

# Reflecting on the Legacy of Kevin Lynch's Cognitive Approach to City Design through Italian Didactic Experiences

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**Abstract:** In Italy, the writings of Kevin Lynch (1918-1984) have had great influence. However, if *The Image of the City* (1960, trans. 1964) enjoyed a prolonged success, other texts attracted a fluctuating attention. The reasons for this variable interest help reflect on the current usability of Lynch's lesson: the relevance given to social perception; the need to give voice to citizens' needs; a performance approach to the project as a participatory process. The ability to stimulate a reflective attitude explains why, in Italy, Lynch's legacy has found its major expression in teaching. Recent experiences at the Universities of Rome and Trieste – also suggested by the Lynch's centennial – show how his texts still constitute a reference to approach urban analysis and design, being completely involved in the physical perception of the places and listening to the inhabitants' stories. Didactic activities highlight further exploitation of Lynch's theory in terms of: the importance of learning by interaction; a better understanding of urban space and social practices; the drawing of projects from mental maps. Nonetheless, when working in the historical parts of Italian cities, the character and uses of urban spaces urge us to adjust Lynch's categories, thus, in fact, confirming their critical capacity and timeliness.

**Key words:** Kevin Lynch, visual survey, urban design, education, Italian city.

## 1. Introduction: A Still Usable Perspective

In Italy, still today, *The Image of the City* (1960, transl. 1964) remains Kevin Lynch's most popular book [1]. Its popularity is also linked to the long lasting interest that the lesson of the American planner has collected in the frame of university education, with specific regard to the fields of urban design and planning. Over time, this attention has extended to other works by the author, sharing a perceptual approach to the analysis and design of urban space.

Based on recent teaching experiences at our Universities also suggested by the Lynch's centennial,

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the purpose of this article is to understand the usefulness that his theories still have in contemporary education. In the following paragraph we give an interpretation of the Italian success of some of Lynch's works. The aim is to investigate both the reasons behind a fortune, which has fluctuated over the decades, and what makes Lynch's cognitive approach relevant today to addressing new urban dynamics and issues. The third section focuses on the didactic values of the theories proposed by the American author. These values are specifically investigated in the fourth and fifth paragraphs, in relation to the results from university courses developed in Rome and Trieste. The last section explores the strengths and weaknesses of the Lynchian approach implemented with the students.

From such considerations emerges the recognition of important legacies, whose endurance and richness are still evident. Lynch suggests a different way of looking

at the city starting from a dialogue between expert and non-expert knowledge. His proposal concerning a verbal and visual language addresses to schematic representations of spatial sequences, and helps focus on design objectives and performances.

In spite of the quoted advantages, some weaknesses appear when this methodology is related to analyzing historic contexts.

## 2. A Variable Interest, a Present Lesson

There are many ways to explore Lynch's fortune in the Italian debate about teaching urban design and planning. Our text points out a step-by-step approach, through different levels.

The first level focuses on how the success of the texts translated in Italy intertwined, over time, with the Italian reflection on planning and design theory and practice. The second level provides suggestions for placing Lynch's lesson in the frame of contemporary debate, in order to better understand why we are facing today a renewed attention to this author's thought and methodology.

### 2.1 Critical Fortunes and Misunderstandings

*The Image of the City*, published in America in 1964, was quickly translated in Italian four years later by Gian Carlo Guarda, a former student of the American planner [1]<sup>1</sup>. This was the first translation abroad, followed by many others in various languages. In Italy Lynch was well known since the 1950s. After his research travels to Venice, Rome and Florence in 1952-53 [4, 5], personal contacts with outstanding figures of the Italian debate were established, feeding the interest towards the researches that this author was

developing with Georgy Kepes at the Massachusetts Institute of Technology (MIT)<sup>2</sup>.

Lynch's theories were a reference in important conferences on the regional scale of urban processes in the 1950s and 60s<sup>3</sup>. In the frame of a deep criticism to current cognitive and planning approaches, his studies on the perceptual form of the metropolitan region, on its "legibility" ("we must consider not just the city as a thing in itself, but the city being perceived by its inhabitants"), and "imageability" ("that quality in a physical object which gives it a high probability of evoking a strong image in any given observer") [1, pp. 3, 9], offered new tools. They helped to overcome typological and functionalist theories applied to urban analysis, that were judged inadequate to understand the multiple characters and uses of urban networks.

In those years, the search for innovative ways to communicate and design the visual form of the "city-region" also addressed the attention towards *The View from the Road* (1964), as a further development of Lynch's perceptual lexicon. Donald Appleyard, Kevin Lynch and John R. Myer focused on "the esthetics of highways", as a "means to re-establishing

<sup>1</sup> The Italian publisher, Marsilio, was established by a group of graduates from the IUAV University of Venice. In the series directed by Paolo Ceccarelli, Lynch's book was among the first ones to be published, along with the translation of Lloyd Rodwin's *The British New Towns Policy. Problems and Implications* (1956, trans. 1964) [2], followed by Rodwin's *The Future Metropolis* (1961, trans. 1965) [3], where the texts of Lynch ("The Pattern of the Metropolis") and Gyorgy Kepes ("Notes on Expression and Communication in the Cityscape") appear.

<sup>2</sup> After WWII, Bruno Zevi (bachelor degree in Architecture at Harvard in 1943) played a strategic role in building relationships between the two coasts of the Atlantic [6]. In 1954, Zevi prepared a list of speakers for the Italy-America meeting on urban and regional planning to be held in Ischia in 1955, including Kevin Lynch, Lewis Mumford and Catherine Bauer. Although none of them was finally invited to the seminar organized by the Italian Ministry of Public Works (with the collaboration of the United States Operations Mission, and the Italian Institute of Planning – INU directed by Adriano Olivetti), this demonstrates an early interest towards Lynch's work. In 1957-58, Ludovico Quaroni was visiting professor at the MIT, where he had direct knowledge of Lynch's studies. Giancarlo De Carlo had prolonged exchanges with the MIT as well (especially with Lynch and John R. Myer): during his visit in 1967, and in the 1970's.

<sup>3</sup> The official entry of Lynch in the debate of Italian planners took place in 1959 at the 7<sup>th</sup> INU National Congress dedicated to "The Face of the City", where his studies were quoted by Vittoria Calzolari, and implicitly taken up in the round table discussion among Ludovico Quaroni, Giancarlo De Carlo, and Eduardo Vittoria [7, 8]. A stimulus to abandon a «formal idea of the form» to visualize an increasingly complex urban reality is also given by Ludovico Quaroni's speech at "The new dimension of the city – The city-region", the national seminar organized in 1962 by the Institute of Lombard on economic and social studies – ILSES, directed by Giancarlo De Carlo [9].

coherence and order on the new metropolitan scale”, and as “a good example of a design issue typical of the city” [10, p. 2]. Fundamental Italian publications, like *La forma del territorio* edited by Vittorio Gregotti (1966) [11] and Ludovico Quaroni's *La torre di Babele* (1967) [12], paid a debt to this research, offering an opportunity to discuss how to integrate architectural design and planning. Since then, *The view from the Road* has had great success in Italy, even if it was only partially translated in recent years [13, 14]. It still is a reference for the description of the relationship between infrastructures and landscape, and of the synergies among spatial transformations, social practices and mobility.

