



POLITECNICO  
DI TORINO

# Honors thesis

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## COURSE OF ARCHITECTURE FOR SUSTAINABLE PROJECT

*Abstract*

**Urban Addition.**  
Parasite architecture  
as a micro-densification strategy for the city

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Italy is one of the countries with the highest level of land consumption, compared to the European average.

The objective is clear to everybody and it seems to have become a moral obligation towards the environment we live in: we must drastically reduce the land consumption.

This leads inexorably to search for alternative ways to make the cities grow, such as: the densification, which leads to an intervention on existing built-up areas, the identification of urban voids, or the recycling and reuse of abandoned or degraded areas.

Densifying the cities is not just consuming less land, but it is an opportunity to experience the new conditions of urbanity, that concern both the people living there, and the urban structure of the city itself.

In Italy, intervention on historical areas is extremely complex, because the density is very high and the heritage protection laws are very restrictive. Turin, in recent decades, has used up a large amount of land and now needs new development sustainable for the environment.

How can you apply a densification project in Turin, protecting these goals?

The thesis proposes an alternative to the macro-densification, which has found great acclaim in recent years through the so-called "spine" project. The thought is to acquire a better densification using a very low building index, below that currently permitted by the town planning, or the housing plan.

It is a densification strategy that allows you to increase the availability of spaces that can be adapted to changing needs. This densification strategy draws on the language of parasitic architecture, taking some theoretical ideas, but also on European experiences that have already established themselves and apply them to the local context and legislation number 7.

The parasitic increase concerns the annexation of small buildings, randomly scattered in the city, to be seen as catalysts of change. The inclusion of parasitic structures on existing buildings, could not only be a possible solution to the concept of densification, but would highlight the problems and inconveniences that our cities live and which are not normally observed.

The densification strategy, once tested, is an option that can be added to those granted by other urban tools. The thesis investigates the chance of increasing items, parts and annexation that can change their intended use in the course of their lives and at the same time losing their need to exist. In this way, some characteristics of the biological definition of parasite have been introduced in the design as the project idea, becoming the key mechanisms: the habitat is the source of selection, the parasite adapts itself, the parasite interacts socially, the parasite changes and evolves. Considering its potential development, the thought is therefore about buildings which are no longer designed according to the current regulations minimum limits of 50 years, but, as said before, according to the needs and the context can change physically or lose their need to exist.

The parasite not only recycles the land, vertically or horizontally to the surface on which it is located, but reinterprets that already existing, and just as the parasite, in its biological definition, uses the host body to evolve, in the same way the parasite uses the existing building to reinvent it all. It's a symbiotic help between host and guest. The existing needs a fuse that triggers the transformation, the guest uses the structure, the facilities and the surface to trigger this change. In this way the parasite ceases to have a negative objection, giving new meaning and new life to the existing.

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