



Client: **Comune di Pescara**  
Architectural design: **Alessandro Luigini**  
Supervision of works: **Alessandro Luigini**  
Safety Coordinator: **Mario Tafuri**  
Site manager: **Gabriele Ferri**  
Coordinator: **Michele Lepore**  
Tender manager: **Enrico Iacomini**  
Contractor: **MD Costruzioni srl, Cocciantè Tullio snc.**  
Budget: **500.000€**  
Construction Site: **8.680 sqm**

*Night view of crossing near the "little square", Ivo Spitilli, modification: cut*

## **Redesign a part of the city. From polluting road to sustainable linear square in three “P”: profile, permeability, photocatalysis.**

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### **ABSTRACT**

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The project presented here is a best practice applied to the routine of public service work. The financial investment necessary to ground makeover asphalt was diverted for a functional and environmental regeneration of an area of almost one hectare. The project, basically, wonders about the many possibilities of urban renewal that can arise from the ordinary activities of public works management, and how targeted action can bring parts of cities to a more appropriate relationship with the environment.

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### **KEYWORDS**

*urban remodelling, linear square, low-budget, urban soil permeability, photocatalysis*

## 1. PROLOGUE

The Italian cities, grown during the economic and construction boom of the 60s and 70s have characteristics that often can not be reconciled with the current attention to the balance between the anthropical and natural environment. And the development policy for awareness of sustainable design even in urban areas is now turning too often on the technophilic idea of smart cities (also interest in the less trendsetters connotations) or on the revitalization of brownfield or disused areas. While best practices in ordinary activities in the public sphere are missing entirely or are numerically marginal for several reasons, including the mechanism of assignment of appointments and contracts, but also a focus biased towards the technical and economic management of the design process, while the strictly quality is often relegated to being subject of propensities - voluntary - of individual designers. Last but not least, the drifting of performance that in buildings centralises the attention of the experts - but also non-experts or stakeholders - when for urban spaces - excluding limited circumstances - is not easy reason in terms of performance quantities.

It is now clear to everyone - at least in commercial terms - it means a building in Class A or Class B, but for a square? For a part of the motorway? Certainly there are qualifying systems and classification of alternative type to the most popular, such as the LEED, but the widespread dissemination of technical protocols of this kind is certainly less efficient than it has for a system similar to what happens for electronic products and household appliances and which takes into consideration all things considered limited aspects of the problem, such as only the amount of energy that a building consumes.

## 2. CONTEXT

Pescara is a city of just over 100,000 inhabitants on the Adriatic coast, more systematically part of the Adriatic megacity that grows almost without disconnection from Gargano to Venice for over 800km, penetrating

in the hinterland only a few kilometers. This immense urban sprawl has formed starting right from the years of the economic boom and the characteristics of the buildings and urban form are divided between poor urban and architectural qualities of the "generic city" and stretch marks that these peripheries have suffered in the process of "overwrite" in the years. Of course there are pieces of historical cities or of early twentieth century with great qualities, but the change activity is developed mainly in generic tissue and it is with this that we must confront.

The redevelopment project of Via Mazzarino in Pescara presents itself as a pilot project in the field of urban regeneration through extraordinary maintenance: it was a simple intervention of repair due to the poor condition of the driveway and pedestrian background, via a forward-looking political vision is it was tacked as redevelopment and urban remodeling with a view to economic and environmental sustainability.

The town area in which insists Via Mazzarino is an area of high density residential, near the Pineta Dannunziana and the Stadio Adriatico (Figure 1) victim of the previously mentioned speculative development: the result is a highly populated area that has poor urban spaces that the "squares" have only the geometry and place names. The three squares closest to the area



Figure 1.