However, if Lynch's books concerning his cognitive approach keep a persistent fortune, other texts have had a variable success. This was the case of the works focused on planning and design theory, or on particularly advanced anthropological and ecological views. Both *What Time is This Place?* (1972, transl. 1977) [15] and *Managing the Sense of a Region* (1976, transl. 1981) [16], readily translated<sup>4</sup>, have gone through periods of fast obsolescence. None of the three editions of Lynch's fundamental work, *Site planning* (1962, 1971, 1984) [17, 18], has been translated into Italian. The attention to a performance approach to urban design was too different from the regulative and functional attitude towards planning that still characterized Italian theory and practice at that time.

*A Theory of Good City Form* (1981, transl. 1990) [19] deserves separate consideration. When translated (and reprinted in 1996), this book aroused a decent interest, in the fields of architectural design and planning. At that time, research and practice (driven by urban regeneration issues supported by European Union and national funds) reflected on urban quality,

and on the need to develop participatory processes to address design results towards better social and environmental performance. Today, although the memory of *A Theory of Good City Form* seems to have blurred, these issues are even more at the core of the Italian debate: after the period of urban expansion and sprawl, strong importance is given to the reuse of existing urban spaces, the restoration of their comfort and livability, and the use of quality criteria within planning tools. No less is the current attention to the social perception of landscape (again fed by European policies) [20] and to “dross-scapes” planning and design, resilience and urban metabolism [21]. In this frame we can better understand why many recent books and researches have re-discovered both the posthumous and heterodox *Wasting Away* (1990, transl. 1992) [22]<sup>5</sup>, and *Managing the Sense of a Region*.

From the 1960's onwards, the most enduring influence is nonetheless that of *The Image of the city*. It was re-printed ten times in Italy, with the first digital version in 2013. Relevant impacts of this book regard planning experiences, their graphic and symbolic language. In 1964, Giancarlo De Carlo, in designing Urbino town plan, assumed Lynch's visual categories to explain the relationship between structure and form of urban space and landscape [23]. Since the end of the 1980s, several landscape plans have resorted to a perceptual analysis to better understand the visible characters of a region [24]. From the last decade of the past century, general references to a deeper understanding of the role of people's sensitive experience of urban spaces and to inhabitants' active involvement in planning can be recognized. According to Bernardo Secchi's descriptive approach in his Italian plans, it is necessary to “educate the gaze, to see and to show how the city is made”; at the same time it is important “to listen”, in order to “to get in touch with social practices as they are experienced and

<sup>4</sup> These books were published by Il Saggiatore, in the series directed by Giancarlo De Carlo “Urban Structure and Form”, for which many other classics of modern planning have been translated (Le Corbusier, Soria Y Mata, Patrick Geddes, Christopher Alexander, Clarence Stein, etc.).

<sup>5</sup> The book was published with the support of Legambiente, one of the most popular environmental associations in Italy.

told by their protagonists, to catch diverse temporalities, to reconstruct micro-stories, to recognize common images and myths, to write down what appears as an impediment to the complete unfolding of different actors' individual and collective projects" [25, pp. 141-42]. A hint to Lynch's visual code can also be found in the Bologna town plan coordinated by Patrizia Gabellini (2008). Here schematic representations of the city and its neighborhoods are based on the use of performance criteria resulting from the integration of experts' work and public consultation [26].

In Italy there were, however, many misunderstandings concerning Lynch's lesson. His reflection both on the transactions between person and place, and on the planner's interactive role was frequently moved to the background. The interest focused more on a top down use of techniques for analyzing and prefiguring city images. The importance of the perceptual knowledge of a city to re-think planning as a democratic and participatory process was often less understood [27-29].

## 2.2 *Rethinking Lynch Today, a Hundred Years after His Birth*

Lynch's visual and performance elements and criteria are meant to re-build planning practice on the identification of shared values, images and needs. It is therefore no coincidence that, in Italy, the impacts of Lynch's thinking have been more fruitful when the planning discipline intensely questioned itself on changes in the territory and the society, and on the necessity to overcome expert self-referential approaches to survey and design.

Nowadays, in describing the present and imagining the future of Italian and European cities, the need to confront with the emergence of a "new urban question" is strong. We are facing huge and dramatic migrations, unprecedented forms of the city and of citizenship. These transformations invite us to refocus on specific issues: environmental and climate change; difficult

conditions of mobility and accessibility to housing, public spaces and welfare services; growing social and spatial inequalities between the rich and the poor [30, 31]. In more general terms, these issues bring to the center of contemporary debate the extension of the "right to the city" to larger parts of the population whom this right is, in fact, denied [32, 33]. References to Lynch's cognitive approach – even though with a persistent predominance of *The Image of the City* – can be therefore found in many recent Italian publications and young researchers' works, questioning the effectiveness of urban planning and design on the protection of environmental values and non-renewable resources (air, water, soil, energy), the development of livable public spaces and cities that are inclusive for a variety of populations, habits and cultures.

In the present days Lynch's teaching proves to be better comprehended in its depth. His approach fosters reflection on the multiple dimensions of a city, both of physical and sensory nature, linked to different ways and times of use. Talking about new esthetics of contemporaneity means understanding urban spaces, as they are daily lived in by people, and how their characters can contribute to improving wellbeing. Coherently, Lynch invites us to rethink city design as a dialogue with spatial and social contexts, animated by different desires and expectations. If the aim is to actively engage a variety of actors, the use of perceptual experience can help establish a connection between the language of the expert and that of the common people, re-linking a project strategy to the citizens' needs. In the frame of this process, the relation between design and participation goes further the simple expert's translation of social demands. It involves rather a prolonged and intense work, aimed at giving voice to the inhabitants, enhancing the awareness of the positive and negative aspects of their living environment, and fostering their active role in city design.

It is with reference to these issues that Lynch's lesson maintains a strong effectiveness in providing

young planners with the theoretical and practical tools necessary to deal with the challenges of re-designing sustainable urban territories.

### **3. A Cognitive Approach: Listening to the City as the Basis of City Design**

Also due to the influence of John Dewey, Lynch has always given a central role to the education of students, as part of his civic engagement. This clearly emerges from the didactic character of his books, their continuous connection between theoretical principles and practical suggestions, written and graphic language. In Lynch's opinion educating means combining reflection and action, knowledge and experience of that urban space which he recognizes a fundamental pedagogic function. Among the "elementary skills" that are "indispensable" to practice "city design", he puts the development of a "sharp and sympathetic eye [...]. Prolonged field observation and conversation with people is a very good way to learn it. [...] We become ourselves engaged, and sense our own emotions. We learn to empathize with the feelings of others, to see how places must seem to them. In dialogue, we begin to discover collective images of the possible" [34, p. 655].

It is therefore not by chance that, in Italy, Lynch's lesson has enjoyed a persistent legacy in the realm of university teaching of urban design and planning. Using it in university courses has often led to reread not only the best known *The Image of the City* [1], but also other texts such as the *The Travel Journals*, *Notes on City Satisfactions*, and *The View from the Road* [4, 5, 10]. All these books, together, describe and develop Lynch's cognitive approach, offering students a first overview of his richer theory.

Lynch's lesson encourages different ways of investigating city spaces (surveys, interviews, questionnaires, literary descriptions, etc.), going beyond those which are more disciplinary and based on morphological analysis. It helps mature the capacity to interpret the synergies between urban

materials and social practices, and to open up the exchange with other points of view. Such an attitude actively involves students, mainly because it is based on diving into the observed reality in order to directly capture its suggestions.

