

# City Portrait(s). Towards a *Bilderatlas* to Generate Original Compositated Illustrated Texts

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## Abstract

*Images of the city must be compared against a complex organism that changes over time. They can take shape on a sheet of paper or in digital space, but can also become mental images that populate our thinking and condition our perception of the city itself. Each image conveys the Author's gaze and is received with the observer's gaze: just as the ability to represent changes depending on the time and place to which the Author belongs, so with the ability to see images. The creation of a digital platform would make it possible to valorize the iconographic heritage belonging to a city: by visualizing the images in a diachronic and synchronic sequence, their communicative register is understood and they are rendered as parts of a unitary story.*

*It is hypothesized that, through the user's participation in the implementation and interrogation of the platform, it is possible to generate an unprecedented composite figurative text of the city so that, in the manner of the *Bilderatlas Mnemosyne*, it becomes a tool for thinking through images. Users will contribute to writing a tale, narrated simultaneously from different points of view, which will have as its subject both urban transformations and the evolution of the ideal image that, in the various representations, the city gives of itself. Through a tale thus conceived, the user will become both its Reader and Writer and with new and original mental associations give shape to new stories about the city.*

*Keywords: images of cities, maps, views, multi-perspective storytelling, shared representation.*

## Introduction

Images of the city must be compared against a complex organism that changes over time, they can take shape on a sheet of paper or in digital space, but also become mental images that populate our thoughts and condition our perception of the city itself, a perception that changes in space and time. Each of them is characterized by a different point of view, meant both in the projective sense of the term and in that of an ideal point of view coinciding with the author's gaze which conditions the way one sees, and at the same time represents, the city. The choice of the point of view together with the purpose for which the author creates the image and the period in which he works, contribute to defining the communicative register that gives form to the image itself [1] (fig. 1).

## Representations of lived space and its extensions

Among the different families of representations, those which have the lived space as their object present the widest range of types and variations, resorting to the full extent of representative methods and conventions, from the figure to the sign, from the concept to verisimilitude. In this instance, it includes all those figural devices –from figurative patterns to elevation plans, from taxonomic drawings to zenithal plans– often extensively referred to as maps, which perform a mediating function between man and the world, not only physical-geographic, through an organized system of graphic-linguistic figures and signs related by a context. Every representation is, in fact, above

all, a giving order to things by attributing a position in space to them; and it is the level of the contextual reference that conveys the substance of the message and the contextual pressure [Eco 2009, p. 116] that gives coherence to the entire system. Because, to unfold communication, a sign system, as all symbolic writings, needs a spatial reference system, a context that supports both communication and the figure of communication.

Putting it on 'paper' therefore means arranging it in a space such that each graphic-linguistic figure and sign, in relation to the other elements of the set to which it belongs, fulfills a function and takes on a pertinent meaning. And therefore, every representation, and thus also every map, is first of all a topical device [Anceschi 1992, p. 103].

To understand the whole range of meanings that convey the figurations that have the inhabited space as their object, it is necessary to recall the different enunciative modalities, which can be summarized in the description and in the tale. In the description the gaze is "without a point of view", while in the tale it is that of "a moving traveler". In the first case, the vision is totalizing and synthetic, the interpretation unique; the prototype is the zenith plane. In the second case, spatiality is the weave of possible itineraries; the different points of view are revealed according to the path undertaken and the temporal dimension is introduced by the motion within space; the prototype is the portrait [Marin 2014, pp. 80, 81].

It is equally necessary to indicate the different languages adopted in communication. The abstract one of signs and symbols which, making what is continuous discrete, makes it possible to distinguish, and therefore to know via the difference: a difference in altitude, vegetation, or demographic structure. A discontinuous knowledge founded on

hypothetical-deductive reasoning which acts through argumentation and is based on the reliability of the data. The visual one of icons and images, which acts by virtue of the resemblance to the subject which is figured. A continuous knowledge based on similarity that is achieved with aesthetic modalities: the information is metaphorical, i.e. based on assertions or injunctions of similarity.

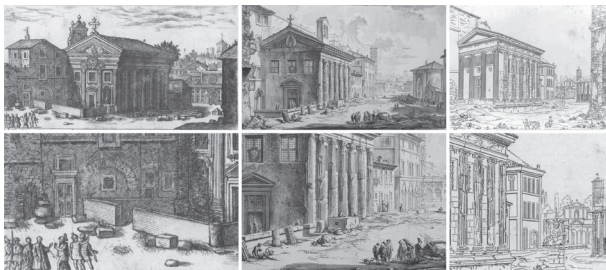
It is therefore also essential to replace the criterion of realism with that of verisimilitude because the 'sight' of places, real or virtual, through a process of remembrance, always activates particular emotions in the observer (fig. 2).

Among the images of sites, the images of cities are certainly among the most effective, because they act thanks to that intimate and profound relationship that the sites build with individual and collective sensitivity, triggering a wide range of emotions through which they convey significant contents. The images of the city are therefore affective images, capable of activating a sentimental transport; tender images used as "vehicles of emotion and as palaces of memory and meditation" [Mangani 2007, s. n.].