*Analysis of the urban context*

of intervention are, for different reasons, a real and significant shortage of functions that can really be characterized as squares, such as commercial, group and social spaces: Piazza dei Grue, despite a recent renovation project, is inhabited almost exclusively in the day (and part of the year) opening and closing of the school facing, Piazza San Luigi is instead limited between the homonymous church, the surrounding wall of an urban park, a former military barracks, garages of residential buildings and another school, while Piazza Salvo D'Aquisto shows some business activities at the intersection with via Mazzarino and

for the rest residential garages and fences of private houses, inherited from the historic tissue of low houses of the late nineteenth and first half of the twentieth century. In this context it is evident the absence of urban spaces that would provide the basic social functions of the squares, while always at a observation of the state of the places, Via Mazzarino already had a commercial vocation and left several group activities. In addition, the size of the road - 300 meters long and over 25 wide - put the basis for a regenerating design action of good impact.

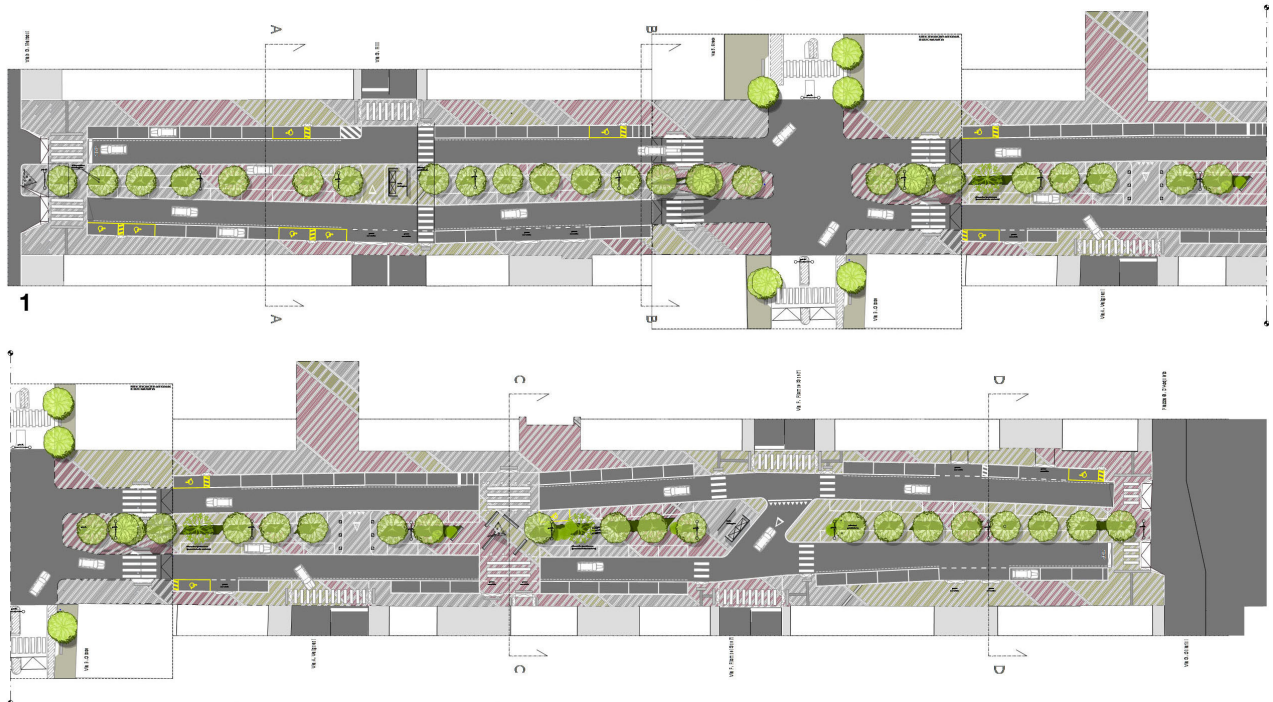
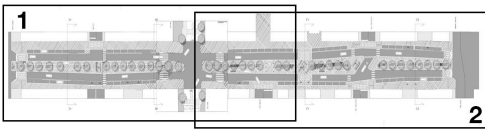