In this way, one learns the ability to deal 'at a glance' with the variety of urban phenomena, but avoiding their trivialization. The purpose is to tackle complex issues in a critical way, passing through the subjectivity and corporeity of those who observe and are observed, in order to draw descriptive and design-related indications of some general sense. With an apparent lightness, this attitude urges us to question how spatial form – far from easy determinations – interacts with the ways people use and assign values to places. In other words, Lynch's approach invites students to reflect on the complex synergies between the *Urbs* (the stable and physical space) and the *Civitas* (the people and activities changing over time).

The lesson offered to young designers, often animated by the desire to impose their own images and 'discoveries', is equally important. Lynch's texts propose to focus on the goals that the design intends to pursue, on their argumentation and communication, before translating them into strict spatial rules and configuration. In this, he teaches us to be respectful to the places and to those who live there, to imagine a project as part of a flow of events and exchanges that affect different times and subjects.

However, to better grasp the influence of Lynch's approach on didactics, we must refer to concrete experiences. Experiences like those developed in the cities of Rome and Trieste, where his lesson has recently been tested on different contexts, demonstrating its versatility and topicality.

### **4. In the Historic City of Rome: from Conflictual Spaces to Visual Structures**

Moving through spaces, looking around and recognizing structural elements, orienting oneself – these actions are all fundamental to deeply understand



Fig. 1 San Lorenzo district, Rome. Aerial view: 1. Tiburtina Road; 2. Aurelian Walls; 3. Termini Railway Station.



Fig. 2 San Lorenzo district, Rome. The edge of the Aurelian walls.

the many features of physical space, and to conceive any project of transformation. But, in Rome, decrypting the logics and conflicts of a city that was built over the centuries implies a level of abstraction that young students are not yet in possession of.

At Sapienza University of Rome, to develop these skills, urban design courses have been using Lynch's cognitive approach for years. Results of two didactic experiences show, in practice, the importance of combining technical observation with the perspective of everyday life in urban space. They offer the opportunity to reflect on how the attention to the perceptual dimensions of space, associated with those of slow and fast movement, can help capture the values and potential of a contemporary city, its stratifications over time.

#### *4.1 Inside a Neighborhood: Walking and Immersing Oneself in the Urban Space*

The regeneration of existing urban fabric requires the patient work of decoding the context, along with assessing the inhabitants' needs which are often hidden in the traces of formal and informal uses of space. In Rome these tasks become even more challenging, due to the unfolding of daily urban experiences through multiple sequences of places. Extraordinary historical, archeological and architectural preexisting structures are spread

everywhere, even in the less central areas, building an image that is dominated by a strong presence of the past, and that – according to Ludovico Quaroni (1969) [35] – is not easy to decode. In order not to be enmeshed in the great beauty of monumental space, we must therefore involve a sensory approach, search for new types of esthetics that are more consistent with the contemporary experience. To this effect, Lynch's suggestions help take into account the variety of signs and references that give quality to urban space as it is today, in its dynamic aspects of space and time [36].



Fig. 3 San Lorenzo district, Rome. The Arch of Augustus.



The usefulness of Lynch's lesson was clearly demonstrated during some didactic activities developed at the University of Rome, and specifically focused on the regeneration of a neighborhood as a space of everyday life [37]<sup>6</sup>. The neighborhood scale allowed an in-depth work on the inhabitants' habits and lifestyles, use conflicts and spatial appropriations, while putting in the background both the invasion of the tourist flows, and a widespread presence of State institutions and facilities. Choosing this dimension also meant recognizing the 'domestic' and 'proximity' scales of space, even in a large metropolitan area counting 4.4 million inhabitants.

San Lorenzo district was the context of our didactic experiment (Fig. 1). Placed outside the Aurelian Walls (Fig. 2) and crossed by the large consular route Tiburtina<sup>7</sup>, the compact building fabric built from the end of the XIX<sup>th</sup> century is characterized by the presence of popular houses, industrial and manufacturing activities. Today, large railways, a cemetery, former military barracks, and a university campus define the borders of the district, whereas its condition of a physical enclave has somehow contributed to strengthening social cohesion. Over the years, however, the neighborhood has undergone profound changes, due to the progressive dismantling of activities, the still visible voids left by the WWII bombing, the disappearance of the working class. New urban identities have overlapped and erased the existing ones. Sometimes, they contributed to significant transformation of the face of the neighborhood, as happened after the invasive presence of the university within the old factories, and of the students who replaced the original inhabitants. At other times, the reuse of abandoned spaces revitalized

local activities, such as experimental theaters inside old warehouses.

The practice of slow observation and walking through San Lorenzo district proved to be a fundamental tool for young students to approach the project through a careful consideration of people's behavior. Crossing the neighborhood on foot allowed a deeper contact, in time and space, with the social practices that alternate and intersect along the streets, in the courtyards, between the cars, within historical pre-existence and its incongruous modifications. Walking revealed space in a different way from the study of cartography, offering a multi-sensorial perception of both public places and the various and stratified uses they welcome.

Starting from the minimum lexicon proposed by *The Image of the City* ("paths", "edges", "landmarks", "nodes", and "districts"), the direct experience of the neighborhood confirmed paths as the primary element of the current urban image, and of future design interventions. It is precisely roads and pathways which guide one's knowledge of San Lorenzo, as was clearly shown by the students' handwritten "travel journals" of the Tiburtina Road, the main street stretching from the Arch of Augustus built in 5 BC (Fig. 3), where the traces of history overlap with many recent urban materials and memories, and where the most important activities of the district take place. Tiburtina is a busy urban connection with traffic congestion problems; it is the axis where shops, cafes and restaurants are frequented; and it is an edge between public and private space.

Mapping the walks along the road at different times of the day (Fig. 4) offered the opportunity to reflect on "the psychological and sensual effects of the physical form of the city", understand how urban space can provide perceptual and functional "satisfactions", and start developing ideas of city design [5, p. 135]. In this perspective, students were asked to represent the presence (or lack) of: physical sequences and landmarks, grid systems, views helping orientation; a

<sup>6</sup> The reference is to Town Planning courses at the first and third year of the School for Engineers-Architects at Sapienza University of Rome. They host hundreds of students and offer lessons and studio workshops on the issues of urban design and regeneration.

<sup>7</sup> Consular routes belong to the ancient infrastructural network built by the Roman Empire. In Rome, they are an exceptionally unique historical presence, and are still used.