According to this view it is therefore possible to understand the function of the images of cities in the *Universal Chronicles*, illustrated stories of the world; as for example in those of the hermit theologian Giacomo Foresti [Foresti 1486] or of the humanist doctor Hartmann Schedel [Schedel 1493]. They are cities of memory, of images for thinking and of a thinking in images; devices for formulating thoughts that support the text constituting the very logical structure itself, therefore it little matters that the same image serves to represent several cities (fig. 3).

But more generally, representations of cities, even when constructed as descriptive interfaces of reality, are always a particular interpretation that allows not only physical but symbolic control, participating in the definition of knowledge that is shared and to be shared. The images of the city, like all the figurations of lived space, always carry out an action of cultural mediation [2]: instruments of political, military and power propaganda or expression of the community and of belonging to the city, in which more and more points of view coexist, at least those of the draftsman/contractor and the recipient/spectator. But they are albeit an interface with the value of initiation to the knowledge of the deepest values and meanings of the city, to be conducted by immersing oneself in the representation that remains faithful only to itself, to the reason that generated it, resisting unchanging to every change imposed by history [De Seta 2011].

Fig. 1. The temple of Portuno as depicted by various authors: Giovannioli (1616), Piranesi (1758), Acquaroni (1828) and relative details.



## The different points of view of city images

The choice of the point of view from which to represent a city is never accidental, but derives from a precise communicative intention of the author who reveals the wish to highlight some of the characteristics of the urban organism. In this sense, Cesare De Seta has proposed a taxonomic classification of city images starting from the position of the point of view, distinguishing between the 'profile' with the observer placed at ground (or sea) level but at an almost infinite distance; the 'perspective view' with the observer positioned in a real station point but at a higher altitude than that of the city; the 'bird's eye view' with the point of view placed very high in order to observe the city in its entirety; the zenith plans, where the point of view, rising, becomes an improper point and the direction of projection is orthogonal to the plane of the city [De Seta 2011, pp. 30, 31].

From this classification emerges the variation of the communicative register, which becomes more and more abstract as the point of view rises, moving away from a concrete position which, however, is typical of the views in which the point of view coincides with that of the traveler who crosses the city and conveys the perception of that place [3] (fig. 4a).

The frontal view of the city conveyed in profile is, however exact, almost abstract (fig. 4b). The perspective view embraces the city in its entirety but in it the streets and the details of the buildings are lost in favor of the general description (fig. 4c). In the bird's eye views, the framing extends to capture the entire urban agglomeration together with the environment that surrounds it, while the expansion of the road surface the urban scenes to be shown from which the monumental buildings emerge, represented out of scale with respect to the minor building fabric (fig. 4d). The communicative intention of the zenith plans is oriented towards a claimed accuracy of the representation, in fact the observation of the city from above favors an objective description of the urban morphological system and of the relationships that exist between its parts, to the detriment of the perceptive rendering of places as they are experienced at eye level (fig. 4e).

However, it is necessary to underline the instrumental function of this classification. The authors have often deliberately departed from the 'rules' that define the different classes, which therefore are not to be understood in

an absolute way, therefore "only an analytical investigation of each urban image can reveal the mechanisms of its construction and its 'betrayals'" [De Seta 2011, p. 31]. Furthermore, each class can undergo infinite variations by virtue of the correspondence with the reality that the Author intended to determine in the image, because each of them, as any graphic representation, "is always an interpretation and therefore an attempt to explain the reality itself" [Massironi 1982, p. 55]. Conveying one's interpretation of reality in a graphic representation, through an 'encoding', always implies making choices, which involve a variability in the degree of resemblance or abstractness, or of iconicity or symbolism of the image itself.

The same variability can also be found in the zenith plans which, although sharing the same position of the point of view and the type of projection, differ in relation to the model of figuration adopted (fig. 5). Instead, what unites all the zenith maps is the intent to show, to the viewer of the map, what cannot be seen, but only imagined, in crossing the city or looking at it from a real observation point, however high. For this reason, the zenith plans, despite being representations where the abstractness of the communicative register used claims to show the objectification of the measure [4], are to be considered as particular tales about the city and therefore are to be included in the category of 'city portraits'.

Fig. 2. François Chauveau, *La Carte du pays de Tendre*, 1654; the imaginary map of Clélie's emotional itinerary, engraved for Madelaine de Scudery.





Fig. 3. Hartmann Schedel, *Cronache*, 1493; the same view is used to depict Verona, Ravenna, Pisa and Toulouse.

