done? We have created holes in the city to uncover the trivialities of columns' feet, and in doing so we have broken the splendid, mixed continuity and intrinsic charm of an era. Yes, we still have the Teatro di Marcello as well as the nearby Porticus Octaviae—but their magic is lost.

Yet in the wondrous and wretched confusion of Piranesi's time, it was impossible to understand the Romans. Everything was misunderstood, mixed up with a fantasy that imbued it with misconceived meaning and a scientific appearance that hid ignorance, hence so many helter-skelter names. The ruins were alive. They had not yet become corpses. Still, they were little more than revived, yet unrecognized shadows. Everything had fused into the eternal present, but in reality, antiquity had already disappeared and had become the fragile and majestic stage of the popes' capital. The Rome of emperors, consuls, and kings remained in a kind of afterlife, but the Roman world did not live in a historical sense. It was merely a haphazard mix of places and centuries. The path of the generations was concealed.

Putting things into context, measuring, classifying by type, distinguishing by layer, and arranging the monuments into an ordered topography may have broken their visual magic, but this process began the historical reconstruction of ancient material that is archeology. After endless but productive digressions, meticulous steps were finally made toward seeking out and recomposing the antique, considered in and of itself, albeit with a modern mindset (fig. 2). The cityscapes of Piranesi, who died in 1778, have long since been lost, but we have regained, bit by bit, ancient Rome with its own spaces and times. The
antiquities of the antique dealers have vanished and given way to the excavations of the archaeologists.

However, the same tension still unites the eighteenth-century dealer and the contemporary archeologist (whose own origins are in the nineteenth century). It is that passion for the intense reality found more in the totality than in the individual elements, a system beyond precise formal value that distinguishes these scholarly figures from the art historian who exists only to point out the quality of shapes and explain the vectors they create.

The pile of ruins and their charming disorder is lost. We have ordered our monuments in space and time. Yet it is only through this "debunking anatomy" that we are able to translate monumental junk, permeated with humanity, into the moment-by-moment and place-by-place tale of how the city was transformed in its entirety. Typology, stratigraphy, topography, and iconography are the enemies of Corinthian friezes and young gentlemen in tricorn hats, but one cannot have access to the verisimilitude of the ancient without the analytical methods of excavation and scientific reconstruction. Piranesi engraved his awe before the magnificence of the ancient. It is up to us to cross the threshold of each period, disentangle the years, and look in the corners to rediscover the entire life of the ancients through study, procedure, technology, and our minds as inhabitants of postindustrial civilization. Yet our graphics—though far more convincing than many artistic renditions—appear poor when compared to the splendor of thousands of Piranesian prints. Our Colosseum looks out of place with the via Crucis stations removed. It is too clean—and crawling with tourists.

But it is now possible to write the biography of the ancient city, and even to sketch its portrait. The Rome of Piranesi represents the mind of the eighteenth century. On the other hand, our Rome is the heir of Freud's metaphor, describing the mind's awareness through the extraordinary structure of the city of kings, of consuls, of emperors, and of popes: "Now let us make the fantastic supposition that Rome were not a human dwelling-place, but a mental entity with just as long and varied a past history: that is, in which nothing once constructed had perished, and all the earlier stages of development had survived alongside the latest. This would mean that... where the Palazzo Caffarelli stands there would also be, without this being removed, the Temple of Jupiter Capitoline, not merely in its latest form... but also in its earliest shape, when it still wore an Etruscan design. ... And the observer would need merely to shift the focus of his eyes, perhaps, or change his position, in order to call up a view of either the one or the other." (Civilization and Its Discontents, p. 14).

Here, in just a few sentences, we have a vision of our task. If conservation has become the rule within the psyche, then it is there that we can find inspiration as we try to analyze and reconstruct the past of Rome, thereby satisfying mnemonic needs of the mind in the face of infinite destruction and reconstruction. Something of everything is preserved, and thanks to these clues (always there in the ground, collectable by the professional archeologist), we can find it all, by trying, erring, and improving. We can transform this city into a psyche that is aware of itself, even of its darkest or seemingly unimportant aspects:
a colossal memory of everything. Freud gave us this dream, and we can try to make it real, something that was impossible until the last decade or two. But instead of shifting the focus of the eye, or merely changing our position, we can now take advantage of computer technology, advanced cartography, and digital graphics, all of which are finally suited to the needs of archaeology.

The city appears to us as a giant of extraordinary longevity, like Freud's psyche that has lived for millennia. Why not write and illustrate the seemingly endless history lived here? The dream is to walk around ancient Rome, the way we can modern Rome, even if we can only do it through images.

1. The scope of the Atlas

Until now, we have not had a cognitive tool to apply to the entirety of ancient Rome that was worthy of the twenty-first century. What we have been missing is a scientific document filtered by philology, by criticism, and by historical and reconstructive intelligence, yet which is also satisfying to the eye and adequately precise in its data, while also capable of rendering serious and attractive vistas of the city. Of the extant resources, nearly all refuse to stoop below the erudite and are meant only for venerated colleagues; ours is meant for the world of scholars as well as the wider public. What we need is a concrete tool that can be handled like a book, but allows its substance to be augmented and perfected, realizing Borges's literary dream of studying China in 1:1 scale. To begin with, we have set out to fill this void—a void which has lasted for four generations—with a printed publication. The result is *The Atlas of Ancient Rome*, the first step toward the achievement of an ambitious goal.

We perceive this city as an endless entity with secret and jealously guarded possessions. We must take those possessions from the powerful guardians of knowledge and make them available to the public, that everything might finally belong to everyone. In this work, the ancient city is seen at a distance, such that it may be taken in at a glance, but also up close, where we can observe specific portions of its terrain, its periods, and its phases, all the way down to the scale of a single monument. Rome is a mass of materials and therefore a solid reality, but one that moves and flows with time like a river of stones.

2. The antecedent

First and foremost, it was necessary that we not be intimidated by the formidable precedent set by the *Forma Urbis Romae* by Rodolfo Lanciani, published between 1893 and 1901 in forty-six maps (1:1000 scale) that make up a total of 25 square meters (fig. 4). Lanciani started his *Forma* in 1867 and worked on it for twenty-five years, bringing together findings and documents produced and collected over almost a millennium, from the tenth to the nineteenth centuries.

If his antecedent work was Luigi Canina's *Gli edifici di Roma* (The Buildings of Ancient Rome) from 1848, the progress made by Lanciani's work is extraordinary. The *Forma* owes nothing to any ministry, university, or academy; it is the product of one person alone. Lanciani himself financed the work and paid the craftsmen—who were essential. It was a heroic, farseeing, and, above
all, unifying endeavor. Even today, its scientific and communicative power remains salient and serves as a precedent upon which any similar work is based.

Our vision of the ancient city is still mostly that of Lanciani. The *Forma* incorporates the best traditions of the positivistic studies of the eighteenth century, when all things historically relevant were still beloved, regardless of their aesthetic value. At that time, the reality of things was perceived and considered in its entirety and could finally be grasped, thanks to extraordinary archeological direction (at the same time, the first modern theatrical direction was being executed in theaters). Hence the attention to concrete details, rendered as much as possible just as they were, with a distaste for symbols, even if they were exact, comprehensible, and fascinating; and a practical sense (rare among Italians) that did not analyze objects more than was necessary—and never so much that the project would go bankrupt. Lanciani avoided the self-destructive tendencies of extreme analysts who jealously worship perfection with no regard for the limits of time, that is, those who never actually complete any worthwhile projects.

Lanciani’s *Forma* has a principally topographic character, but his aim was to go beyond topography. The *Forma* sought to reconstruct the extraordinarily vast, dispersed, and multiformatted documentation of the large and small, the beautiful and plain. It made a move toward the recomposition and reconstruction of architecture, against the cult of raw data and fragments considered per se, which had long subdued the passion of our field and left us lost among the trees, unable to see the forest.

The limit of Lanciani’s *Forma* was that its periodization was too wide, and the work was therefore unable to transmit the movement of time over the whole of the city’s history. It did not convey the reusage and transformation of things, which is the essence of every history. The work distinguished the Rome of the Republic in bistre, of the Empire in black, and of the contemporary cityscape in red and blue. Nevertheless, no city in the Roman world that continued to live through the successive ages had ever been provided with a cognitive tool of such quality, not even Athens (fig. 6).