Figure 2.  
General Plan

### 3. PURPOSE

The first proposal for an architectural solution meets the needs of their project starting from the geometry of the road (Figure 2): the pre-existing road section was equipped with two narrow side sidewalks approximately 2 meters the one, of an equally narrow tree-lined central traffic divider, and two carriageways sense single reverse with two online car parks on all roadsides. Lots and lots cars, undersized walkways and expect that we will be not secondary, reduced vegetation to tall stems, literally smothered in flowerbeds that often had dimensions equal to the diameter of the trunk! The section has been remodeled to provide Via Mazzarino of a conformation of a Linear Square: pedestrian areas increased by 2 existing meters to a maximum of 6 meters in some places, reducing the height difference between road and pedestrian areas only 10-15cm, driveways areas reduced in width to the minimum permitted by the standards with speed reduction to 30km / h, cancellation of the height difference with the central pedestrian area.

This new configuration makes the whole area more easily accessible and safe to pedestrians and, occasionally and with interdiction to vehicular traffic, making the area usable as a single large square of over 8.000 sqm surface.

Even the main intersection with the streets perpendicular to the system - those with Via Benedetto Croce - has proposed no more a break of the linear

system, but as a raised flooring system to share the other side pedestrian areas, partly for moderation vehicular traffic, partly to strengthen the effect of the linear square in case of banning traffic all the way .

The road layout has been modified making it slightly zigzagging, in part to reduce the traveling speed, in part to limit the longitudinal perspective and encourage cross paths (Figure 4).

Furthermore, the choice to modify the path has allowed to modulate the depth of the sidewalks also in relation to the index of transformability of the ground floors of adjacent buildings (Figure 3): in this way the commercial activities are supported in their potential also from architectural infrastructure, and already a few weeks after the end of the works it was possible to see coffee and other activities of administration of food or beverage use the new pedestrian areas with tables and chairs (Figure 9).

Also in the longest stretch of the road it was built a rest area, a sort of "little square" in the linear square, with some benches and a sculptural metal tree with a dual function of shading element and qualifying element from the figurative point of view: we believe, in fact, that the presence of currently known elements of "street furniture" with remarkable aesthetic content, can initiate processes of diffusion of the positive criteria which they bear. Tree and benches are made in metal frame, upholstered in perforated metal and integrated with LED lighting (Figure 6, 7, 10, 11, 12).

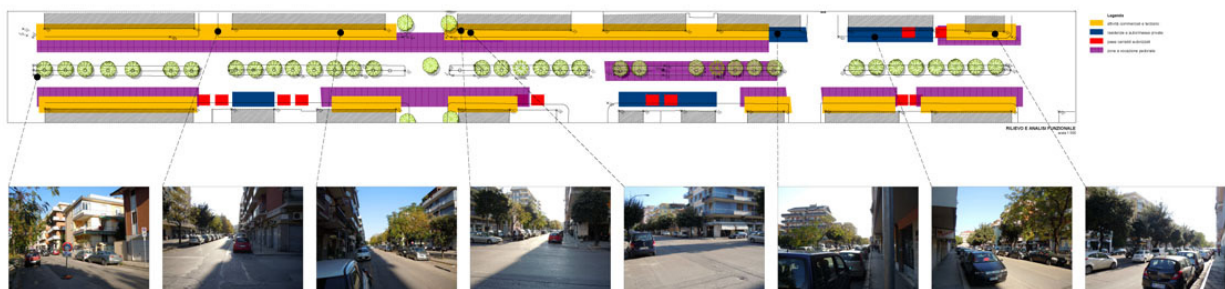


Figure 3.

