



## EWT/ Eco Web Town

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## Mezzogiorno. Prove di sostenibilità

a cura di Maria Valeria Mininni, Ester Zazzero

### Programmed Eco-Neighbourhoods. Chieti, Pescara, Teramo

Ester Zazzero

*Programmed eco-neighbourhoods* summarizes the main themes in play in the sustainable city project: the importance of *ecosystems* and the environment regard the objective of sustainability as it is currently understood; the opening to “*geoflows*” of contemporaneity, that innervate the multi-level relations between the several locations, creating territory-networks that extend both materially and immaterially among a multiplicity of intersection and commutation poles the flows that feed the territory-area; finally we focus on the *physical city* as a set of locally stratified spaces, that serve as long-term anchors for cultural and social identities.

The objective is clear: to confer quality conditions for the transformation of Chieti, Pescara and Teramo, using city planning projects inspired by the values of sustainability, with the objective of extending this pilot approach to all the Abruzzi and more in general to the hyper-city that has spread along the Adriatic coast. Now we have to figure out the ways and means through which it can be done, inaugurating a line of research applied to the context of the Abruzzi, but projected so that its results can work in other Italian or Euro-Adriatic cities.

The application to three areas of the Abruzzi, one just behind the Chieti Scalo Railway Station, another near the city airport at Pescara-Fontanelle and the third in Teramo in the area of the abandoned Villeroy Boch factory which is also near the train station, allows us to intercept a variety of themes of the Urban Sustainability Project. All three of these are large brownfield areas currently largely occupied by industrial functions which either have been or are being abandoned, otherwise of large technological services whose fate is uncertain.

Here we find the themes for the sustainable city project often faced in earlier issues of EWT.

#### *The strategy of the project*

The themes were faced first with a strategies of sets that intends to use a multiplicity of *context-integrated actions*, adjusting them to the specificity of the situations of the intervention (from low density residential neighbourhoods closer to the city, to the area of the cement factory, to the area of the sewage treatment plant and to other industrial and handicraft areas that exist along the main urban ring roads).

The objectives are those already set out on previous occasions. Prioritise *reconversion and recycling* of existent cities, redeveloping in particular the physically, functionally and socially degraded spaces or those with limited landscape-environmental value (*go brownfields, not greenfields*). *Lower the environmental impact* on the area, with the general objective of reducing the consumption of non-replaceable resources. *Improve accessibility* by introducing sustainable mobility systems centered on public transport with zero-emissions and on slow routes that reduce the effect of peripheral enclaves. *Transform the city into an active energy platform* producing energy from alternative sources, in particular solar and wind. *Re-naturalizing the context* and leaving it green by setting aside significant amounts of the urban land, which had been built up. *Enhancing the biodiversity values* associated with fluvial environments. *Save on water consumption* by better exploiting available water, both rain water and that from water treatment plants. *Increase the density of soil use* by mixing settlement functions to avoid the mono-functionality of spaces. *Bring out the continuity and quality of the spaces for public use* by valorising symbols of permanence and presences of recognised historic-cultural value. *Utilise construction systems that give high levels of environmental performance*, in particular, aiming to erect “energy positive” buildings. *Strengthen an*

*area's recognisability*, improving and valorising the landscape to regenerate the sense of scale for the whole city." (Clementi, 2010)

Then they were tackled with a network strategy that calls for the organisation and redevelopment at a local level of the several networks that help sustainability: green networks, water networks, internal mobility networks articulated on different levels, energy networks, networks of public spaces incorporating locally available historic-cultural elements.

Keeping the principles of integration and processuality, the proposed strategies are fundamentally incremental in nature, except for the area near Pescara which requires a complex urban planning maneuver, as the project's feasibility is conditioned by the possibility of using adequate compensation and equalization systems of real estate values, that will be arrived at with a transparent agreement between the City and the owners.