Lanciani mainly addressed the world of scholars. His intention was to give the work an exact scientific character, a technical precision that dealt only with the facts, in accordance with the academic style of his era. However, Lanciani did not strictly follow those principles and often made attempts at reconstructions, while always distinguishing between the real and the hypothetical; see, for example, his *Horologium Augusti, Atria Ditis et Proserpinae, porticus Vipsania, Circus Flaminus*, Imperial Forums, Temple of Jupiter Optimus Maximus, Temple of Quirinus, *castra Praetoria, horrea Galbana*, and *porticus Aemilia*. On the other hand, is it even possible to reduce history to mere precision without interpretation? Is it not the mind that gives meaning to things? Even more extensive reconstructions were anticipated by the contemporary *Forma Urbis Romae* by Heinrich Kiepert and Christian Hülsen, published in Berlin in 1912 (fig. 5). Lanciani understood that if he did not concede to people’s interest, it would be impossible to provide a sense of context and cityscape through which the monuments might, where possible, be delimited and completed.
It is sad, though hardly surprising, that no Italian institution has been able to update Lanciani’s *Forma*, in particular the Lincean Academy, under whose auspices the Hoepli publishing house had published. As always, good intentions were not lacking, especially between the years 1912 and 1985, when topographers such as Hülsen, Ashby, Lugli, Collini, and Castagnoli sought to make their contributions. In those decades, classical archeologists had turned their thoughts elsewhere, to things that were more aesthetically important, namely things collected in museums.

The *Carta archeologica di Roma* (Archeological Map of Rome) dates to 1947 and contains nine tables (1:2500 scale). The *Carta* was an initiative by the Italian state that moved away from Lanciani’s *Forma* and focused on representing findings through the use of symbols. Tables 1–3 of that work, which was published between 1962 and 1977, are provided below.

The most recent attempt by F. Castagnoli has remained faithful to the realistic representation of findings desired by Lanciani, albeit with many technical improvements: cartographic precision and superior cadastral surveys based on a topographic grid, a greater number of elevations, color distinctions between more- and less-certain findings, reconstructions reduced to the essential, stricter critical control, and the recognition of new information. However, these improvements are accompanied by a move backward as well: the removal of every chronological distinction, including the division found in the *Forma* between the Republican and the Empire. This organizational structure was quickly abandoned. Then there was a great silence. Was the general topography of Rome dead?

Despite the various revised proposals and the myriad of scattered studies that have enhanced our knowledge of the ancient city—even if solely in disjointed details—we have behind us an age of decadence with regard to the consideration of Rome as a whole. It makes one yearn for the pomp of the nineteenth century. This decadence fell to ruins in the last generation. The *forma*, the map, the *imago*, the atlas of ancient Rome—if we choose to call it that—has never been a strategic career choice for scholars in our leading cultural institutions. Suitable human and financial resources have never been dedicated to it, and information has therefore continued to be lost in trivial tangents and quests into minutiae. The farsighted gaze of true heroes has been transformed into cowardly myopia.

Nevertheless, useful preparatory works on ancient Rome abound, though they were all invariably postponed or abandoned. There was *La storia degli scavi* (The History of the Excavations) by Lanciani, which the author worked on until 1878 and which was picked up by F. Coarelli until 1921. From 1930 to 1945 (and then again from 1973 to the present), the Soprintendenza Comunale prepared the *Notiziari delle scoperte e bibliografici* (Discoveries and Bibliographical News). There was also the *Carta archeologica di Roma* (Archeological Map of Rome) from the Soprintendenza archeologica, based on the efforts and promotion of C. Buzzetti and E. Gatti, which led to the republication of table 1 of the first supplement to the *Lexicon Topographicum Urbis Romae* (2005) by M. E. Bertoldi, L. Attilia, M. A. Tomi, and P. Liverani.
3. The postponed topography of Rome (first criticism)

Lanciani knew that any archeological map presupposes a different degree of analysis than that of an architectural study, be it of a monument or an excavation. He also knew that including all the relevant unpublished publications would have doomed the _Forma_ to incompletion. Castagnoli himself, who wielded a more accurate critical sieve, knew to temper the desire for perfection when updating Lanciani's work. Indeed, topography implies a concise analysis, reduced to a synthesis that provides the widest and most complete context possible. Abandoning a topography based on the specialized studies of single monuments, while practical and wise, has of late condemned us to reject any reconstruction of the wider urban landscape of ancient Rome. It is as if it were an impossible, completely senseless, and utopian mission, suited more to topographic “inventors”—a most malicious insinuation—than to true “scientists” of the ancient.

We, the last and only to attempt the task, are swarmed by bees buzzing a chorus of “You are inventors.” It is a slanderous, unverified accusation that debases our tremendous analytical effort to synthesize the whole. If only these bees were willing to light upon the pedals of this work, to communicate with us and come to our seminars, they could realize that we are clarifying and carrying out—as has never been done before—the proper degree of analysis, suited to the images of the ancient metropolis.

For those old and buried, or at least invisible excavations, there was no choice but to meticulously interpret data in both edited and unedited documents. Those ruins and excavations that could be surveyed demanded attentive observation, with their significant details noted and extant findings verified and perfected (see the following appendix, “Geomatic Methodologies for the Referencing of Archeological Information”). Finally, the collected data was reviewed in seminar discussions. These seminars rejected those essay drafts that fell short of the primary objective of the work: the representation of the monuments as an ensemble in order to make the landscapes of Rome live again.

The principal stratigraphic data were recovered by dividing the monuments into periods and phases. Reconstructions were proposed in which each type of evidence was defined, using different colors to distinguish the different types of archeological data from their interpretations. All the data were taken into consideration, including ancient iconography and plans. Hence, these representations are comprised of all the sources together (especially coins that depict the overall character of the buildings, such as the famous case of the grand atrium of the _domus Augustiana_, reconstructed for the first time in the great lines of Caioi Giuliani [see tables 82 and 83]).

The constructions are assembled solely from the essential results of the various philologies. Editions on single monuments were, are, and will be well received, but topography must be able to do without—otherwise, it is halted at each step: at each and every monument that has not been reviewed in a publication, or whose studies have been poorly executed. It goes without saying that any topographic endeavor, especially when the material to be recovered is
colossal, must be the result of a collective effort. It must also be carried out within a reasonable period of time: the unions between men are hardly eternal, and financial resources are even less enduring.

So we do not invent. We analyze topographic research in suitable measure, continuing the Italian topographical tradition and integrating it with other European traditions, perfecting them to a level never before achieved, yet which can always be improved upon. Our reconstructions are based on mountains of studies and reflections that are not explained in the texts beyond a light gloss, but which are revealed in full within the details of the graphics. The essence of the architectural and stratigraphic analysis of monuments must be contained in the topography, not snuffed out before it can cast light by a perfectionism that justifies the renunciation of “science.” In our mind, such a justification does not exist, and cannot exist in this era of grand technological innovation. In response to whether our Atlas be it in virtual or book form, is a popular or scientific work, we answer that that is a moot distinction. Is it permissible to spread rubbish and take advantage of the ignorance of others? Everyone has a right to be told things with the greatest possible precision and clarity. Considering that the research was carried out with public funds, it is a right that may be claimed by anyone. On the other hand, the completeness of the landscapes and architecture is not only a popular demand but a scientific necessity. Indeed, therein lies the moral imperative of archeology, which is so often betrayed by an exclusive cult of eclectic studies unwilling to provide summary analysis.

4. The deferred topography of Rome (second criticism)

Scholars of ancient Rome are especially concerned with the middle and late Republic and the Empire. They have rarely produced a reconstruction of the city over the long period beginning with the pre-urban through the proto-urban, and high-archaic urban settlements (eighth and ninth centuries BC). The idea that the city’s origins can only be left to speculation stems from a widespread, reassuring, and unjustifiably hypercritical attitude. The most that has been achieved are backward excursuses. In the Atlas, we have attempted to widen the chronological spectrum to the actual temporal breadth of the city. Recent scholarship has seen a multiplication of narrow attempts to fine-tune the historical-philological nuance that pays little attention to the general spatial layout of the city and even less to the importance of architectural and stratigraphic analysis of its monuments. We would be well served to return to the topography of the eighteenth century, when there was a balance between the love for and the study of texts and monuments. At that time, they both planned and carried out their studies in a holistic and interdisciplinary way.

In research, it is proper to draw distinctions between types of sources and to approach them with different methodologies. It would be a mistake to claim that ancient texts are equivalent to immediately measurable “data”; archeological contexts are debatable and therefore “interpretations.” All data, regardless of type, must be evaluated within specific criteria and interpreted in order to acquire significance. The pedestrian “common sense,” current nowadays, is to
be avoided. There are more oddities to an ancient city than we are able to comprehend. On the other hand, archeological documentation, which is always fragmented—as is everything that comes from the distant past—deserves consideration as much as surviving texts and inscriptions, riddled though they may be with missing words and letters.