*Trasformability*



Figure 4.  
*View- Digital model*

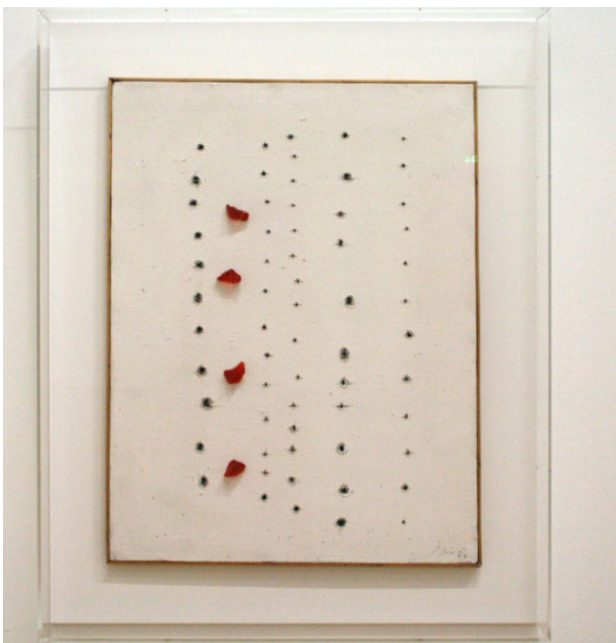


Figure 5.  
