

## Pompeii - World Heritage Site: the buffer zone, urban structures and spaces of collective interest

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In 1997 UNESCO declared Pompeii World Heritage Site "considering that the impressive remains of the town, buried by the eruption of Vesuvius in AD 79, provide a complete e vivid picture of society and daily life at a specific moment in the past that is without parallel anywhere in the world". The archaeological site of Pompeii is a very fragile site, its integrity is threatened constantly by natural and anthropogenic risks, as demonstrated by the state of conservation of many of its monuments. The biggest challenge in the new millennium is not only to protect and enhance the archaeological site of Pompeii, but also improve the overall enjoyment. This means making the World-Heritage as a heritage of the city of Pompeii and its inhabitants. The protection of the site from the processes of urbanization of the area, the preservation and enhancement of its relationship with the landscape will be possible through the creation of a complex "buffer zone" capable of preserving the archaeological site and its historical and cultural value, and at the same time able to serve as a ecological connecting element of the environment system and as an urban public space with services and functions for its citizens and visitors.

**Keywords:** pompeii, world heritage site, buffer zones, urban public space

### 1. Pompeii: ancient city and modern town. Territorial analysis and development opportunities





In 1997 UNESCO declared Pompeii World Heritage Site "considering that the impressive remains of the town, buried by the eruption of Vesuvius in AD 79, provide a complete e vivid picture of society and daily life at a specific moment in the past that is without parallel anywhere in the world".

The archaeological site of Pompeii is a very fragile site, its integrity is constantly threatened by natural and anthropogenic risks, as demonstrated by the state of conservation of many of its monuments. The large surface exposed area, tourist pressure, the inadequate supervision and the inherent structural weakness of the site exacerbate the harmful effects of the risks from natural sources such as volcanic risk, seismic risk, hydro-geological and meteorological risk. During the last five years, in the archaeological area, there have been numerous collapses because of water infiltration caused by bad weather combined with poor maintenance of structures. In 2010, along *Abundance Way*, the *Schola Armaturarum* is totally collapsed upsetting the international community and forcing the European Union to fund a massive project for the conservation and management of archeological site. After the famous school of gladiators many other monuments have been damaged, although less severely, like *Villa of Loreio Tiburtino*, *Villa of the Mysteries*, *House of Venus in the Shell*, *House of the Moralist*, *House of the Small Fountain*, *Tomb of Lucius Publicius Syneros* and *the Temple of Venus*. It is, therefore, of fundamental importance that are started restoration projects aimed at halting the degradation of buildings, both in terms of architectural and decorative, combined with mitigation of landslide risk through new systems for water drainage.

However the biggest challenge in the new millennium is not only to protect and enhance the archaeological site of Pompeii, but also improve the overall enjoyment. This means making the World-Heritage as a heritage of the city of Pompeii and its inhabitants.



Fig. 1: Archaeological site of Pompeii: damages from 2010 to 2014

-  World Heritage Site
  -  Buffer zone Unesco
  -  Entrances
  -  Damaged monuments
- ① Schola Armaturarum - 6/11/2010
  - ② House of the Moralist - 30/11/2010
  - ③ Villa of Loreio Tiburtino - 21/12/2011
  - ④ House of Venus in the Shell - 27/2/2012
  - ⑤ Villa of the Mysteries - 8/9/2012
  - ⑥ House of the Small Fountain - 2/12/2013
  - ⑦ Temple of Venus - 3/3/2014
  - ⑧ Tomb of Lucius Publicius Syneros - 3/3/2014

The territory of the Municipality of Pompeii, unique in the world for its cultural, archeological, architectural, naturalistic and landscape richness, was strongly affected by phenomena of conurbation associated with illegal housing and high population density. This settlement density and the land consumption associated has saturated the area actually blocking the socio-economic development. The area seems a chaotic mosaic in which different "town" (industrial and agricultural areas, residential areas, areas of high historical and environmental value) coexist without an apparent urban planning rule. It therefore seems necessary to control the development of the areas around the archaeological site, in order to protect the cultural heritage of Pompeii, but it is also essential to maintain the visual relationship between the ancient city and the Vesuvius. We need to enhance the environment and the landscape that characterized the ancient Pompeii to protect the cultural values of the territorial system of modern Pompeii.