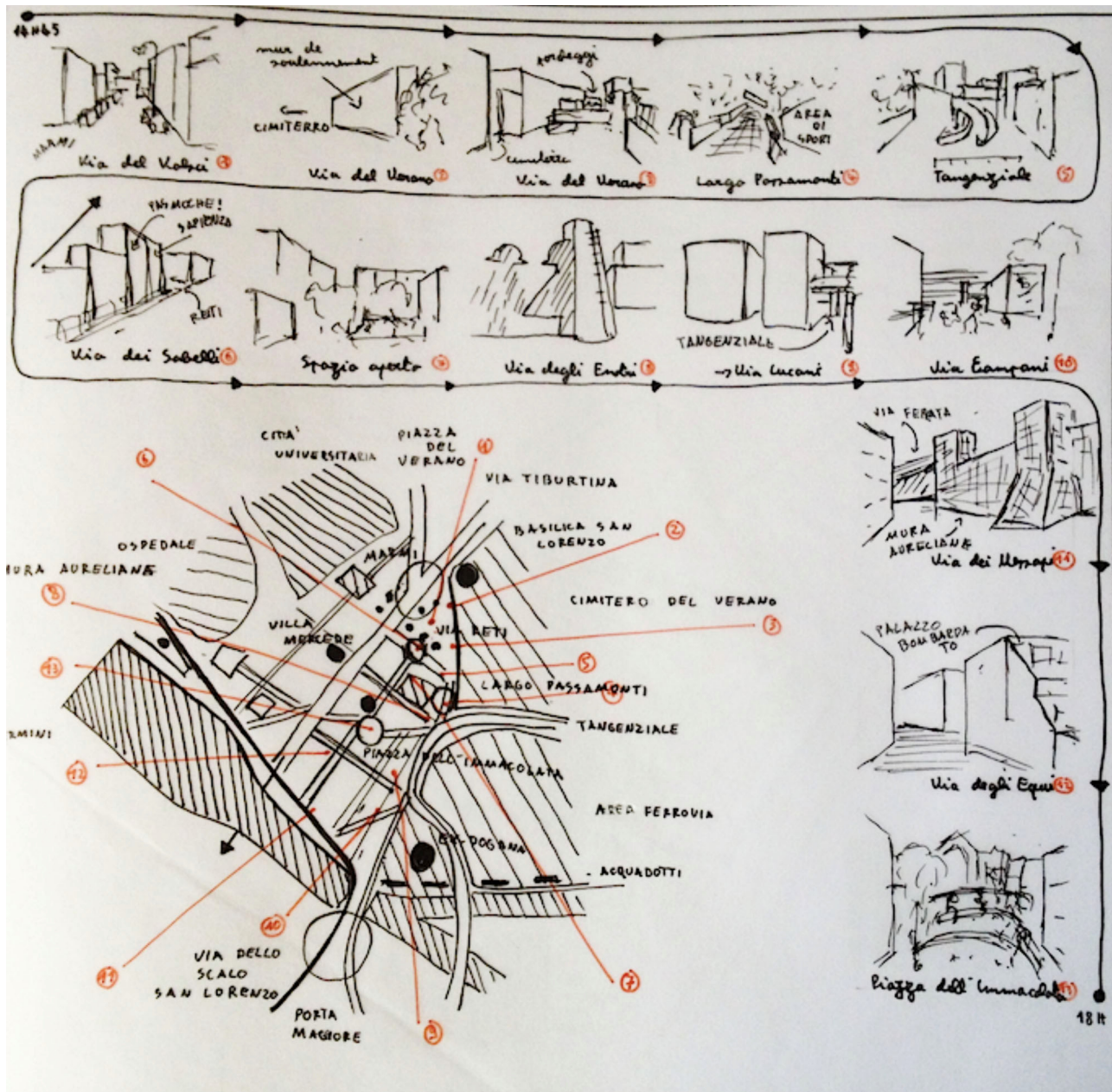


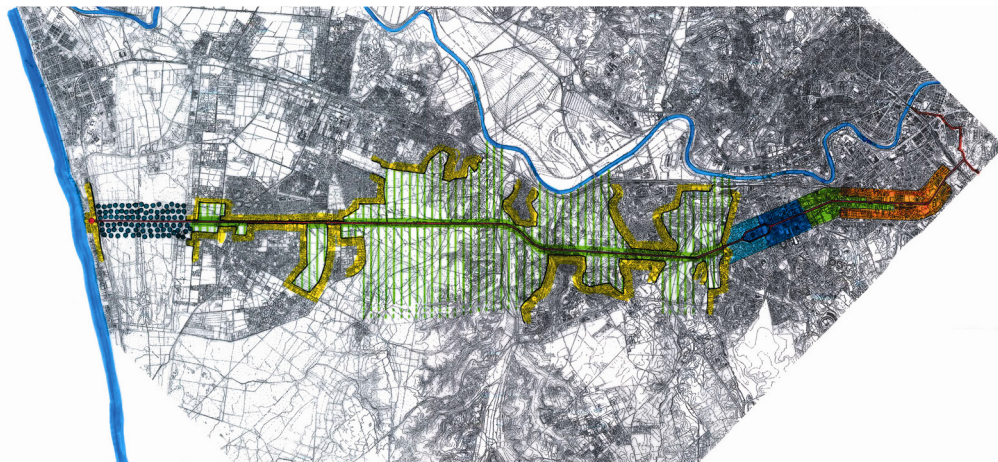
Fig. 4 San Lorenzo district, Rome. Map of a walk along Tiburtina Road: main perceptual elements and sequences.

sense of human scale; a proper balance between stimulus and relaxation; a sensual delight given by colors, smells, sounds; the mix of different activities, movements of people, and their rhythms.

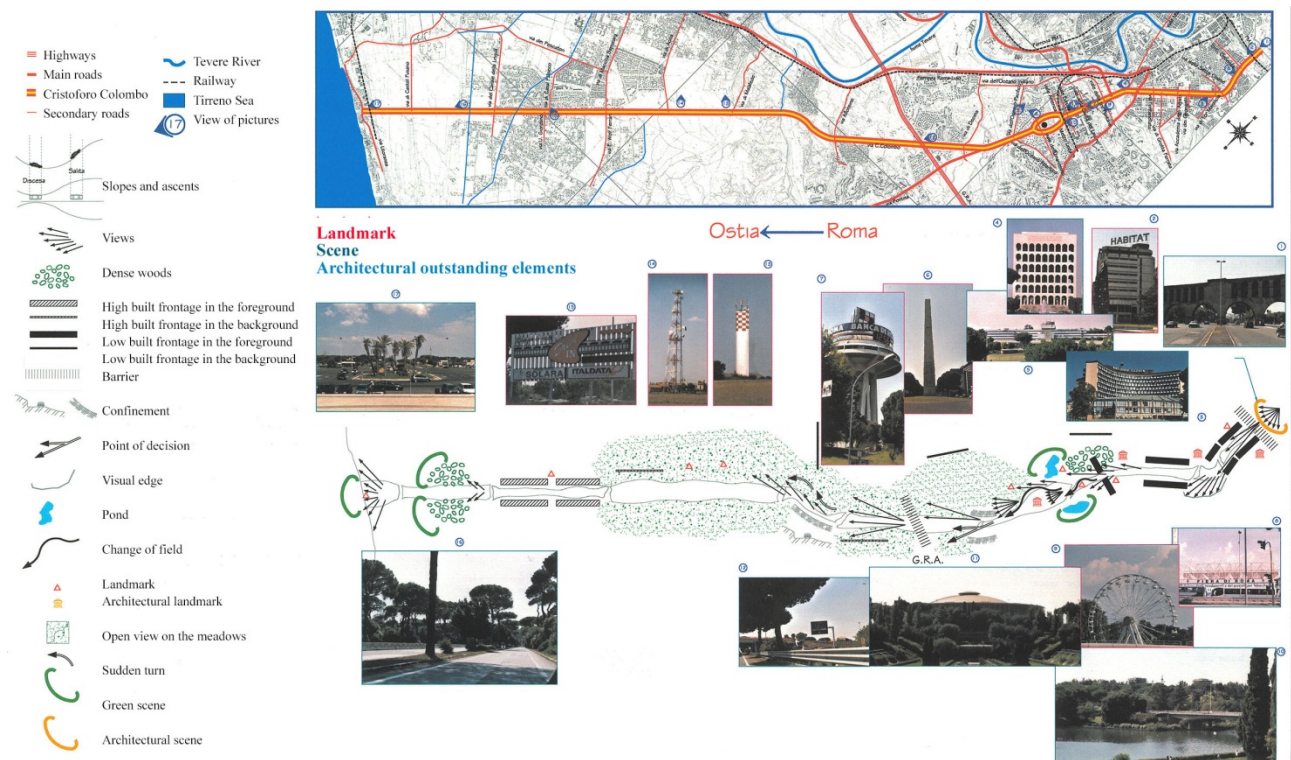
By walking, observing and drawing cognitive maps,

students were stimulated to reflect on how the spatial organization of a street can support (or prevent) the expression of urban life, collect multiple uses – starting from the pedestrian ones [38] – and their eventual conflicts.