Yet the study of monuments often stops where the work should actually begin. The old excavations were (generally) poorly implemented and poorly published. Therefore, the analytical-synthetic rigor required to judge and understand the documentation from these investigations must be sharp if we are to pull useful details from the whole and avoid the approximations that lead to arbitrary invention. Things speak, though differently than texts. They tell us what the texts do not reveal (such as spatial and figurative data), but they only communicate with us if we study them with perseverance and passion. They tell us things if we truly love them, if we use all our professional skill and intelligence and allow scholarly imagination to serve hard science.

So, though we must differentiate between types of sources and treat them appropriately, we must not keep them segregated. If we opt to interpret the literary sources to our own ends first—putting our hypotheses in the place of data—we typically turn our attention to the things themselves only as an afterthought, and with inadequate dedication, at that. We often reconstruct a spatial-temporal grid that follows the artifacts of our mind, but is not suited to the intensely architectural, stratigraphic, and topographic universe of the real material elements.

If we do not clumsily combine different types of evidence, then we are obliged to jump back and forth between them continually, in order to establish some relationship between the material objects and the texts. The reality of the ancient world was singular and not double, triple, or quadruple; a singular reality must appear in our scientific reconstructions. A temple cannot be in two different locations. We cannot simply equate the reality of the ancient world with the sum or mechanical comparison of various layouts—which, in the end, are merely the results of traditional antiquarianism and archeological philology. At times, philology and antiquarianism are indeed guiding elements in the interpretation of archeological data, but sometimes (far too infrequently) the opposite occurs, as with the recent identification of Hadrian's Athenaeum in Trajan's Forum. Whether the objects reveal a layout that agrees or disagrees with what described in the texts is a question of the utmost importance—a question to which we have a responsibility to do more than shrug.

Comparing evidence only after maintaining philological barriers and blinders is an ill-advised method for avoiding the worst of crimes: the integration of philology and archeology. Instead, we must continually distinguish among the variety of our evidence. We need to propose solutions that satisfy both fronts if the historical-archeological reconstruction is to have unity. However, today there remains a widespread taste for fragments, and so knowledge of Rome is presented in a way that is ever more fractured, scattered, discontinuous, and chaotic, not to mention immense, meritless, unpublished, and far too jealously
guarded. Four generations have passed, but we are still where we were in 1890, with Lanciani's precious and now outmoded and surpassable Forma. The lack of up-to-date and realistic archeological maps of Rome can be explained by the ups and downs of the Roman school of topography, but also by a cultural regression based on an unquestioned veneration of Italian scientific tradition (which has, in its essence, been abandoned) accompanied by a fear of innovation and new endeavors. Finally, we have returned to the monuments and architecture, not as single atoms, but as part of a general and systematic study, as is required for topography. Extreme and unilateral perfectionism—whether with regard to single monuments (see the first criticism) or with regard to philology and antiquarianism (see the second criticism)—is responsible for the annihilation of the comprehensive topography of Rome.

5. Beyond the antecedent
It makes little sense that we should still be required today to share and update Lanciani's Forma, given the historical, historical-architectural, antiquarian, topographic, stratigraphic, and typological maturity of the archeological and topographical studies carried out over the twentieth century, and given the technical possibilities provided by the territorial information systems now applied to archeology. In these systems, "the true novelty lies in the attempt to put diverse cognitive realities into a positive relationship with the problem of heterogeneous data from original sources into a positive." *

We need to push for more. We need a greater volume and variety of documentation to be considered in order to reconstruct contexts defined within time. We need architectural analyses of single monuments, with their decomposition and reconstruction by periods and phases within a sufficiently tight chronological net, to restore a sense of the uninterrupted flow of human activity. We also need to go further in methodological organization. The topographical view, which is less complete than the monographic studies or excavation publications, must be declined in favor of the principles of stratigraphy, architectural typology, and chronology. Using the most advanced procedures developed in the second half of the last century for archeological excavations, these principles can be extended, in part, to topography. Basically, it requires rethinking the fundamental image of the ancient city while simultaneously avoiding the overwhelming temptation of unavailing perfectionism that so often derails large projects.

Today, at the turn of the century, the overall consideration of Rome is defined by extremism in the love of precision and detail, present in both analysis and the surveying of ancient monuments, as well as archeological excavation. This mindset dooms any topographical work to failure. Only God is capable of perfection; men should put such aims to rest. With this in mind, we have striven for the best results that could be achieved within a reasonable amount of time in order to bring about our first work, the Atlas, which we hope will be followed by others. We have armed ourselves with awareness and methods acquired and elaborated over a lifetime of scholarly study and writing, in order
to develop a detailed and rich informative system. For this work I owe a debt
to Paolo Carafa, who helped curate it, as well as to the young members of our
team, who have both my admiration and my gratitude.

The precision of surveys is fundamental to achieving the congruity of spa-
tial reconstruction. The monuments must be georeferenced, but it is inap-
propriate to spend exorbitant sums on stunning surveys if the monuments are then
lost in inaccessible archives. Instead, it is essential to adopt a methodology of
use and confirm those plans that have already been completed (see the follow-
ing appendix, “Geomantic Methodologies for the Referencing of Archeological
Information”). It is also important to invest in the comprehension of the mon-
uments in their course through time. Things, both constructions and land-
scapes, must be brought back to their original historical moment through the
differential, vectorial acquisition of information. Generally, this information is
cumulative in nature and, as such, indifferent to time. Therein lies one of the
principal aims of archeological research. Indeed, if archeologists are unable to
translate their stories into images, their research serves no purpose. We must
not be the miser who accumulates treasures without celebrating their value.

If the archeological artificial brain we have developed has worked for all of
ancient Rome, including all fourteen Augustan regions, it means that it will
work for almost any city in the world. It is our hope that every urban center,
starting with those with a classical past, will have similar sophisticated tools
made available to them. We would hope to start with Athens, Istanbul, Alex-
andria, and Carthage,10 not to mention the cities below Vesuvius, Hadrian’s villa,
and Ostia. An open society must have open culture that is freely available to
everyone. We cannot work primarily for ourselves in so many tiny fiefdoms,
but instead must dedicate our efforts to the interests of culture in general, which
interests in this particular case coincide with informative archeological systems.
Computerized guides, which are still lacking because we have remained attached
to Baedeker’s (invented in the mid-nineteenth century), should also be de-
veloped based on the above-stated systems.

We look up to the work of Lanciani, but we are convinced that our scien-
tific forefathers must be more than merely celebrated. Their spirit must be re-
suscitated and put to work in us for the unique context in which we now live.
It is our duty to operate at the level demanded by our own time. We must not
be intimidated by our forefathers, however great they might have been. Instead
we should be inspired to surpass them.

Yet the key to surpassing their work lies in a simple but nearly unachiev-
able strategy. First of all, the monuments must be inserted into periods and
contexts that are contextually and visually appropriate. Then, the architecture
that has survived and the architecture that has not survived—including that
within the stratigraphic layers that have been excavated, all of which is funda-
mental to dating—must not be split up. Instead, it must all be reconstructed
using clues and comparisons. Publications regarding single monuments are
usually understood as two-dimensional planimetries, which lack an overall
stratigraphic and constructive reconstruction of the third dimension. All too
frequently, such work exists, but fails to meet the needs of an all-encompassing awareness of the constructions, decorations, and landscapes that existed around their subject objects.

6. From single scholars to a system of awareness

The study of ancient Rome represents the ideal school for classical-archeological studies, with links among many different types of knowledge, objects, sources, and times, including those most removed from us. Studying Rome is to an antiquarian what playing a pipe organ or directing an orchestra is to a musician: a simultaneously individual and collective means of expressing the utmost in polyphonic and symphonic sound. Up until now, this plenum of sources and reconstructions could be navigated only by rare and exceptionally erudite scholars. Knowledge was only available through formidable personal effort, bordering on harsh asceticism. Nowadays, such scholarship is difficult to reproduce, especially in a hedonistic society like our own, where distraction prevails over attention and entertainment over culture. Today's scholars believe a fulfilling life can be found by ignoring the texts and works of the past, thereby securing themselves a sad, dark future. On the other hand, the erudition of past masters could never be complete and methodically exemplary on account of the limits of each individual, their inclinations and individual idiosyncrasies, and the brevity of human lives—let alone the fact that the foundational work is predominantly humanistic and literary, and often distant from the more archeological, scientific, and experimental qualities that characterize the discipline of archeology today. Furthermore, the erudition of those masters was never easily reproduced, not even by the best students. But an informative archeological system makes the immense erudition of generations of scholars immediately available and subject to query. We can work infinitely toward perfecting it and, furthermore, make it universally accessible on the Internet. In this way it is possible to prepare studies on Rome and visit the ancient city while in Heidelberg, Germany, or Tucson, Arizona.