*Lucio Fontana,  
"Concetto spaziale"*

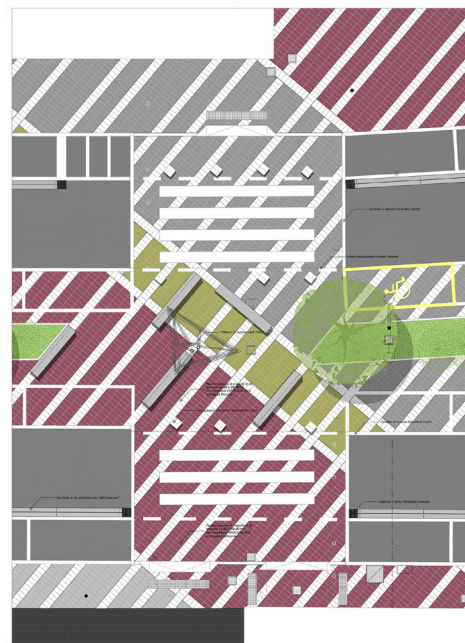
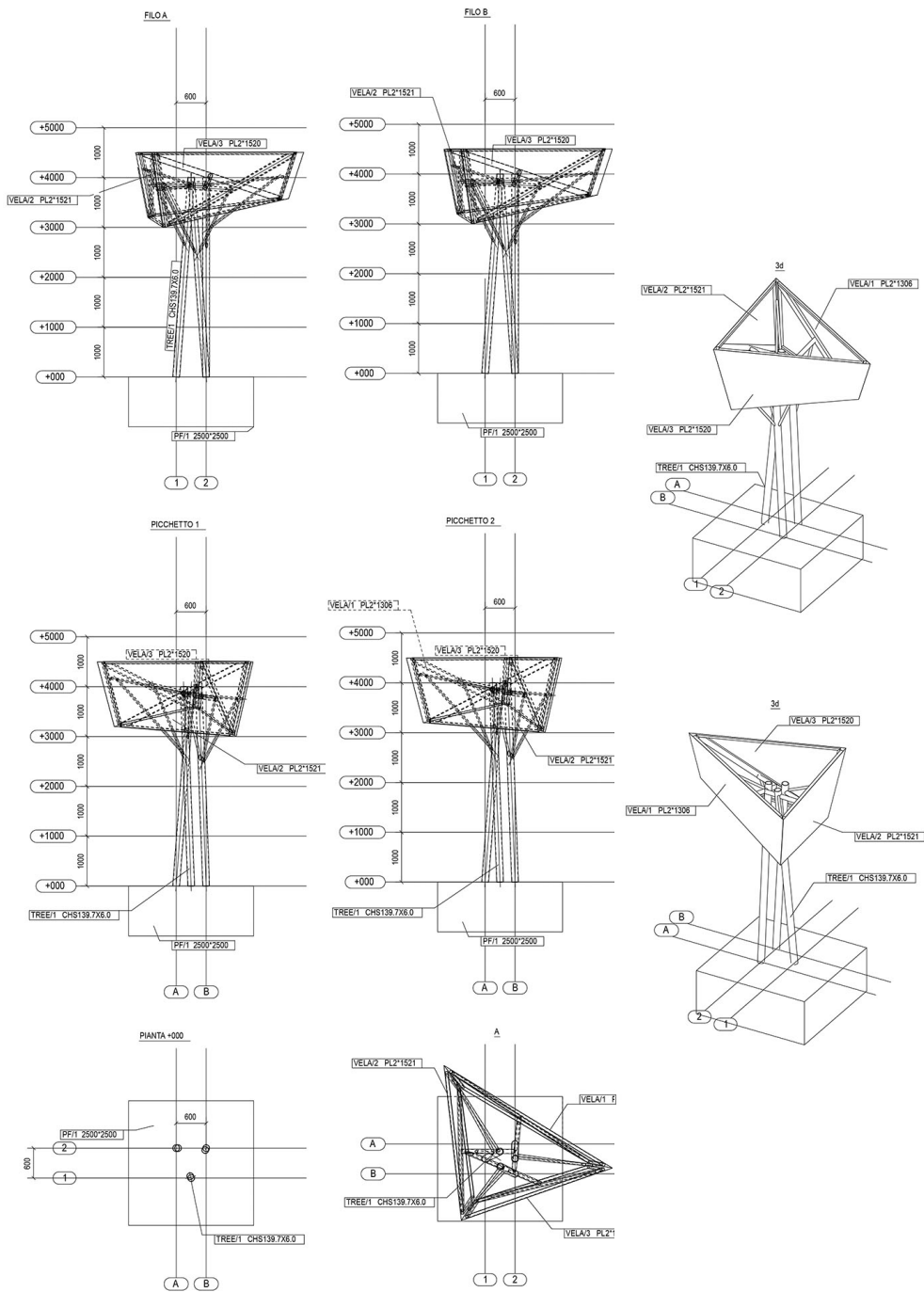