**Fig. 5** Cristoforo Colombo Road. Morphological analysis of the edges of the freeway: the dense city (orange); the monumental part of the EUR district (dark blue); the housing part of the EUR district (light blue); housing neighborhoods (yellow); rural areas (green); woods (dotted green).



**Fig. 6** Cristoforo Colombo Road, Rome. Perceptual analysis of the freeway sequences: space, motion and view diagram.

#### 4.2 On the Road: Space Sequences as Dynamic Perspectives

Investigations on dynamic perspectives are necessary in the analysis of road spaces, whereas the slow walking practice has to be combined with the car fast movement. The project should consider these two

levels of perception and of visual changing sensations. In this, *The View from the Road* offers a cognitive and notation code that is complementary to that of *The Image of the City*.

The second design exercise carried out in Rome<sup>8</sup> pursued a twofold objective. On the one hand, testing

Lynch's communicative graphical system, which immediately proved to be more stimulating than a simple verbal or written language, easy to use even though applied to an urban context which is very different from the North American one. On the other hand, making visible the aspects of a variety of spatial structures and sequences.

The chosen context was Cristoforo Colombo Road: the first freeway opened in Rome after the consular roads. Its 27 km long path was designed in 1937 to rejuvenate the ancient bond between the city and the sea, and to link the city center with the Ostia seashore (Lido di Ostia), then being transformed into a holiday resort. The road begins with the Aurelian Walls, and in the first section takes on an impressive monumental footprint, crossing the EUR services district designed for the 1942 World's Fair. After some kilometers, the road gently slopes west and, crossing the hilly countryside, becomes part of the metropolitan landscape.

The students were asked to combine the morphological analysis of the edges of the road (Fig. 5)

with maps reinterpreting the "abstract notation of motion and space", as proposed by Appleyard, Lynch and Myer (Fig. 6). From inland to the seaside, the identification of close-up and background scenes, of the rhythm and layout of the various route sectors, brought to light sequential images that, imprinted in the memory, are capable of stimulating a road sensorial experience. The analysis of the freeway sequences showed the latent values of Cristoforo Colombo Road. Values that, so far, have not been adequately revealed by glances only attentive to static, formal and functional characters.

The focus on the road as a source of esthetic pleasure and as a means to visually reconstruct a coherence among different landscapes gave useful inputs to the definition of design criteria (Fig. 7). The aim was to overcome the simple needs of fast mobility and connection, to fulfill the more complex task to offer the driver the opportunity to "see how the city is organized" [10, p. 3], by establishing a dialogue among the asphalt strip, the ways it is used, and the immediate and distant landscape surroundings.

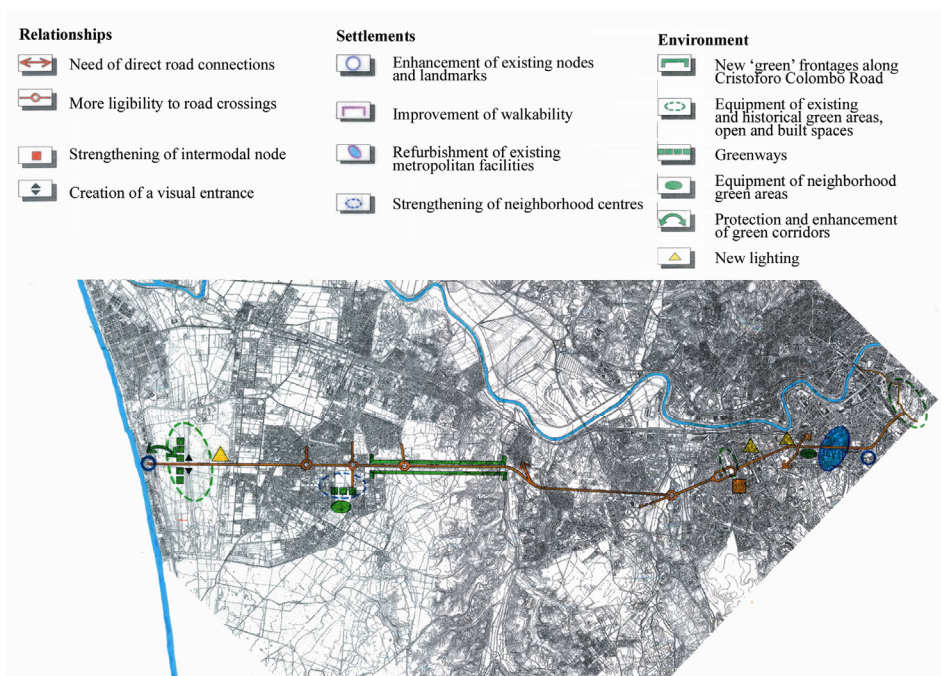


Fig. 7 Cristoforo Colombo Road, Rome. Design criteria for the sectors recognized along the freeway.

<sup>8</sup> The exercise took place within the courses of Town Planning and Design of the Territory and Landscape at the fifth year of the School for Engineers-Architects.



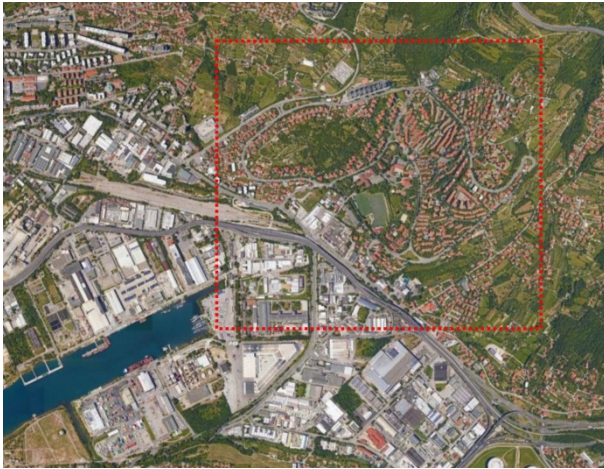


Fig. 8 Borgo San Sergio, Trieste. Aerial view.