The Atlas of Ancient Rome is the result of the labor of a group of young university researchers. These researchers required a director, someone to orchestrate them, and this curator needed the support of an assistant, Paolo Carafa, if he was to cultivate a unifying concept. The unifying concept was the greatest merit of the Forma by Lanciani, who (contrarily) was that work's sole author. Only composite works, such as dictionaries or catalogues, retain the possibility of internal contradictions, as individual authors are each responsible for their own sections. Corpora and summae are merely tools to work with, not organisms of consciousness like historiographical syntheses and studies of landscapes. Some scholars prefer to publish analytical articles rather than concise monographs because sparse contributions do not require a long-term and logically structured historical interpretation.

Beyond this special consideration, we needed a group specialized not only in archeology but also in computer-aided design (CAD), the graphic alphabet of territorial information systems, and this group of young people have become
true masters of the tool. There was also a need for a design and color style, plus other strict criteria that could only be provided by an expert architect such as Andrea Mantegna. The group works as independent artisans; the originality consists in tiny conquests within their personal research and seminar work. That work adds to and merges with the greater work, with the merit falling simultaneously on the individual and the group. The goal is to create a new school based on the old school: a collaborative workshop of classical archeology.

For some, the term school has a negative connotation. To such critics, a school indicates individuals subjected to their teachers/masters as to ape them mindlessly. However, no shrewdness among primates has ever succeeded in producing a cultural accomplishment such as the Atlas, and especially not within a reasonable period of time. Many quantitatively relevant and qualitatively organic works of intelligence are the fruit of both the head of a school and the school itself. Works such as these, created within the system, may frighten or be misunderstood by those who are used to working on research by themselves. While exclusively personal work is still possible today in the history of art, it is ever more inadequate for archeological pursuits. For this reason, it is exceedingly difficult to get ahold of publications on large excavations or large topographic works. We often seek useful archeological news flashes—and less often outstanding evaluations—but rarely do we find satisfying publications of great scientific endeavors. The seminars and Skype chats at the core of this Atlas were long and tiring. Sometimes the discussions between the more expert scholars and the younger ones lasted entire days, with frequent changes in tack to attempt to better solve a problem.

7. An archeological information system

An archeological information system like that in our Atlas presupposes a capacity to analyze, list, and combine a gigantic heap of varied and unconnected evidence in a typologically and contextually significant manner. It requires masses of information to be reduced into a topographic unit. Data of diverse character are thereby provided with a representation based on uniform principles guaranteeing the integration of time and space. One need only consider the variation among the data from the current planimetry known as Cartesia, that of G. B. Nolli from the 1700s (fig. 7), that of the Gregorian Urban Cadastre (contracted in 1811 and completed in 1824; fig. 8), that of Lanciani’s Forma, that from the published and archival data, the clues taken from nondestructive surveys, and analyses of findings and excavations to understand the level of complication. Indeed, it is a cartographic database whose principle lies in the fact that each piece of information must be critically weighed, not just technically but also historically, in order to be translated into a georeferenced and defined geometric form. In that way, the archeological datum becomes a means by which to share all other immobile, mobile, figurative, epigraphic, and literary evidence. Only in those cases in which georeferencing is impossible are symbols resorted to so that no useful information is lost. The data in Lanciani’s Forma has been double-checked against the original documentation or, where
possible, against the monuments themselves. We have also vastly increased the range of published and unpublished information. The realistic representation of structures has rendered symbology obsolete. Likewise, the articulation of the findings of different periods has rendered useless the graphic conventions of superimposing structures of different periods.

Our information system was derived from a job commissioned by the Sapienza University of Rome and funded by the Sovrintendenza Comunale. In 1995, in accordance with the wishes of Superintendent Eugenio La Rocca, a commission was established to renew the Forma Urbis. What a wonderful idea it was! The work was entrusted to a historical topographer, Paolo Sommella, and to a classical archaeologist for the writing. Both taught at the Sapienza University of Rome. The former was assisted first by Giovanni Azzena and the latter by Paolo Carafa.

Highly diverse scholarly traditions were brought together by this commission. For the first time there was a convergence of methods that permitted the fulfillment of a unifying proposal, which was recorded in a massive, unpublished study. In this study, an operating procedure and its attendant technological requirements were proposed for the creation of an information system capable of studying and reconstructing any place or monument from ancient Rome. The idea was to project the immobile and mobile archeological remains onto the map along with other data of topographic importance: from literary sources to the marble fragments of the Severan-era Forma Urbis to the historical maps of the city starting with Nolli’s planimetry. After analyzing the document, the Sovrintendenza Comunale rejected the proposal without explanation. To us, their choice appeared incomprehensible, especially considering the money already provided to the commission, which was thereby effectively wasted. We had hoped that the initiative could be carried on within the institution in some other way, but unfortunately the new Lanciani would not be reconsidered, not even using another method. An instrument aimed at the specific activities of the office was considered. However, only high-level bureaucratic connections could ensure that attention, evaluation, and efficient communication be guaranteed. Thus failed the last attempt to renew Lanciani’s Forma, the first to be imagined as an information system.

The study we had developed ended up in the bureau drawer and remained there for a number of years. It was only in 2002, when we were able to obtain some modest university funding, that yours truly and Paolo Carafa returned to that document with the intention of updating Lanciani’s Forma for publication by articulating the buildings within periods and phases. This work was carried out between 2002 and 2004. In 2005, we were able to unveil the complete information system, thanks to financing from Arcus. Thus, we were able to develop an information system called the Sistema Informativo Archeologico di Roma Antica (Archeological Information System of Ancient Rome), which brought together data old and new, published and unpublished. It should be recalled that this was inspired by that unpublished document, whose importance will be apparent henceforth.
There were two currents flowing concurrently in that study: that of our “English” archeology and that rooted in the “Italian” topographical tradition of Ferdinando Castagnoli, subsequently perfected by Paolo Sommella, whose school was able to thrive while maintaining its loyalties. That document presupposed the Archeological Information System of Ancient Rome. In turn, the latter presupposed The Virtual Atlas of Ancient Rome, a different information system, in which the data and interpretations were interconnected to reconstruct urban landscapes, ordinary constructions, great architecture, and the most relevant findings.

The Atlas of Ancient Rome in book form is the first product released from the Virtual Atlas. It is the result of collaboration between the chair of the Sapienza University of Rome’s Greek and Roman Archeology and Art History department (now the Department of Antiquity), including those enrolled through the 2010 academic year—and Paolo Carafa, plus the State Oversight and City Oversight Commissions. It began with the Archeological Information System of Ancient Rome and was then continued under a more definitive and formal integration with the State Oversight Commission. Since 2009, our information system has been in communication with the Sistema Informativo Territoriale della Soprintendenza Archeologica di Roma (SITAR; Archeological Oversight Commission’s Territorial Information System of Rome). This allows for the viewing of archives and maps with reference to absolute coordinates in various information systems.

Thanks to the encouragement provided by Roberto Cecchi, the commissioner assigned to urgent interventions in the archeological areas of Rome and Ostia, an agreement was signed by the Sapienza University of Rome and the State Oversight Commission to exchange information regarding findings made up to the year 2001. On the other hand, the publication of the Atlas itself in book form is due to the collaboration between the Sapienza University of Rome and the Ministry of Cultural Goods and Activities, represented by the Special Oversight Commission for Roman Archeological Goods and the assigned commissioner, to whom credit is due for having made the integration of the data and the publication possible. We owe a debt of gratitude to the Electa Publishing House for taking on the work and reaching an agreement with the Special Oversight Commission for Roman Archeological Goods to include it in their publishing project for the appreciation of the city’s archeological patrimony.

8. From topography to archeology
If it is the entirety of archeological Rome that interests us, with its vast range of historical contexts and periods, then our work must be (in addition to topographical) archeological in the widest sense of the term. It must not be limited to art history, but must be a classical archeology with its own epistemology—an archeology that is able to take in reality as a whole.