This new imposition should lead to the design of the physical forms, not as the outcome of a mere juxtaposition of sectorial actions, but as the expression of an innovative conception of the spatial aspects and of the types of building that best achieve the objectives of a greener, smarter and better city. In particular "Programmed Eco-Neighbourhoods" keeps in mind that an eco-neighbourhood must first of all be an environment where it is pleasant to live. That it is a place with a strong sense of identity, a strong image that invites everyone to live there and get to know it. A happening in the city that mobilizes the best technical and managerial competences in creating it and wants to contribute to enhancing the people's, institutions' and companies' capacity to implement strategies of sustainable development. So it must influence the mentality and styles of life, producing effects also on the real estate market and on the dynamics of the construction sector, in particular encouraging owners and investment managers to redevelop the existing, or create new urban spaces (Dreif, 2008).

In the light of this imposition, the "Programmed Eco-Neighbourhoods" project defines itself in function of the above-stated principles. That is considering eco-neighbourhoods not as self-centered islands, but as a part the city rich in urban values, open to relations with what surrounds them and to which they contribute to valorising. A neighbourhood characterised by a mix of uses and social classes, rich in green and public spaces, crossed by public transport routes and by slow routes with limited and unobtrusive vehicular traffic. It is a place as immune as possible to the nuisance of risks, like acoustic pollution, environmental risks, personal safety from criminality, sober in its consumption of energy and in its use of local natural resources (land, water, air and material) both in the phase of its construction and in that of its management while functioning. In other words an attractive neighbourhood that offers a high quality of life, aiming not only at the higher income classes, but also at the young, elderly and a generalized cross-section of the population. Within this philosophy of intervention, the Programmed Eco-Neighbourhood project in particular addresses the experimenting of new types of residence, collective and public services which are representative of new collective behaviours inspired by sustainability principles. This choice of materials and structures is also part of this process as is the organisation of the building site and supplying it with material causing the lowest possible amounts of pollution.

Moving from the above described objectives, the main phases of the Eco-Neighbourhoods of the Abruzzi Programme were articulated in three fundamental steps:

- Identification of a reference model for the project of a new settlement-type with a high level of environmental sustainability;
- Experimentation of the model, applying it to significant contexts in the Abruzzi cities like the study cases chosen (Pescara, Chieti, Teramo);
- Possible extension of the model to other urban contexts in the Abruzzi and to cities around the Adriatic.

To identify the model we looked at the project criteria derived from the most significant experiences both within Italy and outside, with particular reference to scale of the neighbourhoods and their articulation into residential units whose size is contained within limits. In some cases, the proposals put forward caused a reworking of the development plans of the current Zoning Regulations, in the perspective of a significant environmental and settlement valorisation of parts of the city that are today strongly degraded. The target of Programmed Eco-Neighbourhoods is ambitious: to demonstrate that exactly these degraded areas, on the edge of urbanized territory, near a river or a train station and bordered by various large infrastructure works, can become symbols of sustainable development, capable of transforming the city's "dirty" backyard into a "clean" space which is highly central and environmentally sustainable.

### *The cases of Chieti, Pescara, Teramo*

For the experiment, in agreement with the Region and the provincial capitals in the Abruzzi (excluding L'Aquila, still too disturbed by the earthquake), the following contexts were identified for the intervention:

- **Houses under trees in Chieti**, proposes the urban redevelopment of two areas in the industrial zone of Chieti Scalo, which have been abandoned or are being abandoned.
- **Houses and fields in Pescara**, proposing a new highly sustainable and landscaped residential neighbourhood in a peripheral outskirts of Pescara (Fontanelle) which today is semirural in character.

- **Houses under the trees in Teramo**, the urban transformation attacks a strategically positioned, but abandoned industrial area, at stake is the reuse of pre-existing structures from the ex-Villeroy-Boch factory and the inclusion of functions of a new centrality.

The three experiences have in common that the methodology of all is urban planning sensitive to sustainability, which represents the supporting philosophy of the Laboratory for the sustainable urban project. The application of the pilot projects to peripheral areas of Chieti Scalo and Teramo near the train station and in Pescara-Fontanelle near the municipal airport, also have in common the fact that they concern extensive brownfields, currently occupied mostly by industrial plants which are abandoned or being abandoned, or by large city-sized technological services which are under discussion.