The protection of the site from the processes of urbanization of the area, the preservation and enhancement of its relationship with the landscape will be possible through the creation of a complex "buffer zone" capable of preserving the archaeological site and its historical and cultural value, and at the same time able to serve as a ecological connecting element of the environment system and as an urban public space with services and functions for its citizens and visitors. Urban structures and spaces of collective interest, that will develop along the new buffer zone, must meet appropriate performance characteristics and be equally accessible to all citizens and users of the city, so that the needs of individuals are fulfilled and the primary objective of safeguarding World Heritage Site for transmission to future generations is achieved.

The involvement of local communities in decision-making will be fundamental for the protection, conservation, enhancement and sustainable development of the territory. Through the active participation of citizenship is possible to improve the sense of belonging of the local population in the cultural values of the area and eliminate the condition of "marginalization and isolation" of the archaeological site from the urban center.

The realization of a new buffer zones will also allow a better fruition of the site for the visitors. The interventions in the outside area the archaeological site will concern primarily the redevelopment of the entrances, which will represent the "City Gates" on the site, and the creation of a system of paths that can effectively accommodate the flow of tourists. The equipments, which will be hosted by the new buffer zone, will have to be achieved with lightweight structures, removable and environmentally friendly in such a way that they can be replaced in the future for a change of use of the area. These structures should not only be at the service of tourists (picnic areas, rest areas, bookshop, info-point and so on), there also will be public spaces that contribute to promote social networks between citizens of Pompeii and strengthen their relationship with the archaeological site.

To make stronger the link between the archaeological heritage and the city it's also necessary to create a "visual contact" with each other. Through the paths that will develop along the buffer zone, tourists and citizens can see the ruins of Pompeii, so symbolically the new town embraces the ancient city recognizing it as part of itself.

Now unfortunately many visual barriers surround the archaeological site, contributing, together with the urban problematic situations described previously, to its isolation from the urban context.