If we take the two abovementioned archeological information systems, the Archeological Information System of Ancient Rome is an analytical system aimed at technicians and specialists, whereas The Virtual Atlas of Ancient Rome...
is a system in which the archeological data (which can always be made more complete and exact) are simultaneously distinct and combined into integrations, interpretations, recompositions, and reconstructions. This Virtual Atlas is ultimately bound for the Internet, but as of now is included in the physical book. It includes different types of data and sources, which are denoted by different colors, while the hypothesized elements appear in black and white. Scientific authorities who have had enough time to guarantee “definitive” reconstructions simply do not exist. Indeed, these reconstructions remain provisional and shall only last until improved upon. Based on new evidence, more appropriate comparisons, and further reflection by ourselves and others, we are and will always be willing to perfect these reconstructions. However, these improvements can only be obtained through precise (even if provisional) proposals arising from discussion. The goal is to act, rather than to remain inert for fear of making a mistake.

Archeology exists in the space that lies between mere data and Piranesian fantasies. It was our aim to delve into the former and avoid the latter. Only those things that could neither be localized nor dated were excluded from the information system. However, some plans and images of ancient monuments that cannot be physically placed were taken into consideration due to the architectural interest they evoke, regardless of location (see tables 259–68).

Just identifying a monument in terms of dimensions, shape, function, chronology, and architectural type presupposes interpreted data. On the other hand, narration cannot be provided without advancing a hypothesis based on evidence, which is the principal ahistorical purpose of archeological research. Otherwise one provides only diachronically planimetric maps, which are patrimonial accounting lacking in any cultural interest.

Archeological cartography, of the digital variety in particular, is no longer seen as an appendix to the topographical index, used merely as a link between the philological-archaeological data and the territory (data that would have their own life even if abstracted from any context). On the contrary, The Atlas of Ancient Rome takes advantage of the lexicons, putting them at the forefront of a discussion that is finally not only technical and partial but altogether historical. That is to say, the discussion begins with the atoms that make up the entire recomposition and reconstruction process: the topographic units, be they known or unknown to literary sources.

These atoms are more than little squares of space (such as the 5- x 5-meter square that was G. Ioppolo's topographic unit) or single, distinctly numbered findings. On the contrary, they are the minimal significant elements that make up an urban landscape. We call this new variety of atoms topographic units to distinguish them from stratigraphic units. The topographic unit already has the dignity of a monument, because it has a formal, functional, typological, and chronological identity. It therefore has a historical-cultural significance regardless of its dimensions or artistic merits. It could be a tiny altar or the huge Baths of Caracalla. So the city is to be seen as a series of Chinese boxes moving from single objects and layers (the findings) to the monument, the monumental
complex, the block, the area, the Augustan region, the urban infrastructure, and finally the city as a whole. Each of these Chinese boxes is considered unto itself, while at the same time they form a unified system in which the parts include one another. The simple sum of a lexicon and an archeological map does not meet our expectations; a global and organic instrument is required.

9. Reconstruct the monuments, but how?
To integrate the missing parts back into the buildings, we acted in the following manner: If an architectural element is preserved or in any way documented, such as an antefix, a fragment of a frieze, or a capital, we replicated as much as was needed to complete the original piece. For those architectural elements that have not been preserved, the reconstruction was completed by using comparisons with decorative elements of analogous origin and chronology. As in all visual arts, a style can be detected in architecture. It is the formal character present in the building as a whole, as well as in each of its ornaments and fixtures. In a similar sense, there is an iconography to the typological image of the completed building that is abstracted from its style. This means that our reconstructions often principally illustrate the iconography of ancient Rome's architecture, while it is only in a few cases that it was also possible to reconstruct the style. Is that really so little?

The most pleasant and seductive reconstructions are those executed by professional illustrators, such as the excellent ones done by InkLink, of which we have made frequent use (I have fond memories of Paolo Donati, founder of that studio, whom I met as a young man in Algeria and who passed away far too early), or those published by G. Capasso in Journey to Pompeii. However, these do have one defect. Taken by themselves, they do not allow us to understand what really exists, how much has been taken from literary texts and ancient and modern iconographic sources, or how much has been reconstructed through comparisons. This makes the result as efficient as it is apodictic, but without any philological base. This kind of illustration should always be accompanied by plans or sections made by expert archaeologists using CAD. It should be possible to distinguish the evidence within the illustrations (through the use of colors), divided by source type according to graphic philology—as has been executed for the first time in this Atlas. This is the only way to place the members of the scientific community on equal footing, since fatally dogmatic, nonphilological reconstructions based on unpublished excavations and their unstated claims (or which are described in words alone) cannot be discussed by those that are unable to access the structures, findings, and documentation of the excavations in question. In such inferior conditions, it is impossible to propose corrections and improvements, especially for younger scholars who have every right to place new demands upon them.

Publications regarding excavations and materials often require a large amount of time, yet frequently never reach the press. Nevertheless, the known walls, architectural decorations, and fixtures that are detailed in graphic reconstructions can suffice, at least preliminarily. Hidden monuments, secret
excavations, news given in approximate terms or with unjustified delays, and offerings lacking in the most elementary philology all lead to an archeological monopoly that impedes scientific competition and does enormous harm to the study of history. Let us do away with the archeology of the few and privileged, and let us make space for open and democratic archeology, in which the only admissible privilege is a scientific ownership of the excavations delimited in time, excluding general topographic data whose nature must be communicated immediately to the public without any reservation (see paragraph 14 and note 30). Every excavation should be accessible, and the principal results should be announced with the utmost haste.

With regard to the Atlas, the research done on each monument would be sufficient for an essay or monograph, and the recomposition performed for such publications would be justified for their critical implications alone. However, if we had brought such articles and monographs to press, we would have never made the Atlas, which was our principal goal. That is why we are obliged to postpone the publications specific to individual elements. Nevertheless, whoever consults the work will immediately recognize the principal facts and judgments, which will lead them to either accept or reject, completely or in part, a particular reconstruction. In any case, these reconstructions are only a step on a path without end, provisional until the next improvement is made. Definitive solutions are no more than temporary illusions. As every scholar well knows, even the most serious published study will quickly reveal itself to be worthy of correction. So we might as well work with a solid proposal capable of stimulating discussion, and observe how it is received by critics who are free from preconceptions and driven by a constructive spirit (destructive and slanderous criticism more often leads to conflict rather than better solutions).

Consequently, we have no fear of critique; indeed, we invite insightful criticism that allows us to improve the Virtual Atlas and future editions of the book. Our research group will always be free to continue to propose the reconstruction of a landscape or monument, or to favor a new solution with different proportions, regardless of whether it is ours or someone else’s. On the other hand, we were among our own worst critics, given that—as individuals and amongst ourselves—we continually improved the proposals through solutions and amendments, which came into being over long periods of time and endless seminars. Today, such seminars are even possible when the participants are at a distance, through the use of Skype, which also allows the graphics to be studied and retouched over many sittings. But outside eyes will contribute more. It may seem that we have operated in an extraordinary rush. It has been only seven years. However, the speed is due to extremely extensive (and highly unusual within the humanities) cooperation, and to the ability to rework graphics instantaneously. Far greater time and effort was needed when draftsmen were the only available means.

The provisional nature of any truth, which characterizes contemporary epistemology, and the relativity of each of our scientific constructions have led us to foresee a system of correction in which everyone is invited to participate.
by sending new data and better hypotheses, and in which the authors of such contributions will be recognized. That way, the work will acquire an ever more collective character, even if filtered through a single director. Otherwise, ancient Rome would become like Babel.

10. Alternative interpretations
There are alternative interpretations of both single monuments and sectors of the city that have been discussed for some time. They are recorded in the texts but generally do not appear in the tables. The reconstruction of an urban landscape requires coherence in order to be perceived. Such perception cannot be achieved with a heap of contrasting hypotheses. It is for this reason that the planimetrics chosen through critical analysis by the curator, of his assistant, and of his team prevail, unless they prefer to suspend judgment when alternative locations appear. Choices made at the outset may vary over time as judgment matures or new documents or data arise. Any hypothesis, supposition, or interpretation is provisional, since it can always be improved upon and may always fall before new reasoning and new evidence. The debate between technical topography and reconstructive archeology has no reason to exist. The system permits different data from varying interpretations to coexist within it, be they differences of a logical nature or visual differences in the images. It no longer makes sense to sacrifice the significant links between data and ideas. The cura-
tion of the Atlas is therefore based on coherent reasoning, even if provisional and therefore in a state of constant development.