### *Conclusions*

The proposals of Programmed Eco-Neighbourhoods aim to define models of intervention though accepting some fundamental limits, due to the composition of the knowledge mobilized in the research, mostly referred to the architectonic and urban planning areas, they have not been extended to other flows to recycle resources (such as solid waste or food chains), which also have an important role in making development sustainable. So intervention proposals emerge that only in part testify to the complexity of the new methods of planning cities; which move from the affirmation of values to sustainability.

Through this new version of environmental and landscape quality, which should permeate the whole territory and above all the cities, important new perspectives for innovation are opening up, that could lead, even in the Abruzzi, to a line of new products connected to sustainability and fed by collaboration among industry and universities. Also the Abruzzi proposes itself as a promoter of the green economy which is gaining increasing popularity and not only among insiders. But the passage to solid experimentation is still uncertain, and the results from research which now also involves the industrial sector risks being frustrated by an insufficiency of determination by the public administrations which are involved.

*(\*) The research was carried out within a specific structure of the SCUT Centre, the Laboratory "Sustainable Urban Project". This Laboratory aims to converge on an operative level the fields of architecture, urban planning, engineering, technology, environmental sciences and economic and social sciences in the common perspective of intervention within the culture of sustainable city as it is practiced in the European area. The Laboratory is characterised in particular for its experimental approach in the field of urban planning and architectonic studies in relation to sustainable cities.*