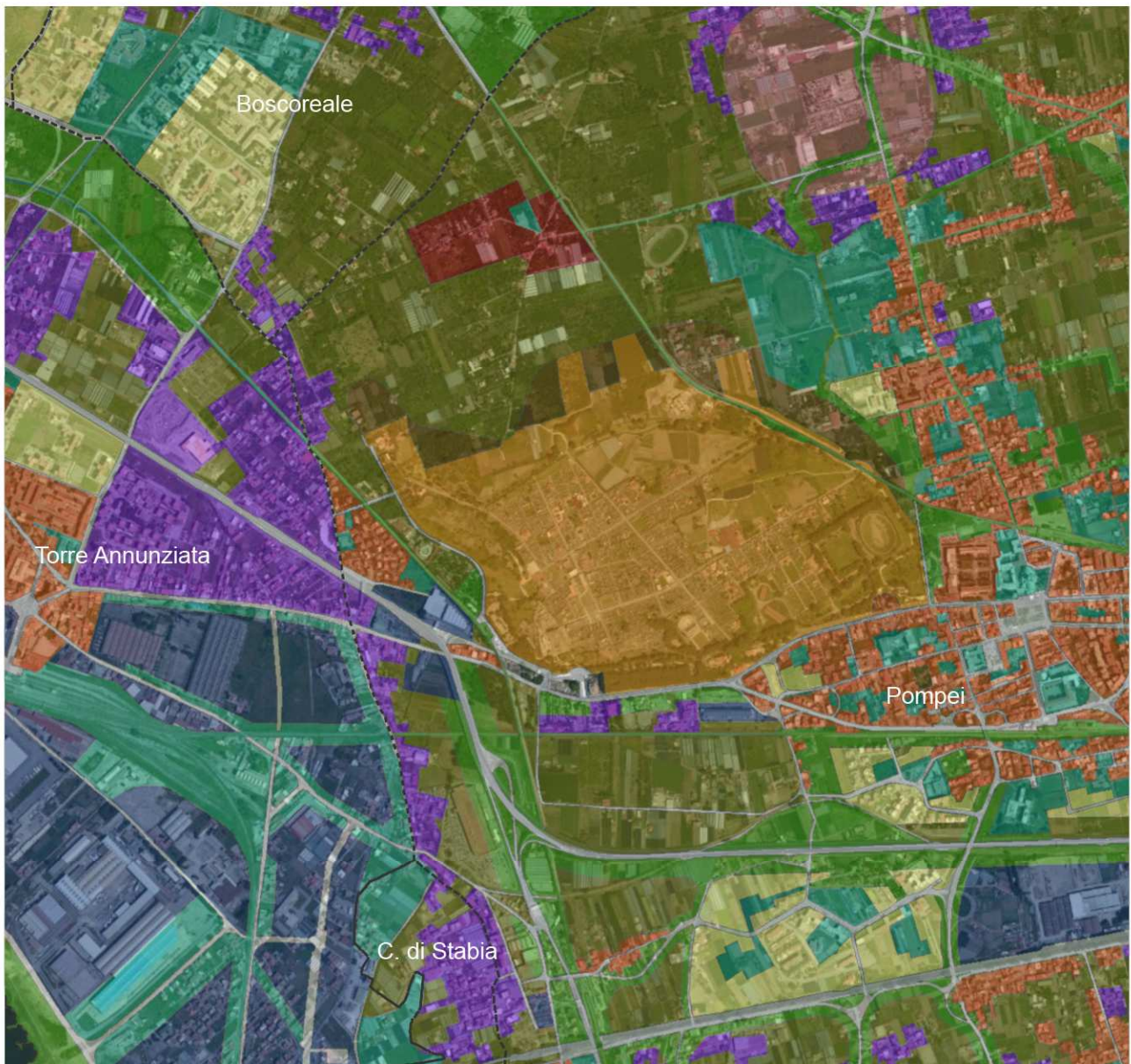
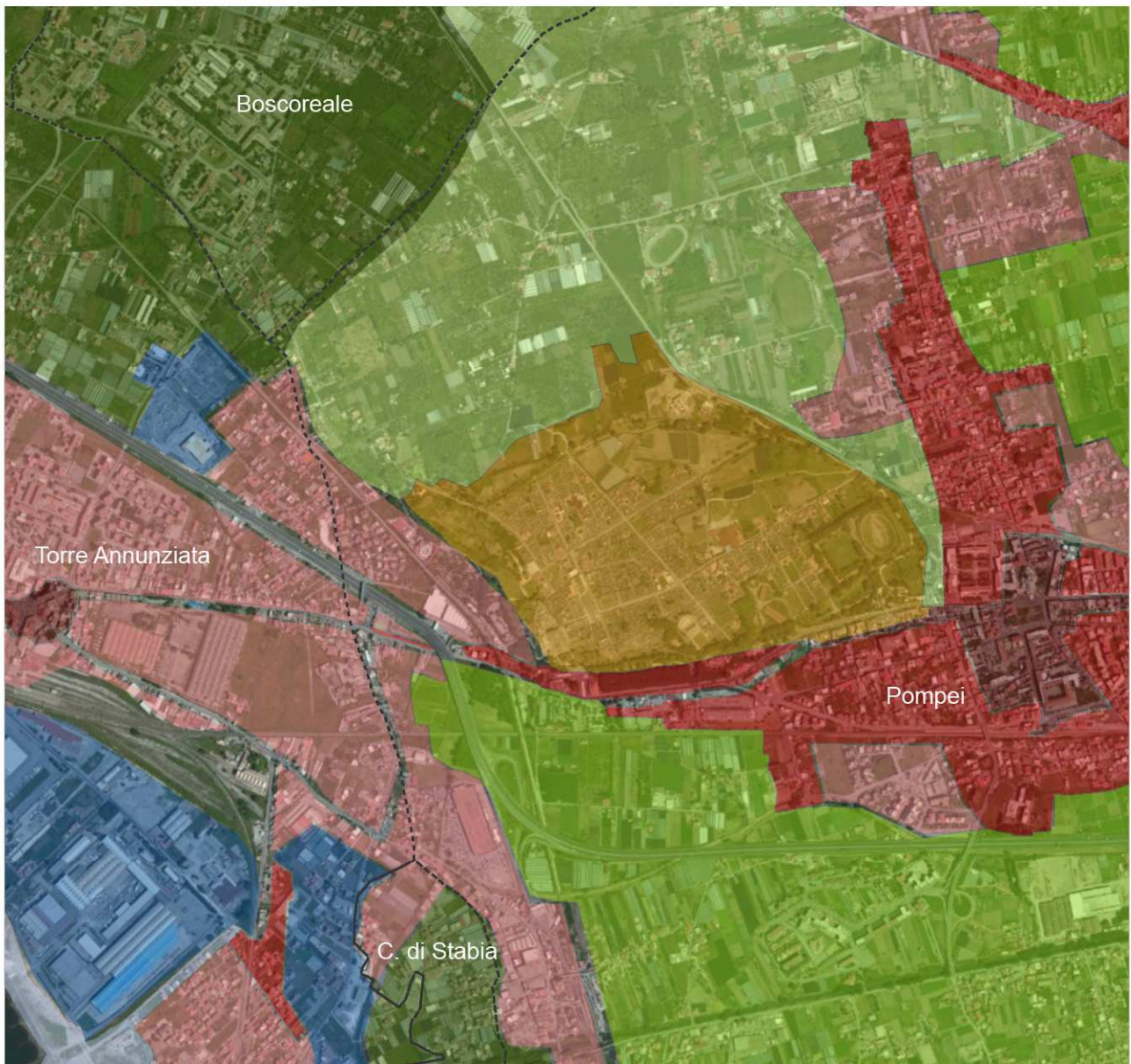