‘Looking’ at the world as it appears,  
‘seeing’ the world as it is

The zenith representations of cities are abstract visions that cannot be experienced by the human eye, yet, the ability to think about them, and give them a consequent shape through drawing, has been seen since very ancient times [5]. But even this type of representation oscillated between objective images and ‘tales’, figurations aimed at expressing a mystical thought derived from a cosmological conception that involved the identification between ‘Heaven and Earth’ [6]. In different ways, the civilizations of the past have traced signs on the earth by looking at the sky (through the erection of dolmens, the construction of temples or the preparation of axes along which to structure territories and cities) and have imagined seeing the earth from above, raising the point of view vertically, to a sidereal distance, so as to dominate it. But if between the *Forma Urbis* (3<sup>rd</sup> century BC) and the map of Imola (1502) by Leonardo da Vinci, few other examples of zenith representations of built cities can be found [7], it is because, until the 18th century, the desire to produce images that narrate ‘the world’ prevailed rather than represent it through drawings based on ‘measurement’. The slow process of refining topographic measurement techniques that began in response to the changed needs of a social, economic and military nature, found a turning point in the fifteenth century. Maurizio Vitta writes, regarding the role of images in the story of the known world, that “Precision subtracted the cartographic image from its role as a

mirror of reality and launched it into an increasingly abstract dimension, which ended up assuming within itself every content of truth. In 1445 Leon Battista Alberti inaugurated in the *Ludi rerum mathematicarum* the technique of azimuthal triangulation for terrestrial surveys which paved the way for modern cartography. [...] Mathematical abstraction became a guarantee of realism: the absolute correspondence between the cartographic space and the physical space was made possible thanks to the abolition of the latter in the former” [Vitta 1999, p. 172].

Thus, if we pause to reflect on the development of technologies related to the measurement and representation of the city and the territory, we cannot but highlight how the variation of the position of the view, understood in the physical sense, is closely connected to it. The distance between who measures and what must be measured has progressively advanced and has expanded in recent decades: sight has lost its role as a measuring instrument and drawing has lost its function of deducing, with the scientific method, the position of a point starting from the application of simple geometric rules.

The progressive elevation of the point of view has changed the ways of exploring the world and distanced the body from what it observes and measures. At the same time, the gaze is no longer exclusive, it no longer belongs only to those who choose to explore and describe the city, but the gaze is ‘other’ on the world, to which everyone can have access: paradoxically, it is no longer the view of aviators (as predicted by Le Corbusier), of topographers, or of