Reconstructing the images of ancient Rome in detail and in general, putting together the useful things and the beautiful things, is an endeavor that pushes the limits of possibility. It is not just a matter of the totality of the infrastructures and constructions with all their types and variants, but also the ancient literary sources, the cartographic representations, paintings, and graphic images of the urban landscapes and single ruins, the inscriptions, the images on coins, the waterworks and sewer systems, the building techniques, the tiles and bricks, the paints, the stucco and marble intarsia, the architectural decora-
tions, opus signinum and mosaic floors, the sculptures, fixtures, and minor objects, the history of digs and excavations, the photographs, and the great urban stratigraphic excavations that started in the 1980s, that finally provided a scientific anatomy for the wider areas of the city.

11. First of all, identify
The main focus of our information system is to identify the greatest possible number of significant things, namely monuments, from between the tenth and ninth centuries BC and the sixth century AD, to be articulated in periods and phases, and composed in Augustan regions. The city was divided into these regions in 7 BC, but we hold that their practical efficacy is a valid convention for later eras as well, since the entire city cannot be approached as one region. Rome has traditionally lacked a system capable of individuating ancient monuments. Until now, single findings were absorbed into significant
entities, which, when not recomposed into topographic units, were reported in tiny bits of scattered information. A large number of the monuments of Rome have been incorrectly interpreted and often lack names and recognition codes. In order to identify ancient monuments, numbers must be employed, just as they are needed to identify stratigraphic units. The code we chose combines the roman numeral of the Augustan region (as considered in the interpretation provided by the Atlas and understood as a conventional and invariable portion of the urban expanse, an idea provided by Angelo Bottini) with a number in Arabic numerals assigned to each single monument. So VIII 52 indicates the Augustan region VIII, topographic unit 52, which is the Temple of Vesta. At this point, we have identified 13,190 monuments in Rome within the fourteen Augustan regions.

12. A virtual museum of the city
Rome is an emblem of every other urban center in the West. To Freud, who knew Rome’s topography well, the city represented an ideal metaphor to describe the timeless characteristics of the unconscious and human memory. Rome, considered as a gigantic production of man rather than a mound of sculptures and paintings housed in museums and scattered ruins, still has no museum of the city itself. Nobody has been concerned with this enormous gap for many years, despite the fact that the creation of such an institution should be one of the capital’s first cultural ambitions. The sculptures, paintings, art, and lesser objects acquire their significance only if reduced to the urban context whence they came. They need to be considered within their spatial reality, in the passage of time and in the overall context in which they appear. As one can see in paintings and prints, the ruins of Rome have always been reused and inhabited by the poor, whose human condition is rarely reflected therein. So Rome is made up of things from the past along with those that are living—at least until archeologists strip the flesh from them and place them in museums. A museum of the city is therefore even more necessary, since our museums rarely illustrate the contexts whence the pieces have come and never recount their ordinary lives in an educated manner.

In the absence of a real museum of the ancient city, the Atlas carries out the function of a virtual city. In a nutshell, it contains a scientific and informative preview of the real museum, which is struggling to come into being in the buildings between Circus Maximus and Santa Maria in Cosmedin (while the absurd idea of a “centurion” amusement park survives). The ideal would be for Rome’s traditional archeological museums to form an exhibitory system conceived in relation to the realia that endure in the open, for the most part without any explanations. On the other hand, what is buried and therefore unseen should be included in the current city. This can be done using the marble Forma Urbis from the beginning of the third century BC (which most of the public ignores), plus the old excavations that have been covered (monuments that were discovered, to some extent documented, and then destroyed), and electromagnetic waves, which can peer into the depths like X-rays in the body.24
The Balbi Crypt is a magnificent example of an exposition that tells the story of a single place in Rome from ancient times up to today. But this is an isolated initiative—consideration for mirabilia prevails in Rome, such as the flashy ruins of the central archeological complex and the grand Capitoline and Vatican museums. Yet the attention to individual masterpieces and flashy monuments distracts from the consideration of the city as a whole, which is essential to understanding it. This is what should be offered first to citizens and visitors, starting with a model of late ancient Rome (though admirable, the model by I. Gismondi is largely invented and now out of date). The missing museum of the city (like the missing museum of the history of Italy) could provide a portal capable of encouraging the public to visit the less well-known sites and museums (again, just as a museum of the history of Italy could entice them to parts of the peninsula beyond the most obvious routes).

The Italian cultural tradition, which is more dedicated to aesthetics, has rarely focused on the joy of contextual historical knowledge considered from a three-dimensional and cultural perspective. Things such as aqueducts, roads, city blocks, and public and private buildings could not be exhibited anywhere except those places where they still show themselves (often without any signage, although suitable signage has finally appeared in the House of the Vestal Virgins, and we hope the same will spread throughout the Forum and Palatine Hill). Most of the grandiose architecture and more modest constructions appear to the visitor as nameless tableaux, as though walls, capitals, and trabeations could narrate their own story without any assistance besides the acanthus. This is the result of an aristocratic and idealistic conception of archeology that reflects a desire of the petite bourgeoisie to imitate a prince or cardinal of the ancient regime. This kind of behavior in today's civilization of the masses makes one smile. We treat the excavations as though they were frequented solely by noblemen, accompanied by learned tutors who at the slightest gesture provide their lord with the necessary information. Today, numerous Asian citizens who know little about us come to Italy, as well as Americans and Europeans who are unlike those of former generations who could reconstruct the narratives themselves. There is no need to exhaust them in reconstructions and explanations; this calls for seriousness and concision.

In Rome, we need the courage to innovate, but its own grand past and formidable tradition inhibit innovation. There is a tendency to copy a past that has been lost. However, if we do not act as the times require, it will impede our retelling, and the ancient Romans will end up looking like nothing more than dusty old pieces of junk. Computers and multimedia are well suited to narrating universal exploits. One need only think of the precious experiment below Palazzo Valentini (due to the efforts of Piero Angela).

Yet the museum of the city of Rome, should it ever come into being, must also contain objects, those that languish in warehouses and do not appear in other museums. Why would they catch a distracted eye? In our own lives, do we look only on that which is beautiful?
13. The guts of Rome

Rome is a “pluristratified” city, and the fact that the tumultuous and random from whatever period may choose to present itself anywhere is part of the city’s charm. It is a charm that shall never fade. However, the grand monuments that emerge here and there throughout the city are primarily from the imperial era. So the city of the Republican and kingdom eras remains out of sight and out of mind, to say nothing of the high medieval period. Furthermore, ancient Rome is not a city normalized by fires and urban planning, with the exception of Campus Martius, domus Aurea, and Testaccio. To truly know a part of the city is to know it in its entirety. Even fascist Rome is subtly apparent in the center of the city (with the exception of via dell’Impero, where all subtlety is lost). Via dell’Impero is a laparotomy into a living city, in which the organs of different functions and eras contrast with one another, recalling and obscuring the work of time.

While the late medieval, Renaissance, baroque, and neoclassical city (to say nothing of the successive periods) exists there before us, mostly standing and comprehensible, the Rome of the high medieval, ancient, and protohistoric ages blooms only here and there in little strips or gashes in the city’s modern appearance. We must once again immerse those monuments in the logic of their original settlements. They need to be reconstructed (first in an information system, then a museum of the city) if we want to understand how they existed and lived. Otherwise they remain nothing more than the fascinating ghosts of a Piranesian landscape, completely lacking in any poetry. Without understanding their context, they become mere mementos of a sterile, defeated greatness, beautiful views that offer memories but tell no stories. After all, the city does not explain itself. It is not a museum. It teases us by showing a bit of leg, but hides the rest. Shall we remain satisfied with so little?

The guts of Rome became known when a hectare between the Forum and Palatine and Velian Hills was investigated; a place where the virgin soil was actually unearthed, as finally happens to those who write about excavations for twenty-five years. An ample and long-lasting dig was executed through the entire stratification, which reaches a depth of about 13 meters between the Forum and Palatine. If we do not delve into these guts, then we are simply coming into contact with an abstract skin and are apt to forget that below the surface lie well-known, less well-known, and unknown elements and contexts that are both more complex and satisfying than anything above them. Thanks to the systematic excavation of the northern slope of the Palatine, between the Arch of Titus and the Temple of Vesta, we now understand that every monument represents variations on a theme, and that each theme is preceded by other themes, which in turn are articulated in their own variation. This is the music of Rome. A monument always presents different periods and phases, be it the most ancient and well known or those that are only suspected, as with the Walls of Romulus and the Sanctuary of Vesta, which date from the heart of the eighth century BC. Of course, the same monument is often preceded or followed by discontinuous elements, or by nothing at all. The Walls of Romulus are
preceded by the huts of a proto-urban district that was destroyed to make way for Rome's first public works, while the Sanctuary of Vesta arises in a clearing in woods outside those walls without any historical predecessor.