#### **Responsabile Scientifico**

*Prof. Alberto Clementi*

#### **Coordinamento scientifico**

*Dott. Arch. Ester Zazzero*

#### **Consulenti architettura:**

*Prof. Arch. Lorenzo Pignatti con Giustino Vallese*

*Prof. Arch. Carlo Pozzi*

*Prof. Arch. Filippo Raimondo*

#### **Responsabile Progetto:**

*Arch. Ester Zazzero*

#### **Consulenti energia:**

*Arch. Vincenzo La Rosa*

*Arch. Fabrizio Chella*

*Arch. Agnese Damiani*

#### **Collaboratori:**

*Arch. Claudia Di Girolamo*

*Arch. Cesare Corfone*

*Arch. Gioia Di Marzio*

*Arch. Mattia Faraone*

*Arch. Carla Galeota*

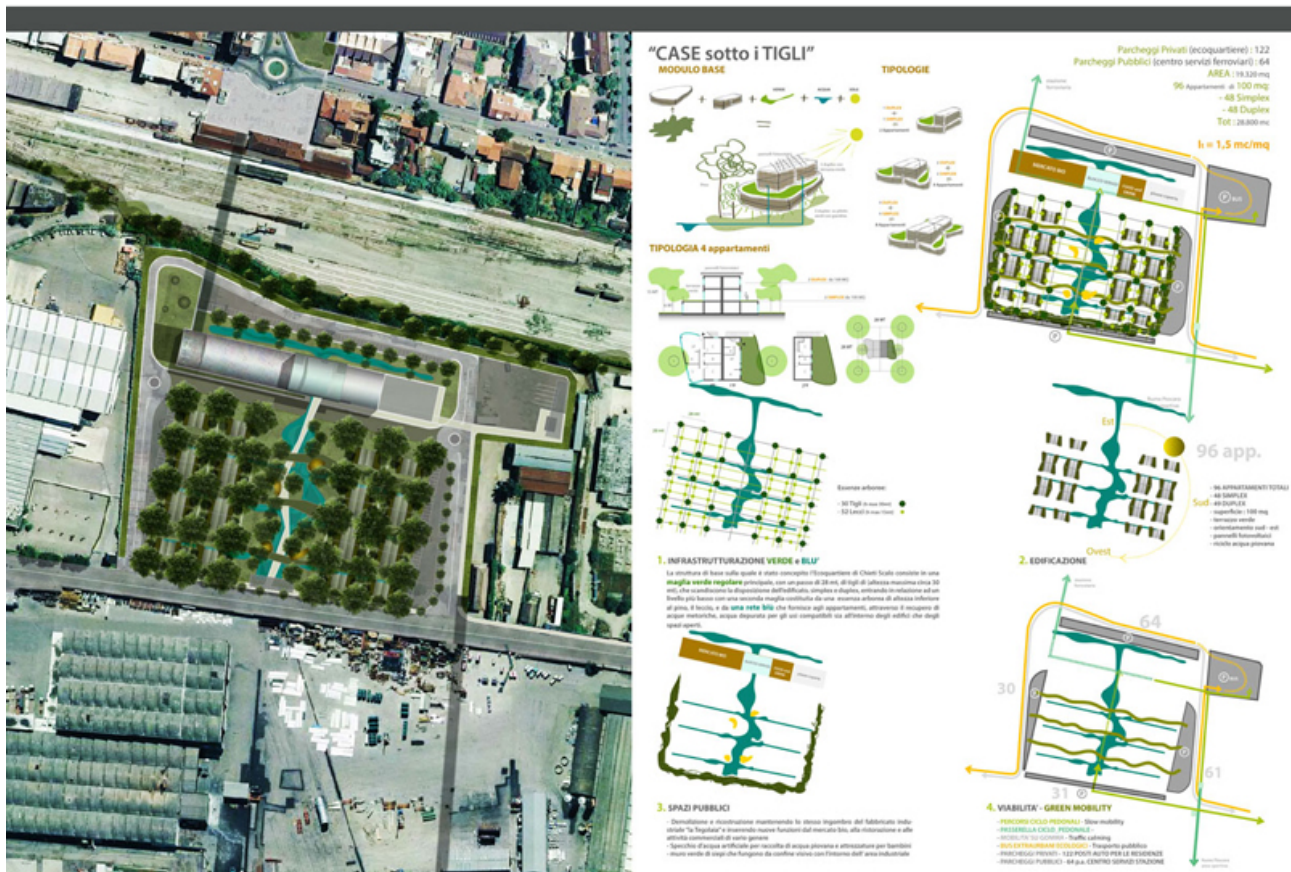
*Emanuela Brai*



1 - Chieti – ortofoto.



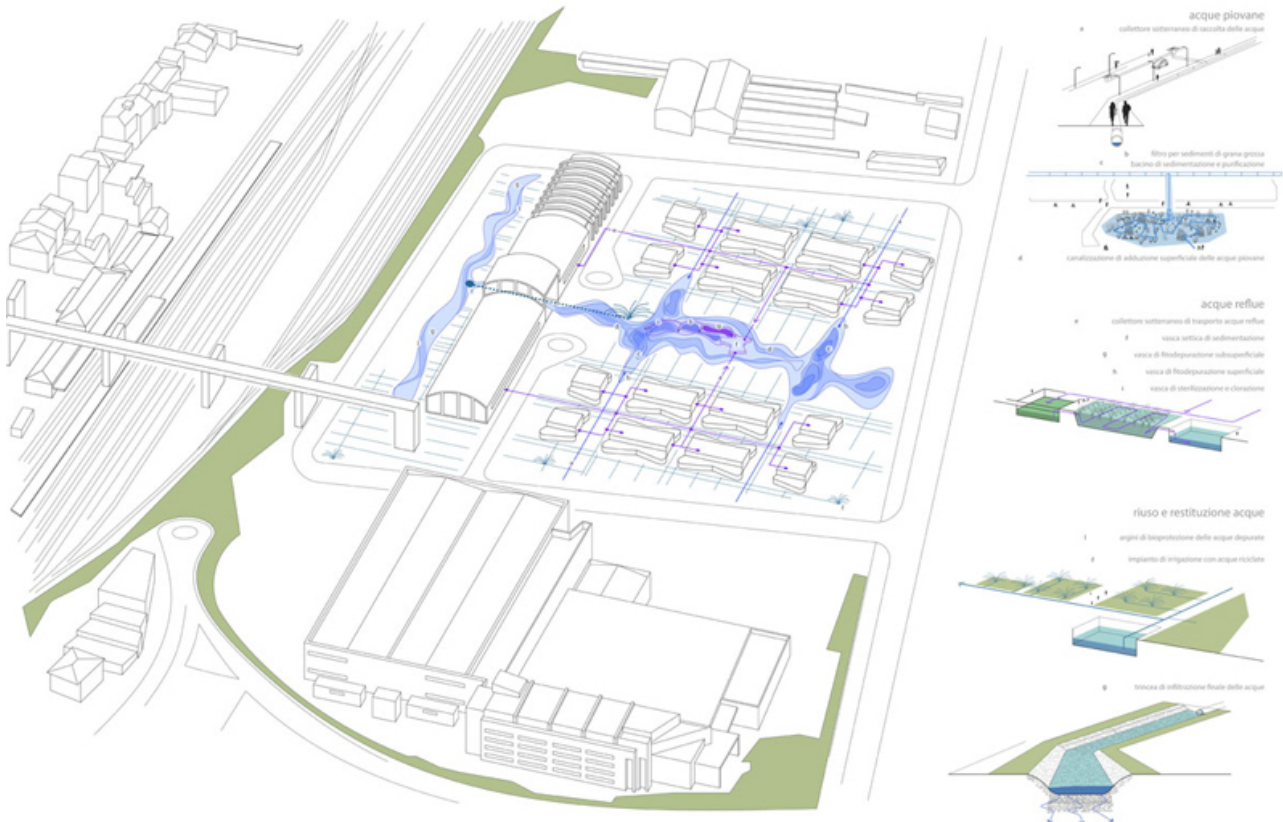
2 - Chieti - VISIONE-GUIDA.