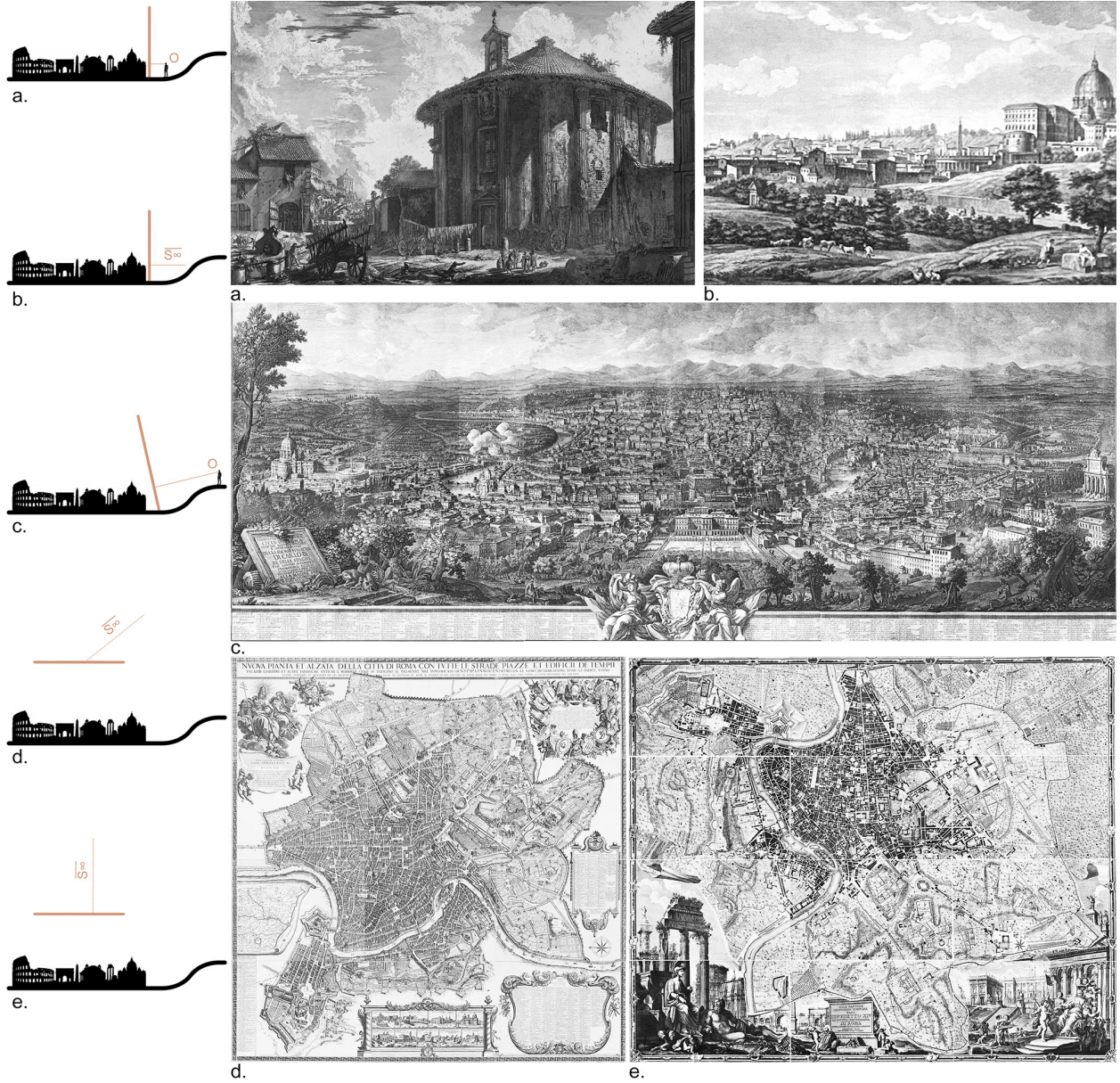


Fig. 4. A comparison between the various iconography categories and relative scheme indicating the position of the point of view (graphic elaboration by the authors).





Fig. 5. Different degrees of iconicity in the zenith plans: Piranesi (1746-1756), Nolli (1748), 3rd Engineers Corps (1900) and related details (graphic elaboration by the authors).

geographers but of information technology, massively accessible on the net.

The representation of the world conveyed by satellite images claims to be objective (and for certain uses, with some approximation, it is): the aspiration, which has always existed, to build a complete and exhaustive map of the world seems to have been achieved, a feat –typically Borgesian– which presupposes a grotesque coincidence between reality and image: as useless as impossible to achieve [8].

The conceptual transition from ‘the world of approximately to the universe of precisely’ [9] records, in the field of surveying, an enormous leap forward which, moreover, presupposes the equivalence between precision and quantity. *Google Earth* may not be a geographical map but

a ‘geospatial application’, as some define it, but it certainly represents the largest source of information that allows us to “draw on ten petabytes of geographical data in seconds” [Brotton 2017, p. 435].

However, in the field of surveying, the architecture of the city returned in the form of millions of points of the digital technologies still makes us reflect on the fact that data is not information in itself and that a cloud of points, however dense, is not a ‘representation’ or is, at the most, the zero degree of a representation.

Between the ‘objective’ images of the world and the description of the intrinsic characteristics that distinguish one place from another, in fact, the entire distance that exists between ‘looking’ and ‘seeing’ remains unchanged (fig. 6).





Fig. 6. Leonardo Da Vinci's map of Imola (1502) and the 'objective' image extrapolated from Google Earth (graphic elaboration by the authors).

We are therefore called, today with greater urgency, to generalize and to abstract, to interpret and to synthesize, to choose, among the millions of data that we have at our disposal, what to actually use to contribute, through representation, to the advancement of knowledge of a city but also to the transmission of its values, or to the tale of the city.

### 'Seeing' the city through a participatory multi-perspective storytelling

The proliferation of hyper-realistic representations is deluding us that a representation of the world 'as it appears' is capable of conveying to us complete knowledge of it. Furthermore, the amount of images we are continually subjected to is causing us to lose the ability to really see the images and to recognize and understand their intrinsic value.

In summary, the contemporary age is making us become accustomed to looking at the world through representations 'without gaze', making us forget what it means to identify

with the view of the author who portrays the city as he sees it, conveying in a particular drawing, whatever its 'precision', his own interpretation of the world.

This observation gave rise to the desire to reflect on an instrument designed to valorize the heritage of images that belongs to a city and, at the same time, re-educate the gaze to see historical images by participating in the writing of a tale in which they become the protagonists of the narration. The discourse on the city will be composed through the images created from different points of view, considering the meaning of this term both in a projective and ideal sense. As we have seen, the zenith plans are able to show the observer what is not visible when crossing the city but, to do this, they move further away from the sights of the places of experience, typical of those views which instead convey the view of the traveler who crosses them. Therefore, only by integrating the different iconographic classes into the discourse is it possible to reconstruct a simultaneous view capable of outlining a portrait of the city and of holding the different points of view together.