It was long believed that Rome dated from the second half of the seventh or the first half of the sixth century BC; that is the story that has been historiographically diffused. However, today archeology can make the clear argument (based on an enormous and well-ordered quantity of data) that the origin of the city and "public entity" dates from approximately 750 BC. This birth was preceded by another, even more ancient origin: the proto-urban center. It was unified, but not yet centralized, and can be dated between the mid-ninth century and the second quarter of the eighth century BC. Yet the formation of the montes and the colles is even earlier: the first half of the ninth century, when there were distinct and rival settlements present. And before that there were villages. . . .

In Rome, a sanctuary, a public building, or a street varies not only in form and building technique, but also in three-dimensional position, even if it is within a limited space. This makes the city pulse and oscillate like the sea, but it can be perceived only if we consider the constructions in a long-term perspective. Yet Rome remains fundamentally itself: a disciplined, though unplanned organism. Drastic transformations (like that at the center of the city in AD 64 and that of the domus Aurea) may occur by way of blackouts or ambitious urban projects, but these upheavals are rare and occur within limited spaces. So it is the urban disorder that prevails, as is suited to an open and spontaneous city.

In the end, the ancient city as we know it through the widespread planimetrics in manuals and guidebooks never existed in that selective, episodic, and confused state in which buildings appear together that never existed in the same era. Rome is vastly more complicated and rich, but also more consequential and logical, than historians, antiquarians, art historians, and topographers have depicted it in considering only the flashiest and most famous monuments in an anthology of marbles. The city is dense and complicated, but it is no mess; messes are made when antiquarians study in a haphazard manner. They have not given attention to the lesser known or unknown. Fortune has smiled on the most sensational, but Rome is made of modest constructions interwoven with more showy architectural works, as one can see in Genoa or Naples today, so that the promiscuous, dignified, and disreputable together weave the pattern of their mutual quarters. The most eye-catching bits of ruins pop out because the other, less salient bits are also there. The true beauty in those piles of ruins is that life exists in the high and in the low, in the beautiful and in the ugly, in the sublime and in the functional, complete and fragmented, which is the essence of all human life, both single and collective.

14. The general interest in archeology
A reformed cultural mindset is a precondition for carrying out an archeological endeavor such as The Virtual Atlas of Ancient Rome. All the data regarding each ruin or excavation must come together in one archeological
information system. This includes personal scientific intellectual property rights (the American Academy still has not published the Regia excavated by F. Brown in 1935 and 1964–65). A sphere of public interest must be formalized, which is to say the unalienable right of the community to have the essential data available for a general understanding of the city and its territory. Up until now, this public interest has been neglected in the service of the numerous selfish and powerful elites who, though they may be rivals with one another, stand together in the cult of elitism. This leads to a practice known to all, though apparently without solution, of the fragmentation, dispersion, obscuration, and enshrouding of data.

The essential data contained in the graphics of an excavation, whether old or new, are not the property of the excavators, just as the mobile and immobile specimens found in the research are not. There are intrinsic reasons for this, such as their public essence and the public funding of the documentation and excavations, but it is also because the true intelligence derived from the monuments lies in the comprehension of the widespread network of relationships among them. If the links of this network are broken due to hidden data in unpublished or poorly edited reports, it biases the interpretation and comprehension of them all. Therefore, the general results of the excavations must become part of the public's patrimonial knowledge as soon as they see the light of day; the archives and warehouses of the Oversight Commission must become computerized and accessible to civil servants and scholars; the archeologists who excavate must cease to consider themselves the owners of things and begin to see themselves as being at the service of all scientists and the public at large. Open excavations in the open city!

This sensitivity toward public service and freedom of research should be reinforced in administrations and academies. It is that sensitivity that characterized the great inventories and corpora of the 1800s. Idealism looked down on those works as dull Bausteine, when in fact they were precious foundations. At this point, we have moved beyond the typological presentation of materials: architecture over here, sculpture over there, ceramics yet elsewhere. We are now driven by a typological-stratigraphic-topographic awareness of a contextual character. So once again, we return to the archeological information systems whence we began, the only ones to provide integrated management of this enormous mass of data. For the first time, these systems allow for something that has long been yearned for but remained unfeasible: all-inclusive archeology. They are the result of a cultural battle against archeological backwardness. These systems are the continuation of what brought us the typological classification of series of products, the "English" stratigraphical excavation, and the sophisticated field recognition methods and card reports for formalized documentation that replaced excavation "news" and "journals" and old-fashioned archeological papers.

Just before the sudden end of his industrious life, Riccardo Francovich wrote the following regarding the archeological information system of Florence: "The centuries-long Florentine research . . . produced an immense mass of
materials that has slowly been dispersed in different archives and warehouses, whose recomposition becomes ever more difficult with the passage of time. Their scattering to the back shelves and various offices, as well as the difficulty of accessing documentation kept in those offices... contributes... to an even more critical situation. Guardianship should have the goal of rigorous archiving and the placing of documents from field research at the disposal of the public, starting with the suitability of the warehouses where the materials are kept. Making the data of an excavation public... is the only way to control the veracity of the delicate process of constructing archeological documents." Here we have everything stated in a few words: making available, suitability... How we miss you, dear Riccardo!

This problem was addressed by the Joint Committee for the Creation of Archeological Information Systems for Italian Cities and Their Territories, as desired by Francovich, which proposed adopting certain requirements (ratified by ministerial decree) and instituting a systemic technological infrastructure for archeology that would finally make the data available on a network of knowledge open to everyone.

It was the monarchies that triumphed over the opposing and rebelling lords and nobles to found the great European states. In those places where localism and weak states prevailed, such as Italy, the corporate interests of domineering groups and individuals continued to prevail over the general interest in a prolonged medieval period. Clan-like traits can still be found today in Italian administrative and academic culture, where individuals think primarily of themselves instead of themselves and the public interest together, as the members of a ruling class should. These incorrigibly selfish individuals cause great harm to both the conservation and appreciation of cultural goods and the intellectual playing field, which require the free movement of knowledge and ideas, rather than discretion, privilege, blockades, and cliques. Cloistering is not only seen among the various corporative groups, such as those within the academic and administrative power structures, but also within them, leading to the fundamental data of general interest being withheld from colleagues by colleagues, from one local entity to another, from the local entities by the national administration, and even among workers within the same administration. We need to promote a sense of state and public interest in the freedom and right to know about cultural goods, which (I hasten to add) are usually identified, researched, and preserved thanks to public funding (in compliance with the Italian Ministerial Decree dated 22 December 2009).

In the heinous manner detailed above, monopolies and oligopolies of groups of monuments were formed by specific institutions, or, more precisely, by individuals within those institutions who often impede Italian and foreign scholars alike from effecting research, resulting in damage to their studies. If, nevertheless, some outsider should succeed in elaborating a novel proposal that does not jibe with the credited official stance, that person is mistrusted based on a poorly concealed principle of lèse-majesté. This clear sign of our backwardness may occasionally be recognized, but only to be promptly forgotten.
Despite Rome being the universal city par excellence, it is difficult for the interests of both the Republic and the cosmopolitan spirit that characterized the birth and fortune of the city (and which should be permitted to survive) to triumph. Is Rome merely a province?

The Atlas is moved by public interest; the surviving feudalists of knowledge, who feel they have been deprived of treasures that don't belong to them, look upon the work with great anxiety. Yet if the curator, assistant, and school of the Atlas were moved by meager motivations, they would never have launched into a project that, as soon as it was published, would negate any exclusive privilege for itself. They would not have placed all their accumulated knowledge and work at the disposition of the public, including all and excluding nothing. They have done this not for love of publicity or fame, but for a love of a wider and farsighted knowledge. The publication is not for the glory of this or that monument, but of all the monuments at once for the greater glory of a series of generations. The spirit of public interest is further reinforced by the collaboration of all who consult the Atlas, who may strengthen it by pointing out incomplete elements, errors, missing data, and new data. Everyone is invited to participate in this collective effort, which, even having been started by a school, seeks nothing more than to be surpassed, that the work may be made ever more encompassing, with the school continuing to exercise the direction that alone can transform the dispersed dissonance into ordered polyphony.

We received unflattering criticisms for this project, even before the Atlas was published, and we have also taken these into consideration (simple maliciousness aside). On the other hand, preserving a tradition that blocks any development is more difficult than swimming against the tide of innovation. However, we are even being challenged by the new generation. Yes, we have overcome the antitypological and anistatigraphic barrier of the two former generations, and we shall also overcome the antitopographical barrier that delays the documentation and general reconstruction of ancient Rome.