Figure 6.  
*Plan of detail of the  
"little square"*



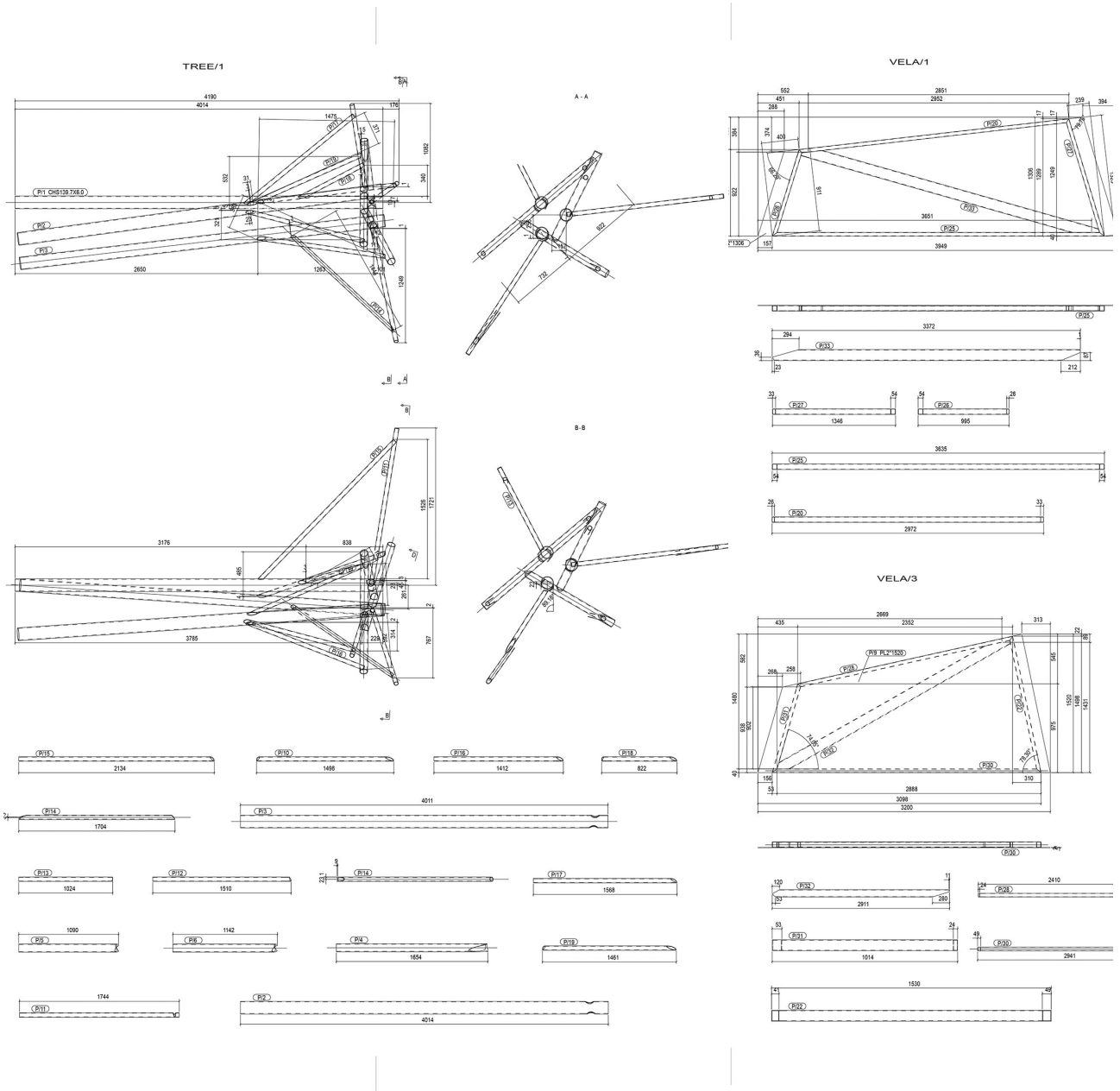


Figure 7.  
Working drawings of metal  
tree



## 4. ENVIRONMENT

A series of architectural solutions have been adopted to allow the project to be seen as a redevelopment project not only architectural and functional but also environmentally. In the first place because the preexisting condition under this point of view is particularly inadequate (over 8000 square meters of surface area, less than 100 square meters of flowerbeds, unique permeable surfaces) but at the same time has great potential (the central reservation has high trees from 6 to 20mt). This large surface area of asphalt, as the two-dimensionality of the canvas by Lucio Fontana, was too rigid, too impermeable to be confirmed, so it was designed a system of flowerbeds around the existing trees, diamond-shaped and resulting from the geometry of the floor tissue, which led to the green surface to over 400 square meters (Figure 5). In addition, all the paving of the central area has been realized in self-locking concrete blocks with a filtering granulometry and dry subfloor, bringing the permeable surface to the share of 1900mq. Since the beginning, it was possible to observe how the frequent flooding of the area in case of rain you are no longer verified, re-establishing a lost relationship for decades between the index of rainfall and the natural ability of the soil to absorb such events entirely natural.

Starting from the need to use these filtering self-locking blocks the paving of the whole square has been realized with the same material, but with different compositions: in the lateral pedestrian zones and road crossings was used a non-filter material and increased resistance. In this way the paved areas (whether or not permeable) despite the functional specialization ensure single figurative configuration that makes the area, and then the project, perceptible as unitary.

Finally all self-locking concrete blocks are treated with titanium dioxide nanoparticles, element capable of activating the photocatalysis processes that, under laboratory conditions, cancel some contaminants (and reduce other) through oxidation processes. In this way, with a quite limited expenditure, the new linear square contributes not only to the quality of the use of the new space but also to air quality (Figure 8).



Figure 8.

*Areal view*



Figure 9.

*Detail of self-locking concrete paving blocks*



Figure 10.

*Night view of the "little square"  
(Ivo Spitilli)*



Figure 11.

*Daytime view of crossing  
near the "little square"  
(Ivo Spitilli)*



Figure 12.

*Night view of crossing near  
the "little square"  
(Ivo Spitilli)*