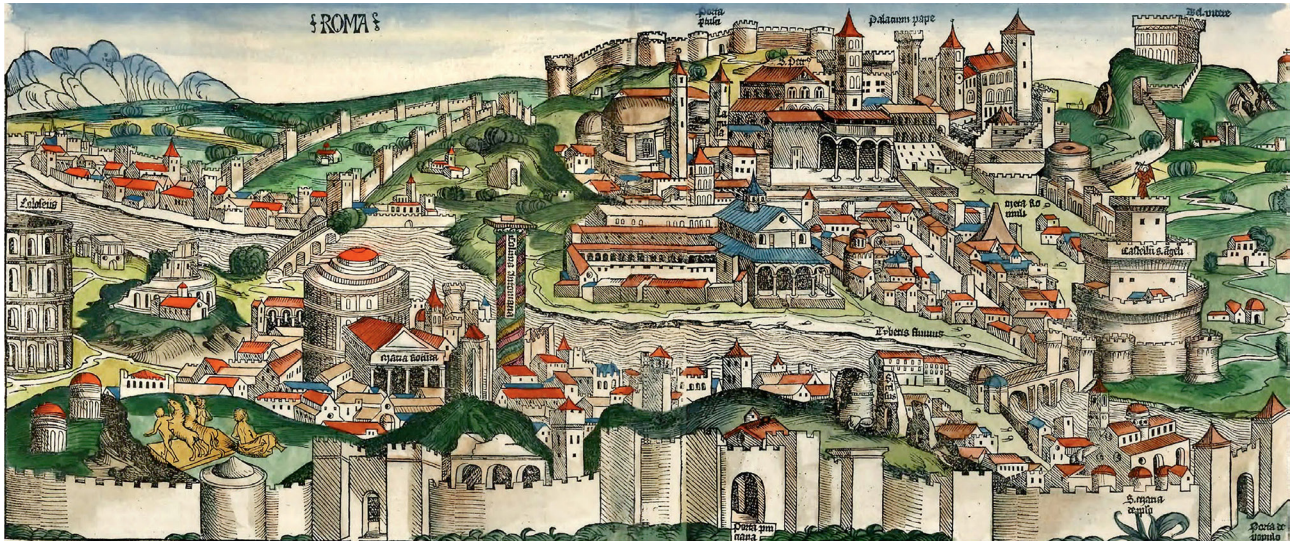


Fig. 7. Rome in Schedel's Chronicles (1493), Galleria di vedute di Roma antica (1758) and Roma moderna (1759) by Giovanni Paolo Pannini.



Even in the hypothesis of being able to write this tale about every city, the research has adopted the city of Rome as a case study, because it is emblematic of how the heritage of images contributes to giving shape, in the common imagination, to an idea of the city that endures or changes over time [10] (fig. 7). Just think of the aforementioned *Chronicle* by Hartmann Schedel in which Rome, unlike other cities, is represented through identity elements that make it perfectly recognizable. Or in Giovanni Paolo Pannini's *Gallerie di vedute* (*Galleries of Views*) where the ideas of 'ancient Rome' and 'modern Rome' are conveyed by the simultaneous vision of the many images produced throughout history specifically chosen to communicate an aspect of the city. Thanks to such a vast cartographic and iconographic heritage, the intention is to generate an unprecedented digital representation of the city by exploiting the system of relationships that can be established between the elements that compose it, writing a different tale each time, starting from the same heritage of images.

This representation will be created by users by accessing a digital platform, structured as a Cartesian plane in which objective time, the timeline, is represented on the x-axis of the abscissas, and on the y-axis of the ordinates the classified iconographies will be arranged according to point of view and degree of iconicity. The insertion sequence goes from the zenithal plan to the partial view with a reduced field angle, accompanying the reader from the general view to the particular view (fig. 8).

The platform is designed to have a metadata substructure that allows the writer user to participate in the narration by adding new maps or iconographic documents from time to time that will be placed in the cartesian plane according to the metadata that he will have associated with each image. The classification of the images will take place in two ways. On the one hand, the documents will be classified with a descriptive logic through a form that the user will compile, in its predefined fields, using keywords chosen from a 'thesaurus'; this will include both pre-set keywords (related to the information necessary for the correct positioning of the document within the cartesian plane, i.e. the framing of the representation, whether global or partial, its degree of iconicity and the position of the point of view) and fill-in blanks (related to the time of creation of the image, the author, the client, the occasion and the purpose for which the image was created). On the other hand, the user will be able to establish associations between the documents, using a graph system, which will provide the system of

relationships underlying the structure of the story, resulting from personal interpretations not directly identifiable through the association of common keywords.

The metadata system will guarantee the possibility of querying the platform and, in this mode, the writer user will assume the role of reader. In fact, the user inserting new documents with the related metadata will contribute to writing the tale and by querying the platform through the same metadata he will be able to read the tale as it is being created with the contribution of the other users, generating a parallel tale at each query, different every time.

The articulation of the narration into chapters is developed in the upper level of the cartesian plane, in which the zenith maps are distributed which convey the vision of the city in its entirety. These maps –more or less verisimilar– if considered isolated are a portrait of the city at a given time  $t_x$ . Instead, by arranging them along a 'timeline', they become representative snapshots of the temporal succession  $t_1, t_2, t_3, \dots, t_n$ , thus providing a sort of chronophotography of urban transformations. Therefore, through the sequence of snapshots an atlas is created capable of narrating a city through an unedited representation that becomes a narrative text, capable of making explicit the ability of graphic language to make time visible [Fatta, Bassetta 2017].