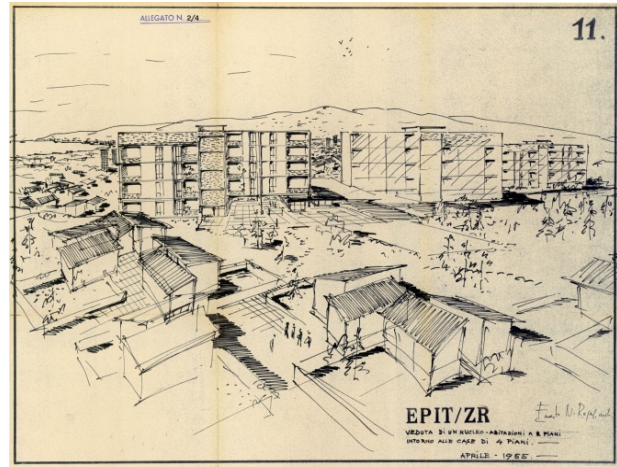


Fig. 9 Borgo San Sergio, Trieste. A neighborhood unit, Ernesto Nathan Rogers, 1955.

## 5. In the Modern Suburbs of Trieste: Interdisciplinary Surveys Towards a Visual Plan

Learning is an integral part of having an experience. It is an effect of exposing oneself to a variety of stimuli, being amazed, and cultivating the willingness to continue to look at and think about things. City spaces are the theater where contemporary society finds expression and representation [39]. In these spaces, the city educates us not only to observe, but also to become more committed citizens.

To propose an experience of urban space based on the interaction with inhabitants and different disciplinary approaches: this was the intent that guided a group of professors from the University of Trieste in the organization of a short training module where young high school students joined architecture students [40]<sup>9</sup>.

<sup>9</sup> The module “Urban Experiences. How to Explore and Design Public Spaces in the Suburbs of the Contemporary City” was organized in the frame of a program of State initiatives aimed to school-university integration, by Elena Marchigiani and Sara Basso, with Paola Di Biagi (School of Architecture of the University of Trieste). Activities saw the participation of Claudia Giacomazzi (Public Institute of Higher Education in Trieste), Roberta Altin (anthropologist), Gianna Omenetto (photographer), and Elisa Vladilo (artist).

### 5.1 Deconstructing Contradictory Images of Public Space

The focus was on the description and design of public open spaces. Our intent was not to deal with such a complex subject as a given issue, but rather as an open question, “a doubt” [41], to be approached through technical survey, observing people’s daily actions, listening to their voices and impressions. The “openness” of public space is not simply due to its being not built, its form, or the lack of physical barriers. As Lynch reminds us, it also depends on being “open to the freely chosen and spontaneous activity, movement, or visual exploration of a significant number of city people” [42, p. 396]. It is precisely because of the plurality of its scales and dimensions (physical configurations, relationships between near and distant areas, ways and times of use, users), that public open space still offers fundamental clues to understand the living conditions of contemporary cities.

Our field of exploration was Borgo San Sergio, a council housing neighborhood built in Trieste since the 1950s (Fig. 8). Here social houses, along with the generous presence of collective spaces and facilities – parks and gardens, squares, schools, churches, social and health care – contributed to the construction of a

large sector of the “public city” [43], where the biographies of many people have stratified. Borgo San Sergio, specifically, is the expression of the neighborhood-unit idea, and of an urban growth model based on satellite settlements outside the city center<sup>10</sup> (Fig. 9). Spreading over 65 hectares, the suburb was intended to accommodate 8 to 10 thousand inhabitants. It is organized around a large community space (the ‘heart’), where the main facilities are gathered in a park. Around the park, there are different units of buildings, each with shops, daily use services, green spaces, and private gardens. Perimeter roads, from which smaller roads and pedestrian paths branch, ensure accessibility to residential areas.

Today in Borgo San Sergio – as in many other social housing districts – the amount of available facilities is inversely proportional to their quality. Moreover, spatial decay is associated with the concentration of economically and socially disadvantaged people. These conditions have

contributed to the production of contrasting images. Inhabitants suffer from the difficulties of everyday living accentuated by a poor physical space, but are also aware of its potential qualities; those who live elsewhere often look at the district from the outside and see it as an edge area, making rushed and stigmatizing judgments.

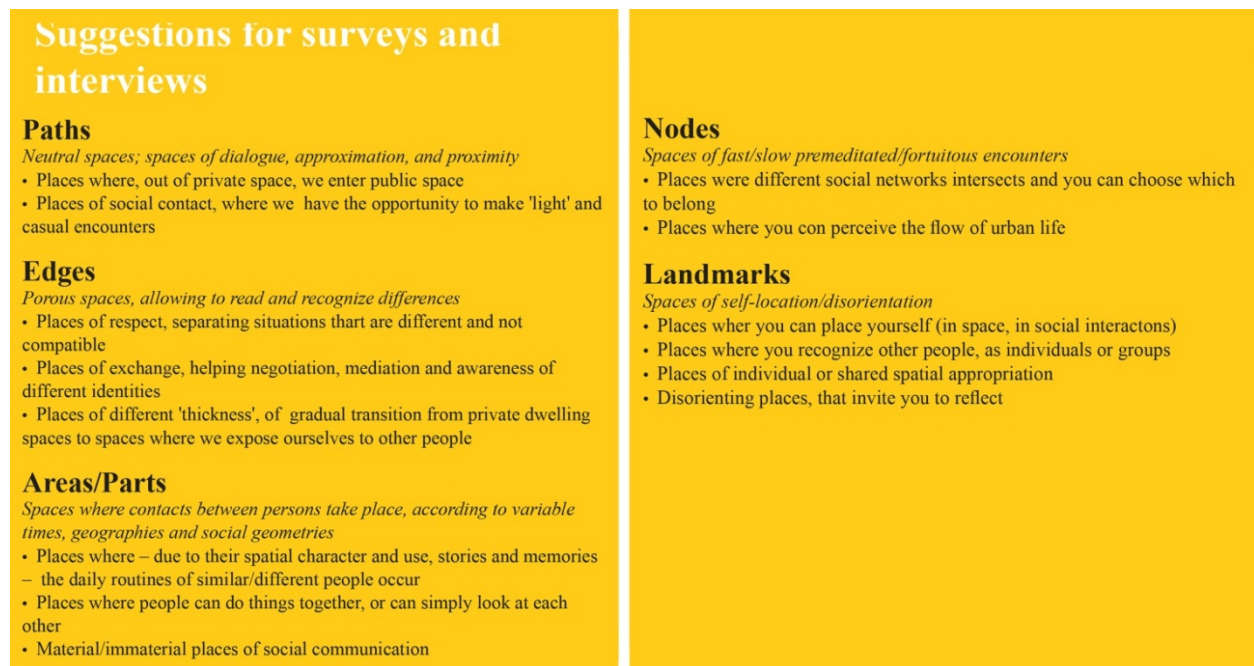
To better understand and try to reverse these contradictory pictures, students were asked to question how to intercept and synthesize the plurality of perceptual information that the suburb feeds, and how to prefigure its transformations in order to stimulate new and positive images. Specifically, in approaching the redesign of Borgo San Sergio's open spaces, the suggestion was to abandon the reference to traditional historic squares. The purpose was instead to understand how the more recent parts of the city frequently offer a larger repertoire of open spaces, where different ways of living, forms and use of public areas, relationships with private space occur (Fig. 10).



**Fig. 10** Borgo San Sergio, Trieste. Public spaces: (1) Pedestrian pathway; (2) Parking lot; (3). Kitchen gardens along the perimeter of a plot; (4) Traces of inhabitants' manipulation.