3 - Chieti - eq-1 masterplan



4 - Chieti - eq-1 PREFIGURAZIONE



5 - eq-1 Chieti – waterplan



6 - Chieti - eq-2 masterplan



Torri Direzionali

Pensilina Verde

Volumi Commerciali

Galleria Commerciale

7 – Chieti, eq-2 PREFIGURAZIONE



8 - Chieti - eq-2 waterplan



9 - Pescara - stato di fatto (al 2000)



10 - Pescara - visione guida





11 - Pescara - masterplan

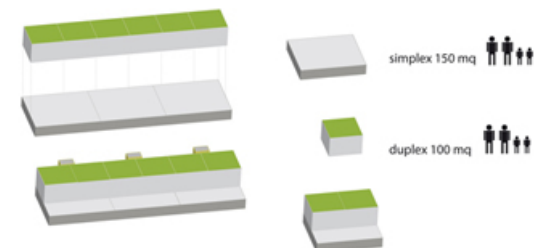


• Area\_fase 2

**PESCARA\_Ecoquartiere Fontanelle**

PARAMETRI URBANISTICI \_

Indice di Utilizzazione territoriale (IUT) _	mq/mq 0,40
Superficie territoriale (ST) _ <small>(escluso sottovodotto e aree collinari)</small>	mq 69.576
Superficie fondiaria (SF) _	mq 38.724
Superfici a Standard <small>(D.M. 2/04/1968, n° 1444 Art. 3)</small>	
Verde attrezzato	mq 12.976
Parcheggi pubblici	mq 4.690
Servizi di interesse comune	mq 3.418
Istruzione	mq 0
<b>TOTALE (di cessione)</b>	<b>mq 21.084</b>
Viabilità _	mq 9.768
Abitanti da insediare _	ab 1.171
Altezza massima _	mt 15



N°6 appartamenti duplex 100mq  x 6  
 N°3 appartamenti simplex 75-90-120mq  x 3

Insiediamento complessivo stima massima 450 persone

• Area\_fase 1

**PESCARA\_Ecoquartiere Fontanelle**

PARAMETRI URBANISTICI \_

Indice di Utilizzazione territoriale (IUT) _	mq/mq 0,40
Superficie territoriale (ST) _ <small>(escluso sottovodotto e aree collinari)</small>	mq 83.809
Superficie fondiaria (SF) _	mq 48.995
Superfici a Standard <small>(D.M. 2/04/1968, n° 1444 Art. 3)</small>	
Verde attrezzato	mq 4.036
Parcheggi pubblici	mq 2.288
Servizi di interesse comune	mq 5.280
Istruzione	mq 3.511
<b>TOTALE (di cessione)</b>	<b>mq 15.115</b>
Viabilità _	mq 19.699
Abitanti da insediare _	ab 840
Altezza massima _	mt 15