The platform provides for the possibility of exploring two georeferenced zenith maps in parallel, like two diachronic snapshots (fig. 9). The possibility of simultaneously visualizing the views relating to the urban portion framed completes the narrative regarding the urban transformations that took place in the period between the creation of the two maps, conveying the view at eye level [11].

The orderly sequence of iconographic elements comparable to each other, in addition to defining a timeline, provides a structure to the space of digital representation in which it is possible to place further elements by integrating them into the story. These elements, as anticipated, are part of all the other iconographic classes which together will contribute to completing the portrait outlined by the zenith plans. The ways of 'seeing', the modulations of the view, are technically and historically determined phenomena [Pinnotti, Somaini 2016, p. 40], the contextual visualization of the images produced in the same era makes it possible to understand their communicative register. Therefore, only the heterogeneous set of the different iconographic classes that make up the heritage of a city manages to return a complete portrait of it, because each one is capable of conveying different iconographic contents. Furthermore, images

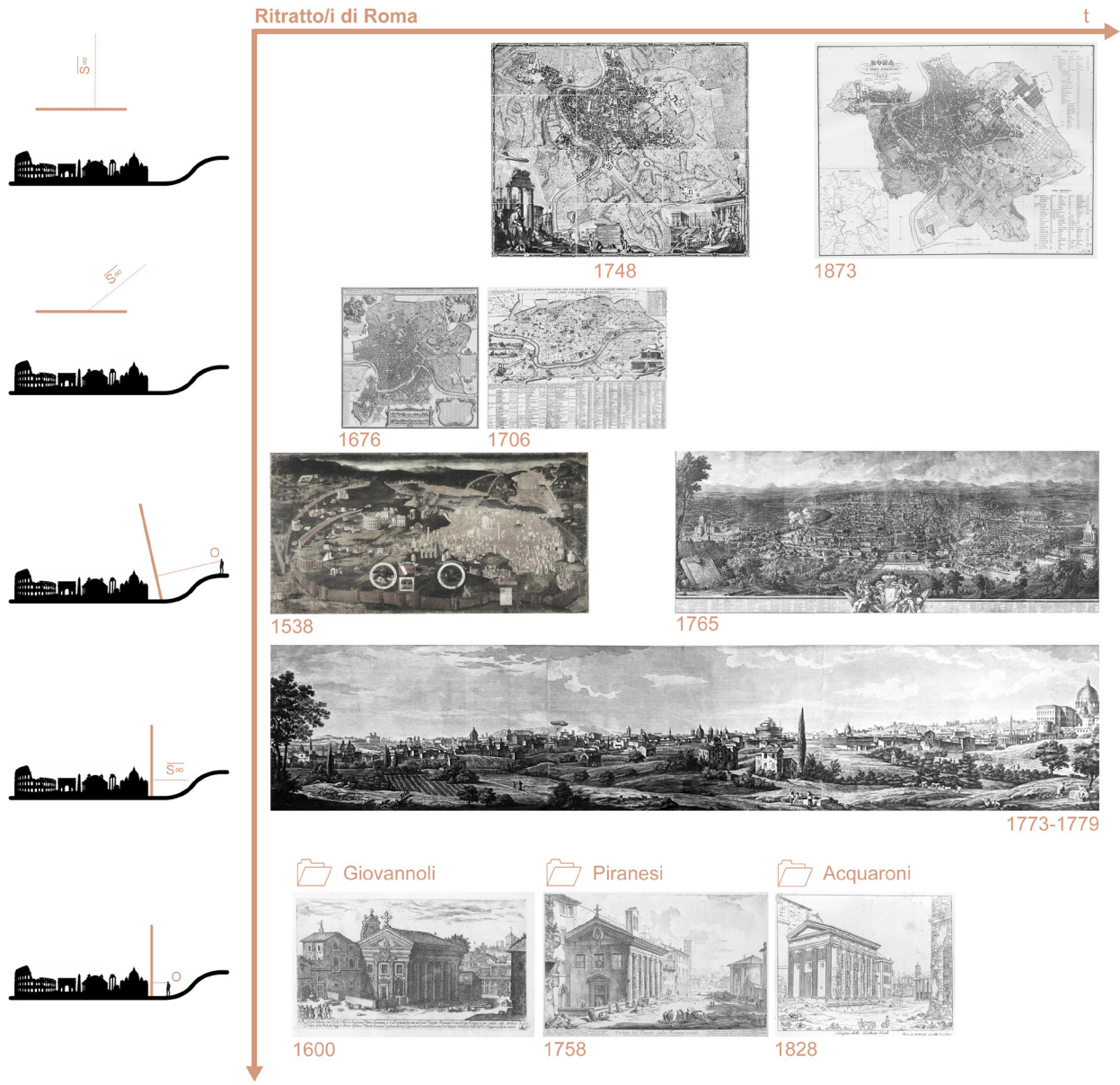


Fig. 8. Visualization of some elements arranged on the Cartesian plane of the digital platform (graphic elaboration by the authors).



Fig. 9. Exploration of two zenith planes and contextual visualization of the views useful in restoring the view at eye level (graphic elaboration by the authors).