<sup>10</sup> In 1955, the architect Ernesto Nathan Rogers (member of the office BBPR and of the Congrès Internationaux d'Architecture Moderne – CIAM) developed the project, with the collaboration of the engineer Aldo Badalotti (Municipality of Trieste). With the public funding and the support of the Ministry of Public Works, the construction prolonged from 1957 until the 1980s.





**Fig. 11 The ethnographer's point of view: rereading Lynch's five elements as opportunities to develop psychological satisfaction and social interaction.**

### 5.2 The Visual Code at the Test of Three Points of View

The ways to look at and redesign open spaces were oriented by a few rules, inspired by Lynch's theories: explore the places by walking in, involving one's senses, listening to inhabitants; adopt different points of view, in order to consider the psychological effects of the neighborhood both from the inside and the outside. The task was to recognize collective spaces in relation to the opportunities that they offer to develop a variety of actions: freely choose what to do and with whom; social contact; manipulation and adaptation of the spatial support; exposure to sensuous stimuli; opening the sight to the landscape. Our reference tools were again the five elements proposed in *The Image of the City*. By practicing three complementary ways of observing, these elements were used to translate the results of the students' surveys into new representations of Borgo San Sergio.

The first approach was that of the ethnographer. Its aim was to discover the narratives of spaces and the hidden memories layered there over time. Surveys and interviews, made to inhabitants by using as a stimulus Lynch's lexicon and the photos taken by the students,

allowed to capture how people consider collective spaces, as well as what makes their daily frequentation easy or difficult (Figs. 11 and 12). The first result was a "voices map" (Fig. 13). It helped read spatial focuses emerging from the apparently disordered structure of the neighborhood. The map allowed us to localize and compare the words that the students and the people interviewed had used to describe places, expressing the social and cultural values of Lynch's minimal vocabulary. The voices map, therefore, was both a synthesis of information and a device to keep on thinking.



**Fig. 12 Borgo San Sergio, Trieste. The photographic survey and the interviews to inhabitants.**





**Fig. 13** Borgo San Sergio, Trieste, Italy. The voices map: paths (orange); edges (dark blue); nodes (yellow); landmarks (red); areas/parts (light blue).

The second approach was that of the planner. It was useful to bring students closer to the physical character of the places, to the technical analysis of the urban materials that make up the neighborhood (buildings, roads, gardens and kitchen gardens, leftover spaces, etc.), and to the comprehension of their roles and functions (Fig. 14). The planner's view is a potentially wider look: it invites us to explore different areas, on a small and large scale, from the spaces inside the suburb to the close landscapes. Accordingly, the second map was a deliberately schematic perceptual representation that identified a restricted selection of places and their sequences, the overlapping of different characters in the same space (Fig. 15). The map showed, for example, the relationship between specific areas and paths; pointed out how often a pathway is at the same time an edge, or how a node can also be a landmark; it underscored how an area can derive its identity more from its perimeter than from its inner spatial features. Drawing the map went far beyond a simple record of the survey: it gave the opportunity to identify the places where to start transforming Borgo San Sergio into a more livable neighborhood.

The third visual approach was finally that of an intermediate, more explicitly project-oriented glance. The aim was to assess and synthesize the information that had been gathered by walking into the neighborhood and giving voice to inhabitants. What

we proposed to the students was to outline images of a possible future, starting from the interpretation of the needs and desires that find expression in people's everyday practices. We did not expect finished projects; sketching transformations of urban spaces was rather a way to develop further reflection on their weaknesses, strengths, and opportunities. In this last step, the language of public art provided useful suggestions to maintain a coherent attitude to Lynch's approach. Our intention was to focus on context-sensitive interventions that could radically change the perception of spaces by simply adding new colors, lights, small functional elements, and by setting up forgotten or underused spaces to stimulate co-design and co-management with the inhabitants.

The students' design proposals drafted on the photos tried to make the configuration and use of existing spaces as complex as possible. In this work, Lynch's vocabulary clearly showed its capacity to suggest many variants and subjective interpretations (Fig. 16). Through adding perceptual qualities and minimum facilities, currently poor and unrecognizable sites can also become nodes; paths and nodes can be perceived as more articulated environments and landmarks. Specific strategies for roads and pathways proposed stronger links between areas, landmarks and centers of activities; they imagined slow mobility (pedestrian and cycling) and equipment along the paths and their edges, to make them safer and more comfortable places where to sit and meet other people. At the same time, edges and fences were integrated into the design of adjacent areas, to smooth the transition between contiguous landscapes and uses. Proposals referring to the different neighborhood units led to reinterpreting the original polycentric organization of Borgo San Sergio and to transforming the setting of informal appropriation into better-equipped spaces, keeping that flexibility which allows the coexistence of different social practices. A better design of nodes and landmarks finally meant focusing on the conversion of areas dedicated to mobility and parking

## Suggestions to fill in survey records

### Paths

- Recognizable/not recognizable
- Complete/interrupted (from and where they lead to)
- Comfortable (equipped with benches, shelter and light elements, etc.)/not comfortable
- Formal/informal (looking not only at spatial configuration, but also at traces of inhabitants' ways of moving and crossing places)
- Used/not used or underused (from whom – by specific groups of individuals, children, young or elderly people; how – on foot, by bike, car, bus)

### Edges

- Thresholds that build relationships/barriers that isolate
- Continuous/discontinuous
- Crossable/not crossable
- Of which nature (hedges, fences, trees, gradients, etc.)

### Areas/Parts

- Which factors give homogeneity
- Which factors make the difference from other recognized areas
- Chaotic areas, without character
- Continuity/discontinuity of frontages (the materials that frontages are made of: landscape elements, buildings, paths, etc.)
- Uses and stable/temporary equipment (made by whom – by specific groups of individuals, children, young or elderly people; specify the material traces of use/abandonment)

### Nodes

- Recognizable/not recognizable spatial configuration
- Comfortable (equipped with benches, shelter and light elements, etc.)/not comfortable
- Helping to orient oneself/generating confusion
- Lived in and crossed in stable/temporary ways (from whom – by specific groups of individuals, children, young or elderly people; how – on foot, by bike, car, bus)

### Landmarks

- Open/closed views towards landscape
- Visual emergence (specify of which nature)
- Functional/use emergence (specify of which nature and for whom – by specific groups of individuals, children, young or elderly people)



**Fig. 14 The planner's point of view: using Lynch's five elements to recognize problems and potentials.**

into more articulated environments, available to accommodate leisure activities, also thanks to a stronger visual characterization.

In this way, through analytical and design approximations, students somehow reflected on how improving the legibility of Borgo San Sergio. Perhaps it was the first step towards what Lynch would have defined as a “visual plan”.

## 6. Conclusions: Learning and Design Practices to Slow Down Judgment

Didactic experiences revealed significant points of strength of Lynch's cognitive theories, thus contributing to the explanation of their success in our country. However, some criticism can be highlighted, due to the application to Italian urban contexts, which are deeply different from the American ones.