Freedom, brotherhood, egalitarian law, and civic virtue must prosper in the republic of the antiquarians, and of the archeologists.

15. Landscape as spontaneous order

To conclude this introduction with an attempt to define an urban or rural landscape made by man is an arduous task indeed! We wish to understand its artificiality in aesthetic terms, as though it were a work of art, but we realize that it is impossible to evoke an aesthetic sense in the absence of an author, of the head of a school, of a precise artistic will. Who designed the streets and roofs of Rome, Florence, and Chianti, or the terraces of the Cinque Terre? It is natural to turn to history rather than art, since history is a chest that holds so much more. With it, alongside the masterpieces, we can also frame inglorious pieces, series, and anonymous works that have given shape to countryside, villages, towns, and cities. Yet even this is not equal to the task, because history examines decisive acts made by a well-defined person or group of people, just as
art examines those high-quality works made by a master or a school. We must frame landscapes within long-lasting historical phenomena that can be attributed to the work of generations of humans, such as the evolution of clothing or the socioeconomic life of a people or a part thereof. This is the most appropriate and favorable perspective for understanding the landscapes of fields, trees, and roofing tiles.

Landscapes, the containers of all containers, whose principal characteristic is their spontaneity, are the most complex human orders our minds are capable of grasping. They are composed of a number of huge projects at the will of individuals or small groups, projects that are not typically discerned, augmented, composed, and harmonized with one another in a planned or even partially planned manner. This is why the historical and artistic value of a landscape is presented as a pleasantry, an involuntary beauty, the result of desires and actions accumulated in space and over time. Consider terraces for cultivating sloped land and urban structures. They are the result of an infinite number of minute jobs performed by everyone, at the general will of no one in particular, and their organization is therefore not the deliberate responsibility of any one person. Under such circumstances, we are able to identify certain types of long-term works, but neither people nor personalities. We can speak of aesthetic value only in those well-defined places in which the texture of collective work has been woven into a building, a garden, or an orchard previously designed at a work desk, as occurs in architecture worthy of that term and in works of art.

So landscape is an ordered structure that is predominantly spontaneous and only partially planned. In ancient Rome, we can consider the imperial palaces of Palatine Hill, the park of the domus Aurea with its two residential epicenters, the Imperial Forums, Campus Martius with its regularly displayed public monuments, and the gateway warehouses of Aventine Hill (where Testaccio stands today) wherein the planning is evident. However, beyond these planned parts, the rest is tortuous, irregular, motivated by tradition more than reason, based on mountains, hills, districts, and main roads of a precivic origin.

It brings to mind the thoughts of Friedrich von Hayek regarding the phenomena of spontaneous economic organization, such as those generated by a market: “It would be no exaggeration to say that social theory begins with—and has an object only because of—the discovery that there exist orderly structures which are the product of the action of many men but are not the result of human design. . . . Spontaneous orders are not necessarily complex, but unlike deliberate human arrangements, they may achieve any degree of complexity. . . . In any group of men of more than the smallest size, collaboration will always rest both on spontaneous order as well as on deliberate organization. There is no doubt that for many limited tasks organization is the most powerful method of effective co-ordination because it enables us to adapt to the resulting order much more fully to our wishes, while where, because of the complexity of the circumstances to be taken into account, we must rely on the forces making for a spontaneous order, our power over the particular contents of this order is necessarily restricted” (Law, Legislation and Liberty).
In complicated situations such as landscapes, in which centuries of incalculable human labor are in play, the consideration of salient unique events is inappropriate and petty; such events are immersed in a context of collective actions that themselves have formed the terrain, be it rural or urban. In these complex and collective circumstances, it is incorrect then to extrapolate single pieces of architecture, single Italian- or English-style gardens, or even sophisticated cultural patterns (regardless of how picturesque they might be) from the continuum of cultures and constructions. Instead, an overall study of a portion of territory—revealing the development, continuity, peak moments and moments of crisis, common and exceptional works—is most appropriate. Hence, we have an interest in the holistic and interdisciplinary reconstruction and documentation of landscapes (contrary to anthological selection), which leads us to an essential need for topography contextualized within cities and their territories that cannot be postponed sine die.

Within general lines, no portion of ancient Rome is the cultural property of anyone, but rather belongs to everyone. It is only as a whole, through synthetic analyses, that it can be properly understood. Ruins as fetishes of the past; ruins as metaphors for the fall of civilizations; ruins as scattered fragments, coupled with the refusal to place them into significant compositions; these approaches are contrary to the integral and general assessment of landscapes, which are more than single pieces extrapolated from the matrix that generated them.

Great art often sheds light on its context, far more than that context illuminates the art. Landscapes, however, behave conversely. The structures of regular human labor can make the well-designed, grand creations shine far more brightly than the magnificent structures could ever project their light on the workaday. City and countryside exist, survive, and function within the inextricable integration of the ordinary and the delightful, the humble and the sumptuous.

At the end of this work, as we page through the tables of the Atlas, moving from one region to another, one monument to another, one period to another, we perceive the flow of the city in images. In the attempt to represent it in all its aspects, we have attained a dual sensation: we believe we are there in that place and time, while at the same time we are aware of looking over it from another place, from another time. It is similar to that emotion we had as children when, both serious and playful, we lost ourselves in a disturbing and fascinating game, while still feeling the comfort of our families’ voices elsewhere in the house. It is my hope that readers will have a similar feeling, the sense of being able to see and almost inhabit the ancient urbis as we do the current city that is its heir. Perfecting the representations of Rome, making it perceivable and pleasant for everyone, is a task that we have only just begun. There is still so much to study, to do, and to make known. Rome is an infinite essence that computerization nearly captures.
Rome in flight and Rome in freefall.

1 Borges, El Aleph, Buenos Aires, 1952.
2 Curtius and Kaupert 1878.
3 Interventions by Hülsen and Rivolta 1912, pages 107–8; Ashby 1928, page 112; Colini 1978, page 2; Cartagno 1985; see also Zevi 1989; Palombi 2006b, pages 285–86.
4 Carandini 2008.
5 Table 3 was reviewed and republished as a supplement to the Lexicon Topographicum Urbis Romae.
6 Azzena and Tascio 1996, pages 281–97. D. Palomba’s criticism is incomprehensible when he claims that “a significant limit of the methodological procedure adopted by Lanciani in the Forma Urbis Romae must be recognized in the tendency towards an absolute periodization—often historically forced and technically dubious—between the Republican structures and the imperial structures both in the representation and in certain placements of monuments which are exclusively known by means of graphic documents... or descriptions of different origins and chronology.” (2006b, page 287, n. 456).
7 Carnabuci et al. 2004, pages 408–44.
10 In 1912, Ashby had already highlighted the lack of detailed archeological maps for the other cities of Europe. For recent archeological maps of Rome at the time of Augustus, see Palombo 1993 and Dumser 2002. For the topography of Athens, see Grocco 2010, 2011.
11 We consulted: the preparatory drafts of the Carta Archeologica di Roma: (Archeological Map of Rome) of the Soprintendenza Archeologica di Roma; the Gatti Maps preserved in the State Archives of Rome; and the Lanciani sources kept at the Biblioteca dell’Istituto Nazionale di Archeologia e Storia dell’Arte. We still must consult the Giornale di Scavo (1873–1955), the Fondo Vittoriano (Archive preserved by the Soprintendenza), the Codici Lanciani at the Vatican Apostolic Library, and the sources of the Capitoline Historical Archive (see Carafa, Information System).
15 The author and Paolo Carafa carried out the scientific development and coordination of the project for free.
16 Carandini 2008.
17 Joppolo 1983.
18 We agree that it must be possible to return to the single findings that contributed to the determination of the topographic unit: see Carafa, Information System.
19 See below.
21 See the work carried out on the homes of Octavian Augustus in two monographs: Carandini and Bruno 2008; Carandini, Bruno, and Frazzi 2010.
22 See below: Carafa, Information System.
23 In order to understand the Freudian metaphor, one must visit the Museo della Cripta di Balbo (Balbi Crypt) in Rome, where there is an extraordinary multiperiod model: Manacorda 2007.
24 Carandini 2007a, with bibliography.
26 Carandini 2005a, 2010a; Galli della Loggia 2011.
27 Carandini and Carafa 2000a; Carandini and Papi 2005; Arvaniti 2010; Carandini, Carafa, Filippi, D’Alelio c.d.s.
28 Carandini 2012.