“have the power to communicate different suggestions, thus going beyond their task of depicting the contents for which they were elaborated [...] they can open new interpretative paths by triggering associative processes that open up to the unexpected” [Quici 2016, p. 93].

By organizing the maps and the various iconographic documents on this Cartesian plane, a ‘composite figurative text’ is given shape [12] in the manner of Ignazio Danti who, in the *Galleria delle carte geografiche* in the Vatican palaces, leads the Pope on a journey on the Apennine ridge between the Italian regions, through a narration that unfolds between orthographic maps and landscape views, in a continuous reference to miraculous or uplifting episodes, distant battles and more recent sieges [Ippoliti, Valenti 2015]. The digital platform, in its implementation, thanks to the participation of users, will take on the structure of a *Bilderatlas* that evokes Aby Warburg’s *Mnemosyne*, becoming a machine for elaborating thoughts on the city, its transformations and its history. Through the metadata structure it will be possible to interrogate the *Bilderatlas* and generate different types of composite figurative texts, each



Fig. 10. In a composite figurative text, the views of Vasi and Piranesi display two different gazes in the tale of the city, drawn in plan by Nolli (graphic elaboration by the authors).

time writing a different discourse on the city [Marin 2014, p. 89], a text written from the various iconographic documents, which satisfies “the need to understand the dimension of time together with that of space in an image” [Calvino 1984].

By consulting the platform, in fact, it will be possible to generate a composite figurative text by associating to a main image the iconographic documents that complete the portrait of the city in that specific historical moment (fig. 10). At the same time, it is envisaged to provide within the platform the tools necessary to segment those cartographic and iconographic documents which can be considered composite figurative texts in their own right (fig. 11). The user will therefore be able to associate the relative metadata to the individual parts useful for their recognition [13] and, in this way, it will be possible to recompose the individual parts with other iconographic documents, choosing them via the same metadata, on a sort of white sheet to build on it an unprecedented composite figurative text that substantiates the narration of one’s own story about the city (fig. 12).



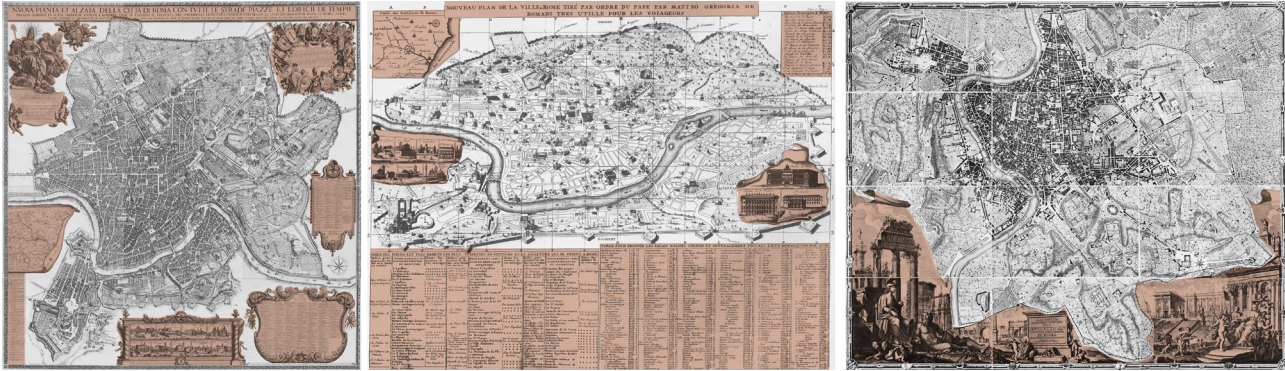


Fig. 11. Segmentation of various composite figurative texts: Falda (1676), Nodot (1706), Nolli (1748).

The interactive *Bilderatlas* will ‘accompany’ the user on a journey through the images that make up the cartographic and iconographic heritage of the city, involving him in the narration, thus allowing him to assume the role of reader and writer, but also giving him the opportunity to become the Author of unpublished composite figurative texts which, taken together, can compose a tale that unfolds in time and space of multiple views of the city.



## Conclusions

Contemporary society is submerged by an indefinite quantity of images, both due to the ever-increasing production and the amount that has accumulated over time, but “this iconographic hypertrophy nevertheless seems to correspond to a growing incapacity to acquire information in a critical sense, to understand the aesthetic values and to recognize ethical ones” [Quici 2018, p. 7].

While aware of the difficulties, in terms of resources and time, that the effective creation of the platform proposed here would require, the conviction remains that the possibility of interacting with the images, participating in the writing of possible tales about the city, stimulates the ability to see its intrinsic values.

The composite illustrated text, which the user-writers would help compose, would take the form of a shared tale about the city, capable of delineating its portrait through the images that represent it from multiple points of view, restoring to them the power to arouse infinite possible tales.

Fig. 12. An example of a composite figurative text that the user could create to narrate the concept of Rome as the eternal city in the 16<sup>th</sup> century (graphic elaboration by the authors).