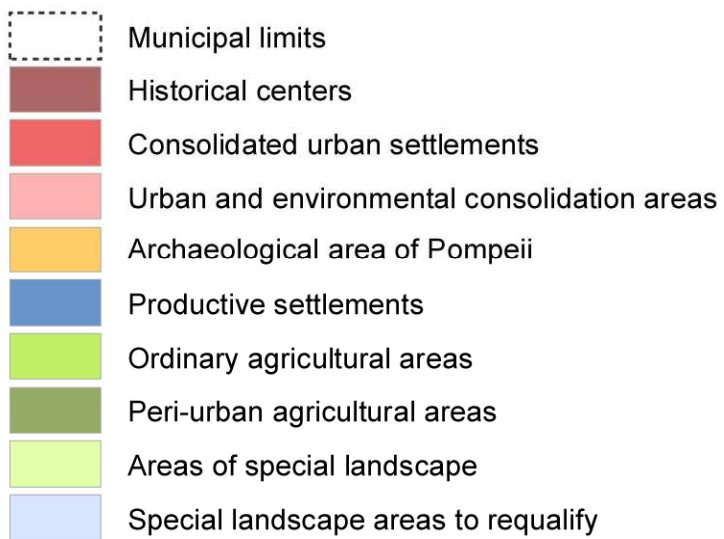
Fig. 2: Municipal Planning (P.R.G.), zoning\_1:20.000