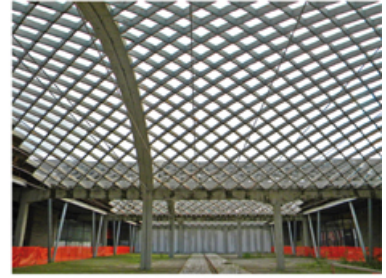
12 - Pescara - tipologie e quantità



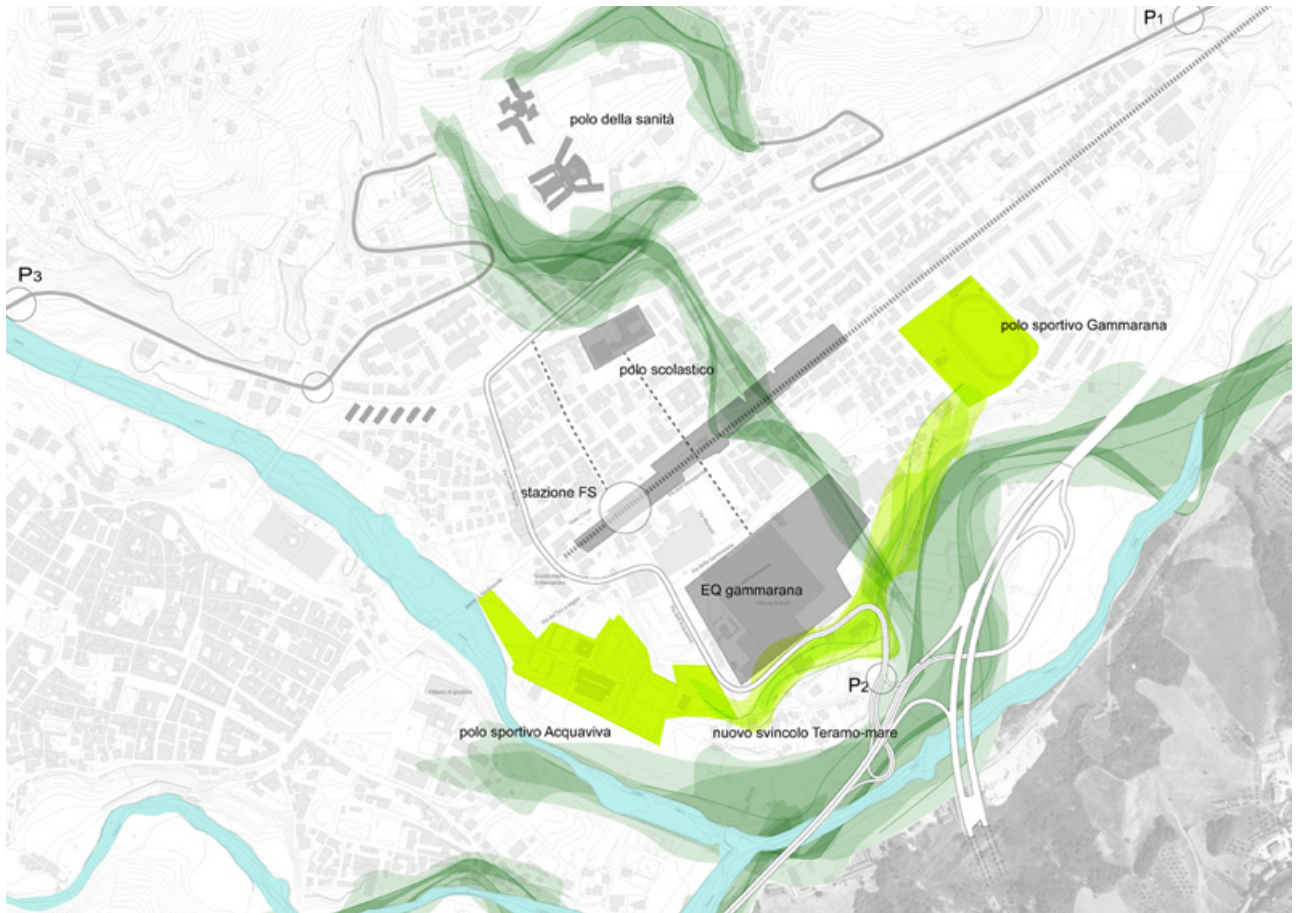
13 - Pescara - prefigurazioni



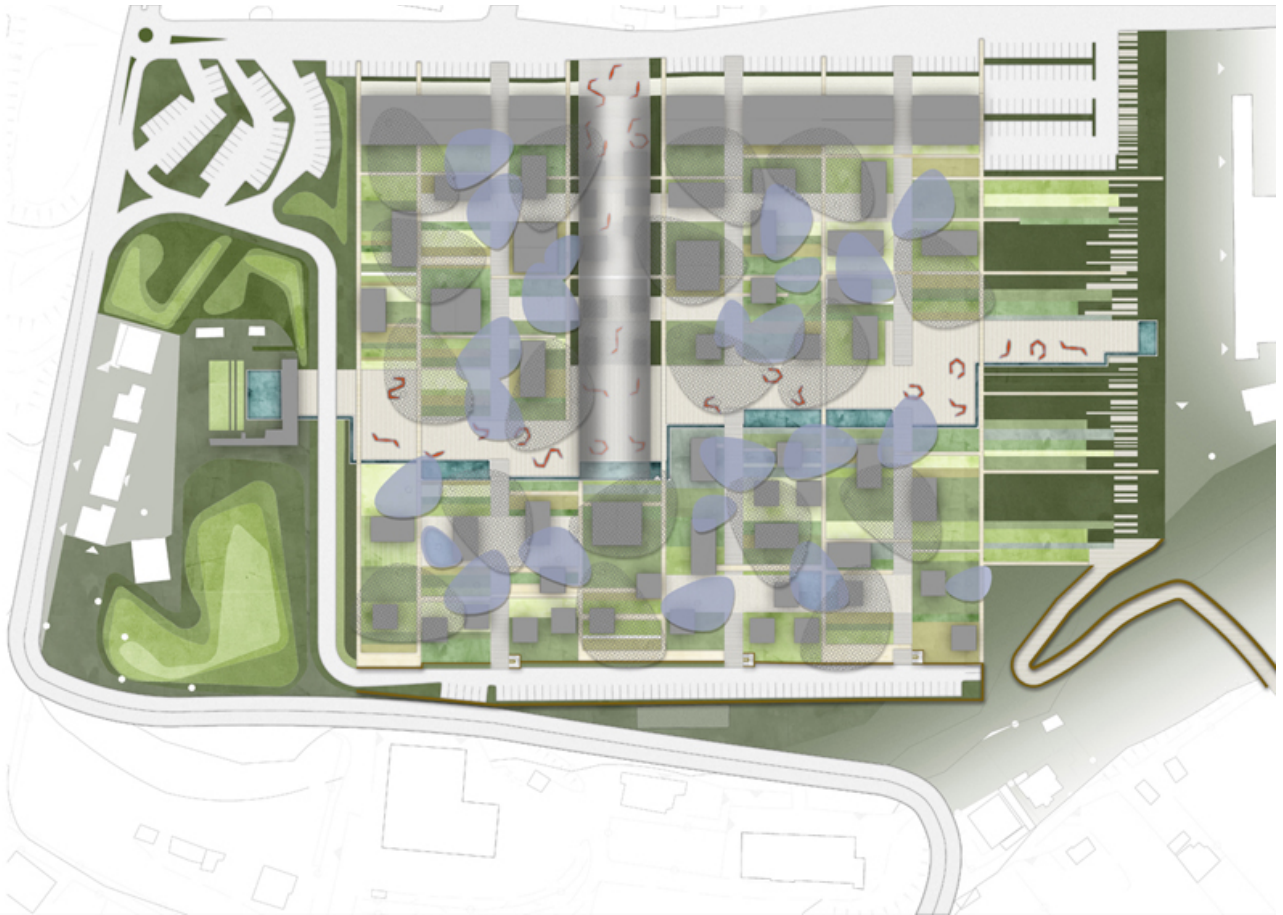
14 - Teramo - STATO DI FATTO



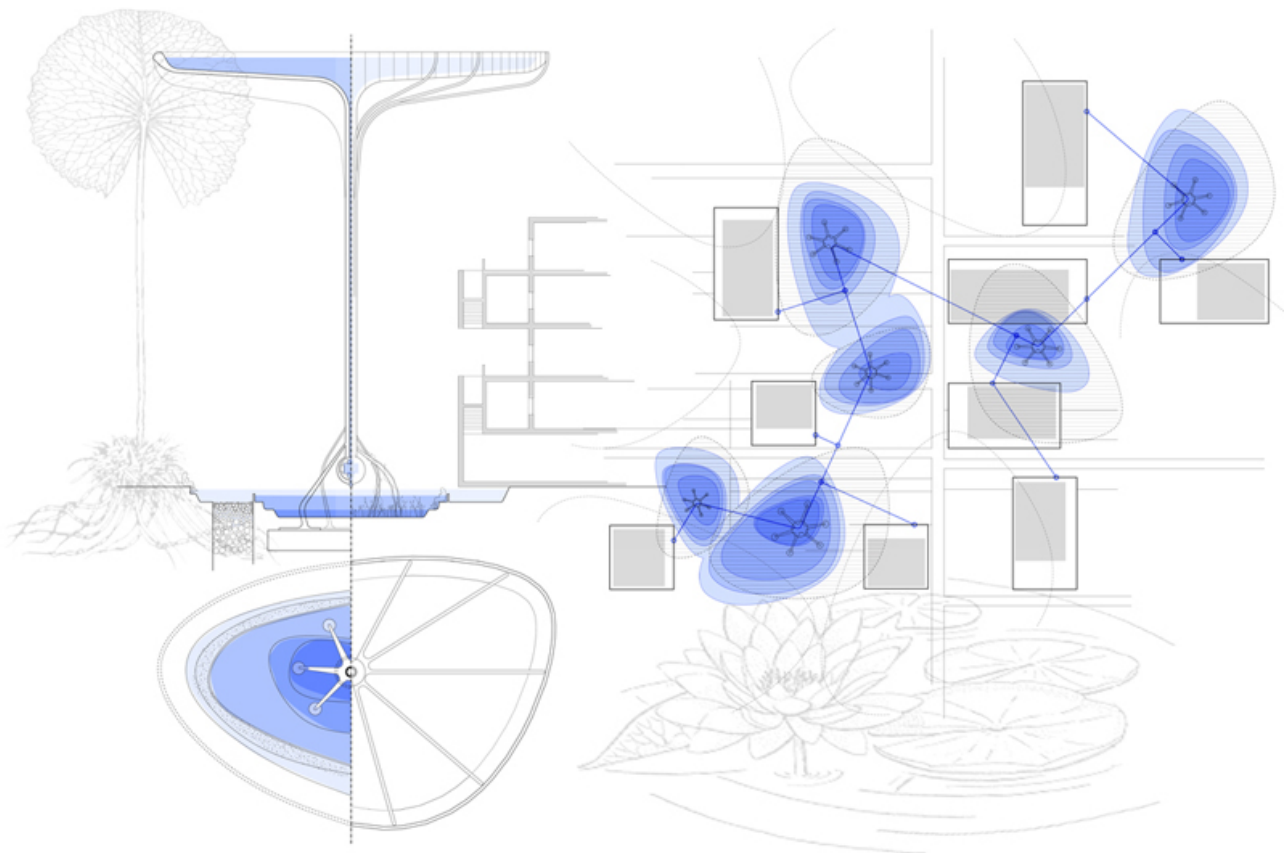
15 - Teramo - RILIEVO FOTOGRAFICO



16 - Teramo - VISIONE GUIDA



17 - Teramo - MASTERPLAN



18 - Teramo - WATERPLAN



19 - Teramo - FOTOMONTAGGIO 1



20 - Teramo - FOTOMONTAGGIO 2

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