A first point of strength refers to the assumption of a different way of looking at the city, and listening to its voices. Perceptual analysis proposes a learning by doing process, based on a direct experience of urban

space, which allows young students to feel as an active part of it. The lexicon of *The Image of the City* invites to adopt a subjective, but not arbitrary approach to the interpretation of the physical space, and the ways it is used by people. Taking paths, edges, districts, nodes, and landmarks as open thematic fields also stimulates critical thinking. The effort to motivate their use in the description and project favors reflection and dialogue between teachers and students, resulting in a strongly interactive educational experience. Likewise, the versatility of the Lynchian code allows combining different disciplinary approaches. For the urban planners, ethnographers and artists involved in the training module organized in Trieste, Lynch's lexicon was an engine to build complementary ways of investigating the complex relationships between the physical configuration of spaces, behaviors, memories and perceptions. In addition, the use of the visual code helped us try out new forms of dialogue with the inhabitants.



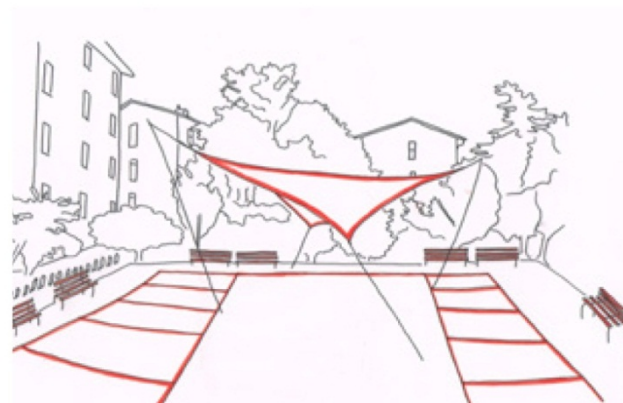
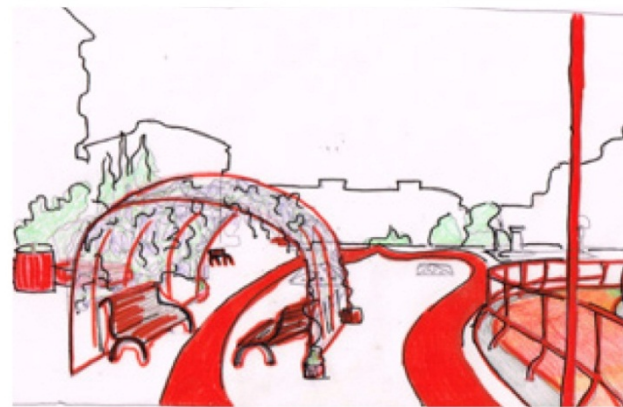
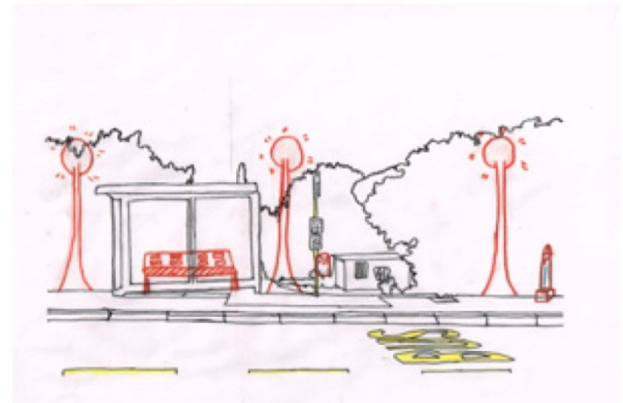
**Fig. 15** Borgo San Sergio, Trieste. Detail of the perceptual map.

The integration of the vocabulary from *The Image of the City* with the dynamic approach from *The View from the Road* points out a further point of strength. That is, the ability of Lynch's language to represent the various environmental images flowing in front of our eyes. Through the understanding of the sequences of the five elements, the students were able to compare highly stratified spatial situations, such as those found in the ancient city of Rome. Similarly, in the more recent suburbs of Trieste, the Lynchian lexicon allowed us to recognize connections between different spaces within an apparently chaotic structure. In building schematic representations of city space, the usefulness of Lynch's code derives from its being not tied to particular objects or dimensions. In fact, the

sense and role of each element can be fully understood only through the process that leads to the construction of a mental map. The visual code helps us understand that, for instance, a path can be at the same time an edge, depending on the subject's interpretation, his or her point of view, and the scale of observation. Or even that an edge – when marking a perimeter and identifying homogeneous areas – can also be the device to reconnect different spaces.

A third point of strength concerns the approach to the project, the way of dealing with the difficult transition from a critical analysis to a design proposal. The project exercises carried out in Rome and Trieste further stressed the role of 'thinking machines' played by the Lynchian categories. Focusing the attention





**Fig. 16** Borgo San Sergio, Trieste, Italy. Design exercises by high school students, from top to bottom: transforming a bus stop into a meeting point (node and landmark); equipping an underused courtyard with new paths, shelter and sports field (area and node); enriching a parking area with new facilities and uses (area, node and landmark).

more on performance strategies than on spatial rules, these conceptual tools helped identify project goals in terms of opportunities to provide spaces for different uses, interactions between people and places, better comfort conditions and psychological satisfaction. In our didactic experiences, discussing together, integrating points of view and perceptions helped us

slow down our judgment, and abandon the use of predefined project models. This emphasizes the need to know in depth and to consider different perspectives before evaluating: attitudes that take on specific importance when working in stigmatized places such as council housing districts, or in areas where the often cumbersome presence of history puts

in the background the instances and practices of contemporaneity.

Not always, however, the use of Lynch's approach proved equally fertile in helping the understanding of a context. In the suburbs of Trieste, Lynch's lesson allowed us to address a complex design theme like that of public space, without stumbling on a deterministic interpretation of the relationships between places and people. The vagueness of physical configuration, the poverty of landmarks, and the presence of informal relations in some ways helped us enhance the more heuristic scope of the Lynchian code. The exercise of spatial denomination through the five elements stimulated the students' creativity, their ability to imagine spaces that are different from those we can find in the most consolidated parts of the city. Some problems, however, emerged in Rome case studies. In the ancient city the meanings and uses of space are multi-layered, consolidated in a long past, and intertwined with the lives of many generations of citizens. Here, the relevance of space configuration highlighted the risk of a simplified analysis, both by the students and by the inhabitants. An example is given by the use of the term 'landmark'. In Rome, the widespread presence of clearly recognizable spatial objects, loaded with monumental values that are easy

to memorize (obelisks, bell-towers, domes, etc.), tends to put in the foreground descriptions of a physical and formal nature (Fig. 17). In this way, more articulated considerations on the presence of daily spaces blur, thus preventing the reconstruction of a geography of everyday perceptions and social practices.

Perhaps, however, what may seem a criticism – within the limited time of a didactic experience – can in fact be interpreted as a confirmation of the true and deeper legacy of Lynch's lesson. A lesson that this author was able to synthesize with great simplicity: "the city is a construction in space, but one of vast scale, a thing perceived only in the course of long spans of time. [...] At every instant, there is more than the eye can see, more than the ear can hear, a setting or a view waiting to be explored. Nothing is experienced by itself, but always in relation to its surroundings, the sequences of events leading up to it, the memory of past experiences. [...] There is no final result, only a succession of phases" [1, pp. 1-2].

The shared image of a city is the outcome of a process, an approximation, and an unstable figure. It is when attempting to develop the skills necessary to decipher this image that we learn to dive in the maze of meanings that connote urban spaces, and to respect their escaping from our codification efforts.



Fig. 17 Rome: 1. Paths, edges and landmarks in the historic city; 2. The domes against the sky.



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