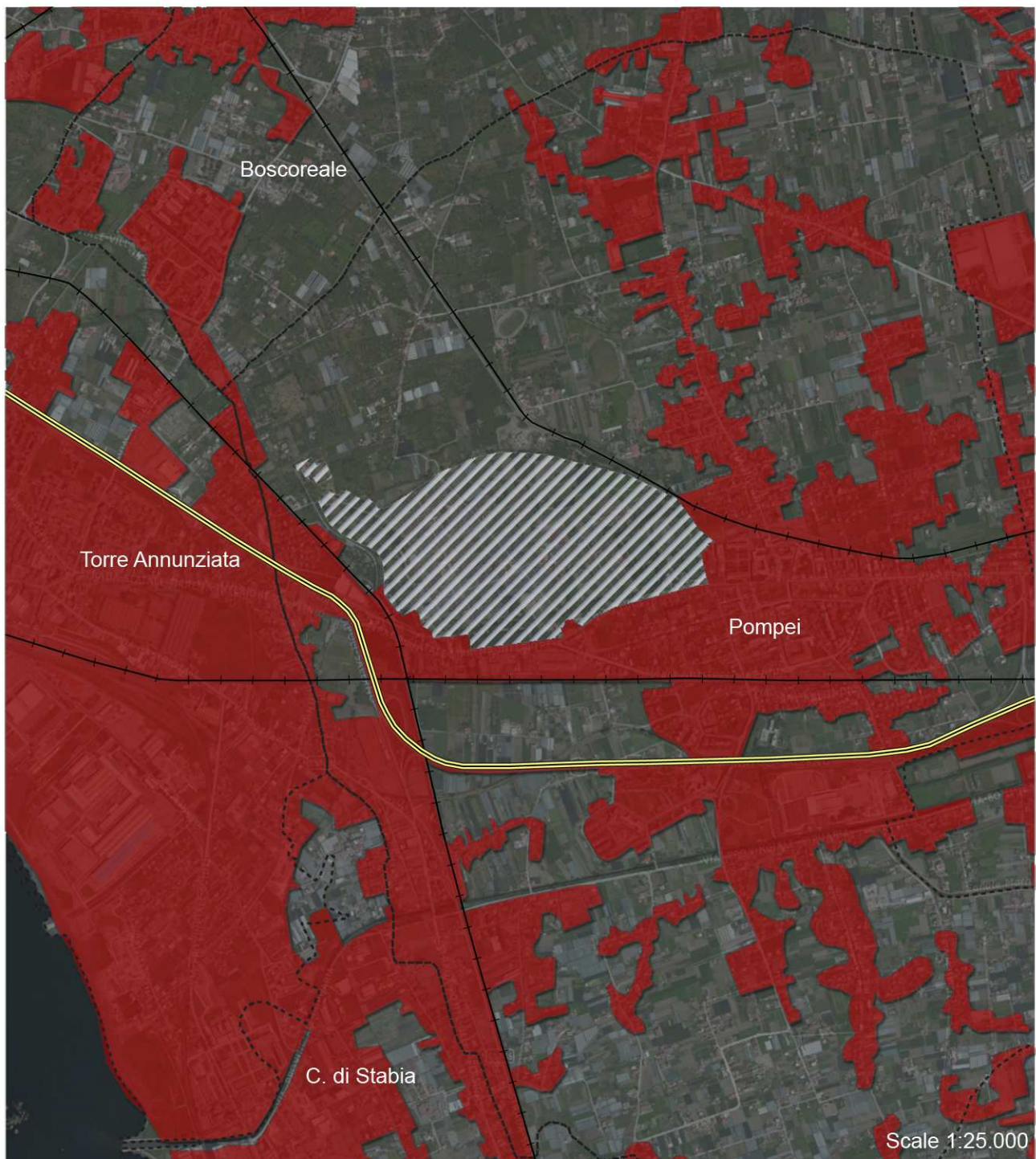




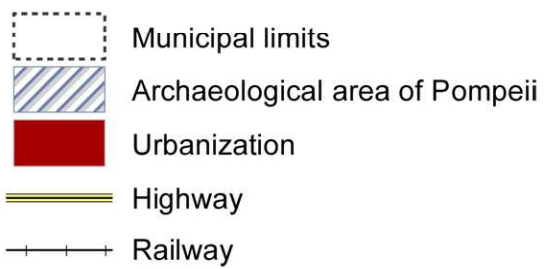
**Fig. 3:** Regional Planning (P.T.C.P.), zoning\_1:20.000







**Fig. 4:** Urban areas close to archaeological site of Pompeii



## **2. The buffer zone as a new ecological system of public space**

The environmental issue is now on the agenda of municipalities. The idea of a innovative buffer zone, which is not a mere obligation for safeguarding the archaeological site but that will enhance its importance, its centrality, it could allow to experiment on a part of the urban area the ideas, the technologies and urban development processes that promote environmental sustainability.