## Credits

Although the research was conducted by all the authors and the *Conclusions* are part of the shared research project, the paragraph *The representations of the inhabited space and its extensions* is to be attributed to Elena Ippoliti, the paragraphs *The different points of view of images*

*of the city* and *Seeing the city through a participatory multi-perspective story* are to be attributed to Michela Ceracchi, the paragraph *'Looking' at the world as it appears, 'seeing' the world as it is* is to be attributed to Giovanna Spadafora.

## Notes

[1] For example, the scenes represented by Aldo Giovannoli convey the perception of the site, sometimes even through historical or legendary re-enactments, not too concerned about the actual correspondence between image and reality; in his engravings Piranesi emphasizes the dimensions of the ruins of classical architecture with respect to the dimension of the human being, representing the scenes of urban life even in their decadence; the clean and evocative stroke of Acquaroni conveys the image of a city that is facing modernity.

[2] For example, even the choice of a particular form of representation, such as the one in 'elevation' between the axonometric and the perspective, expresses a precise cultural intention, namely that of outlining the urban space above all in its physical and material concreteness. The city is no longer simply the juxtaposition of some singular, albeit notable, elements, as in medieval symbolic figurations, but it is a complex organism. Organism described in its structure and internal articulation, through the highlighting of the relationships between emergencies and fabric and between solids and voids, and returned in its totality and entirety through the exaltation of the perfect balance established with the immediately surrounding area beyond of the walled enclosure.

[3] Think of the numerous collections of engravings, such as those by Piranesi, Vasi, Nibby, Acquaroni and many others, which return the image of the same urban views similar to photographic collections which, in their mutations, tell how the perception of those locations has changed over the course of time.

[4] Maps are interpretative objects and not a duplicate of reality too complex to be depicted in its entirety [Valentino 2020, p. 21]. An extensive and plural examination of the graphic language of maps is provided by the volume *Linguaggi grafici. Mappe* [Cicalò, Menchetelli, Valentino 2021].

[5] Think of the Babylonian *Mappa Mundi* (6<sup>th</sup>-5<sup>th</sup> century BC) which depicts the then known world, circumscribed within a circular crown that represented the Ocean. For further information on the topic, see the volume *Storia del rilevamento architettonico e urbano* [Docci, Maestri 1993].

[6] In this regard, see the volume *Cartografia e informazione geografica* [Lodovisi, Torresani 2005]. Paolo Perulli talks about "Cosmization of the territory", as the creation by man of "an order opposed to chaos [which] made the world habitable" [Perulli 2009, p. 11].

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[7] We are therefore referring to the surveys of existing cities and not to the projects of ideal cities "based on pure visual representations of abstract concepts" [Vitta 1999, p. 174].

[8] "The Colleges of Cartographers erected a Map of the Empire which equaled the Empire in size and precisely coincided with it. Less devoted to the study of Cartography, the Successive Generations understood that that Map was Useless and, not without Impiety, they abandoned it to the inclement weather of the Sun and Winters" [Brotton 2017, p. 27], quote from the chapter *Del rigore nella scienza* in the text by Jorge Louis Borges [Borges 1961].

[9] In the first edition of his famous essay, in 1961, Koyré argued: "it is curious: two thousand years earlier Pythagoras had proclaimed that number is the very essence of things [...]. Everyone repeated it, no one believed it. At least no one until Galileo took it seriously, [...] Or more exactly, no one has ever tried to go beyond the practical use of number [...] to make it an element of precise knowledge" [Koyré 1967, p. 97].

[10] Regarding the image of the city of Rome, real and ideal, see the studies by Italo Insolera [Insolera 2002], by Jessica Maier [Maier 2015; Maier 2020], by Cosimo Palagianò and Sandra Leonardi [Palagianò, Leonardi 2009], by Mario Bevilacqua [Bevilacqua 2018], and the description of Rome in the *Grand Tour* by Cesare di Seta [De Seta 2014].

[11] An example of parallel exploration of two cartographic documents is provided, in relation to the case of Milan, by the platform <<http://www.ritrattidicitta.it/>> (accessed June 4, 2023). While, an experiment in the contextual visualization of various iconographic documents is provided by the platform <<http://vasi.uoregon.edu/>> (accessed June 4, 2023), of the University of Oregon. The platform proposed here proposes to integrate these functionalities.

[12] The term is used by De Seta to describe those iconographic documents relating to the city in which, alongside its image, there are allegorical or symbolic images, legends, explanatory texts and dedications [De Seta 2011, pp. 5, 6]. An example of 'composite figurative text' is provided by Louis Marin with the representation of Strasbourg—Argentina versus Septentrion—by Barbier and Striedbeck [Marin 2014, tav. 1, p. 33; pp. 84-90].

[13] An example of the possibility of using segmented cartographic documents by associating information to individual portions is provided by the <<http://nolli.uoregon.edu/>> (accessed June 4, 2023) platform of the University of Oregon.

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