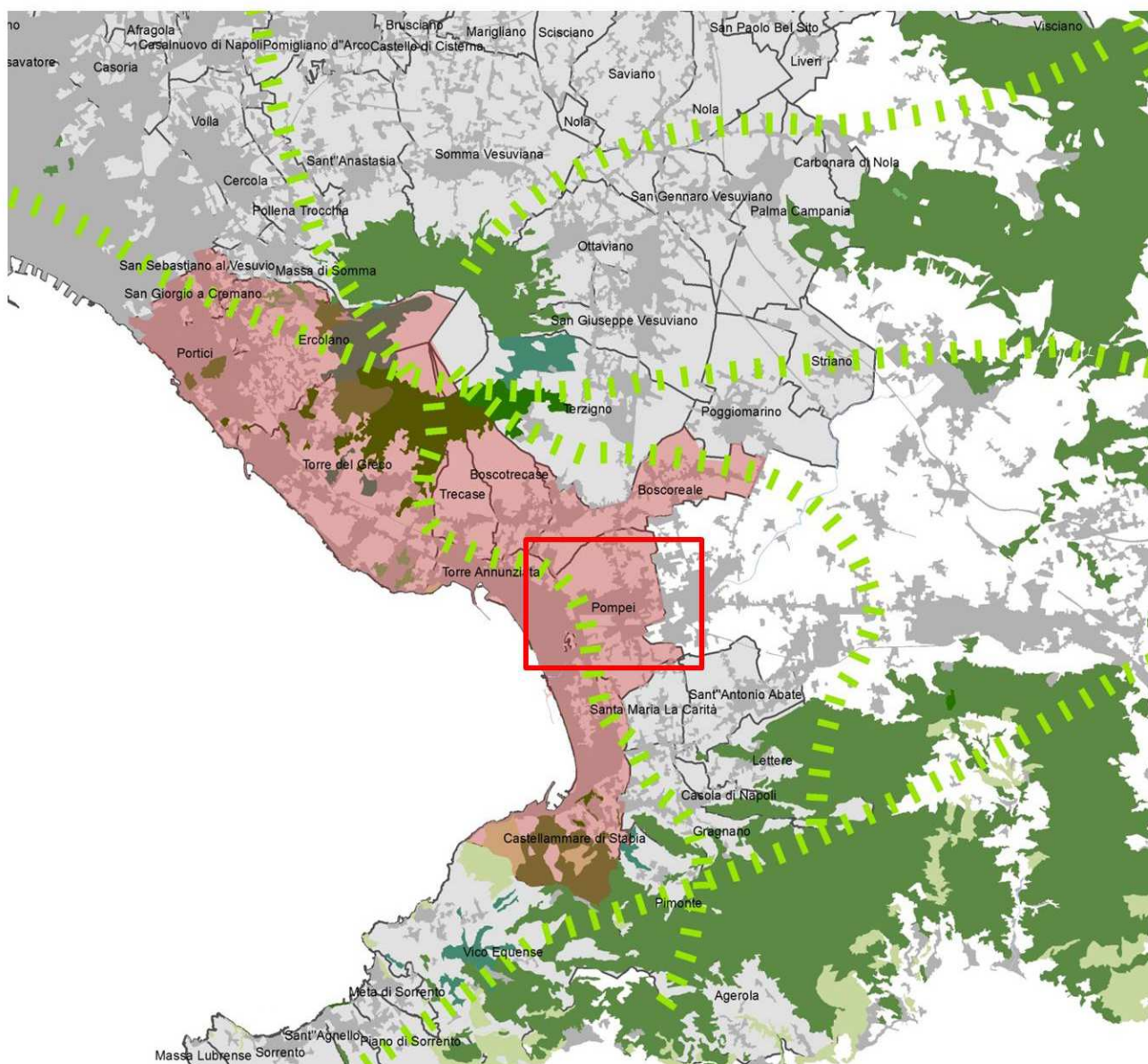
The archaeological site of Pompeii does not currently provide for a real buffer zone, with the exception of the site of the Villa of the Mysteries, leaving the site in a state of apparent calm that comes out from the logic and processes involving the city. An active buffer zone, functional to urban life, in the service of citizens and visitors but also capable of "mending" the fractures present in the system of ecological networks. A "continuous" and "adaptive" public space able to accommodate functions that are currently lacking in the city. Temporary functions compatible with the nature and the space of places. The city regains its configuration, its identity and its attractive power in the public space. The city of the future has to start, becoming creative and global, from the redesign and rethinking of these spaces. The buffer zone, understood as a new public space for the city and citizens, is the site of the new urban design, assuming a central importance in the dynamics of development of the city. The "zero volume architectures" [1] are the lifeblood of the new urban project, based on the enhancement of landscapes and ecological dynamics that characterize them, which opens to a new season and new design scenarios. The urban ecosystem is shaped and formed, it is enhanced by biodiversity, social life and new urbanity in these places and in their rediscovery.

A crucial process of development and "mending" based on green and blue infrastructure, on the system and the efficiency of a "red" infrastructural network [2] that enhances public transport, on creating a functional "mixité" able to regenerate the sites. The complex system of green or blue ecological networks becomes the material of the project "for" the soil. It becomes basic tool on which to focus the guidelines which outline the choices on which shape the future. An "ecological - landscape" approach allows to develop concretely what has been enshrined in the European Landscape Convention, in which the landscape is defined as an essential component of the context of life of the people, an expression of the diversity of their shared cultural and natural heritage and foundation of their identity. The transition to an eco-design is not just a "greening" of our model of today's society but is a new model of economic and social development to renew our ways to consume, produce, work and live together. This transition leads to a rational and efficient use of all land resources in response to industrial, environmental and climatic risks.

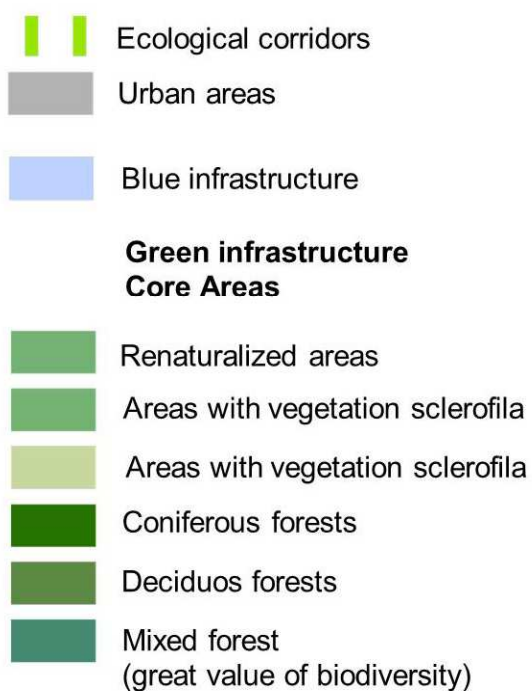
The objective is to integrate, innovate, make urban design a tool capable of transforming territories. A tool capable of increasing their capabilities of attractions, the intrinsic potential. Being able to operate at multiple levels, multiple scales where the improvement of quality of life and enhancement of the landscape remain the central objectives. In this way the buffer zone is no longer a constraint but an opportunity for transformation and development; the basis of an integrated urban design, with an eye to many and different scenarios, that exceed simplistic paradigms of zoning. Thinking on this logic, the possibility is to make the buffer zone a place with its own identity but at the same time be able to relate the city, its shapes, its material and immaterial networks, with its historical and cultural heritage.

The city of the future needs new tools so that it can be a reality. The case study is an emblem of a thought linked to do urban planning and not just to imagine it. Environmental issues, to which we give more and more a character of random disasters, are the target on which to focus the choices of development and urban planning, an renovated urban planning. This is the key for opening up new perspectives of social, economic and ecological development of the territories.

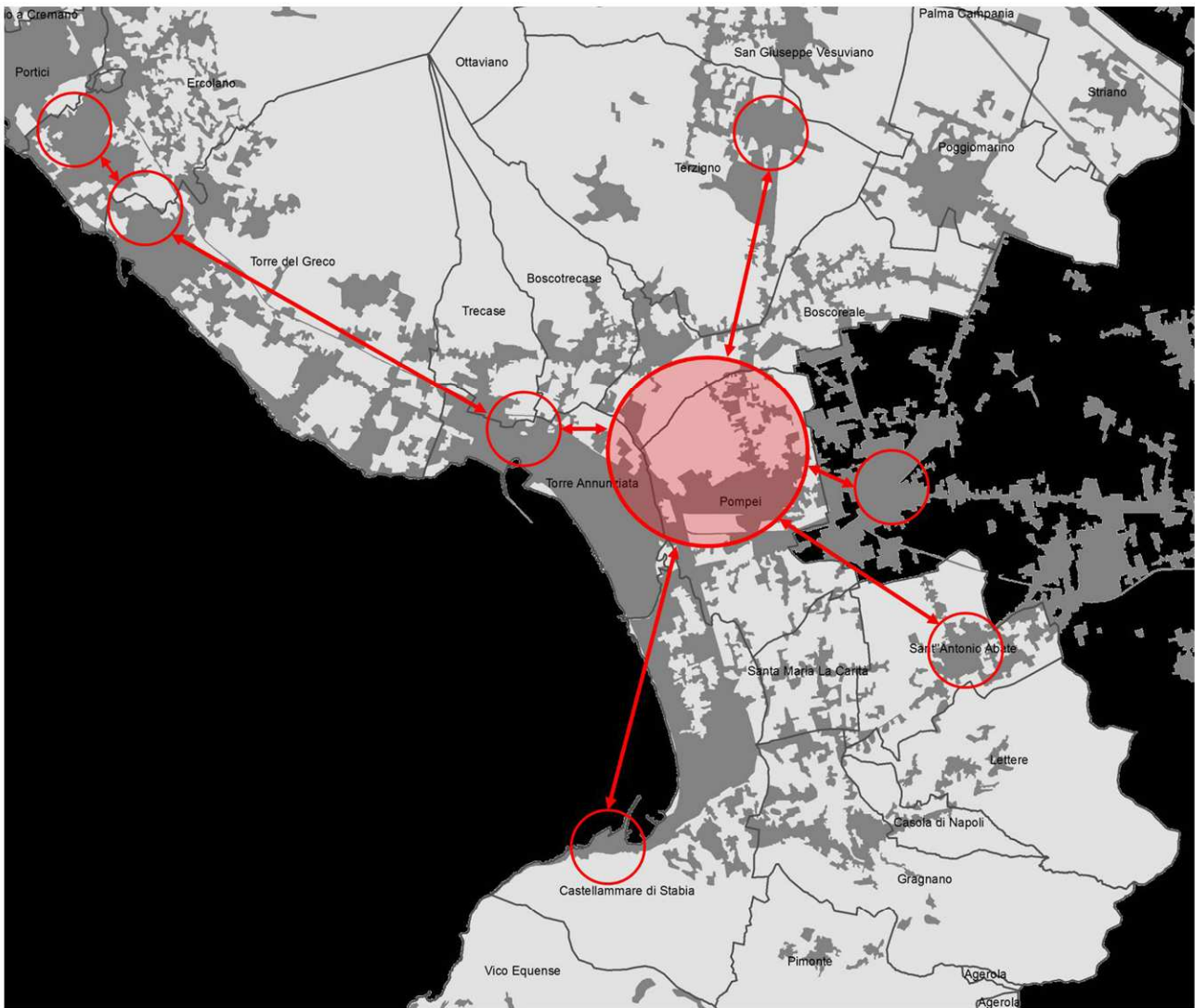




**Fig. 5:** Strategic scheme of ecological connections on project areas of Pompeii

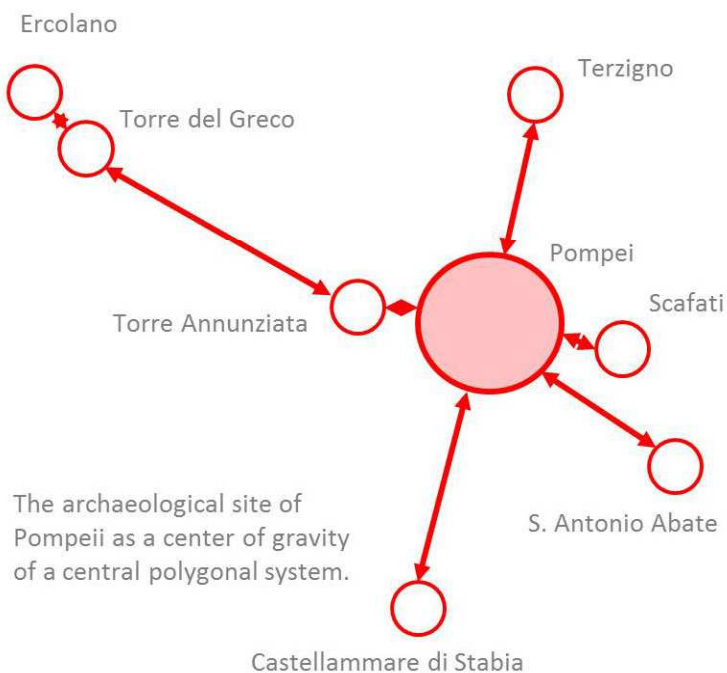






**Fig. 6:** Concept scheme of the urban system with the "new gravity center" of buffer zone in Pompeii

## Concept scheme Polygonal System



Notes:

[1] Aldo Aymonino, Valerio Paolo Mosco (2006), *Spazi pubblici contemporanei. Architettura a volume zero*, Skira, Milano

[2] The term "red infrastructures" comes from research paper "Ecological dimension. A research on new materials of the urban project" and it identifies the infrastructural system created by man (highways, roads, railways, airport hubs, ports, transport and energy production infrastructure) that follow, in the processes of territorial transformation, different trajectories from green and blue infrastructure, not-integrating and leading to environmental very serious imbalances. The term "red" strives to emphasize their importance and their close link to the green and blue networks for the territorial planning.

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