

TERRARIA. AN EXPERIMENTAL GRAMMAR OF SOIL CONTAMINATIONS

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As the Wasteocene logic reproduces wasted people and ecosystems, any alternative project cannot be anything less than a multispecies liberation alliance. (Armiero 2021)

A terrarium is a miniature landscape project: the definition of a circumscribed space aimed at the apparently controlled containment of a specific ecosystem and the contemplative observation of its vital movements.

The name terrarium misleads one into thinking that the object of interest is the soil itself, in Latin *terra*. In truth, it is what happens between and of the parts of the contained substrate that arouses infinite wonder: the chemical-physical transformations of matter that allow the progressive activation, multiplication, and replacement of life forms.

This experiment stems from the intuition that in every soil, even the most bituminous and monstrous urban waste, there is a biological, ecological, and aesthetic potential to be expressed. The aim was to test and compare, all conditions being equal, the *happiness of existence* (Clement 1991) and the micro-architectural complexity of an urban waste soil and a commercial one.

The design action consists simply of building three identical containers and planting the same seeds in different combinations of the two soils. The rest is waiting, with almost no maintenance but systematic documentation. The design posture is humble and courageous at the same time: the provision of certain structuring elements to trigger and observe a process whose development is the negotiated work of several authors, human and non-human. Traces of unexpected, situated, and always eloquent vitality are witnessed, even when minimal; the terrarium is an instrument to amplify its diversity.

If this were a truly scientific experiment, it would require a significant disciplinary (e.g., pedological, biological, photographic) and economic apparatus, as well as a certain programmatic-executive rigour and quantitative-dimensional copiousness.

Nonetheless, the interest of this device lies precisely in its prototypical uncertainty, because it is contingent and therefore real, and because a process composed in this way constitutes a possible response in the contemporary quest to redefine the no longer binary relationship between man and nature, between project and landscape. The partial loss of control can be a co-creative stimulus instead of inhibition, a space for “a multi-species liberation alliance” (Armiero 2021).

SITE

At the edges of the large open space of the Ex-Mattatoio in Rome, spontaneous gardens emerge seasonally, often unnoticed.

The project is located along the inner perimeter of the boundary wall, in a de-paved portion facing east, framed by wooden planks and protected by the foliage of a young olive tree.

Photo by Margherita Autorino, 2023.



TRIGGER

Boxes

Three identical Plexiglas parallelepipeds open at the top, with minimum handling dimensions (50x25x12 cm). Waterproof, to retain moisture. Transparent, so as not to filter light or especially the observer's eye.

Soils

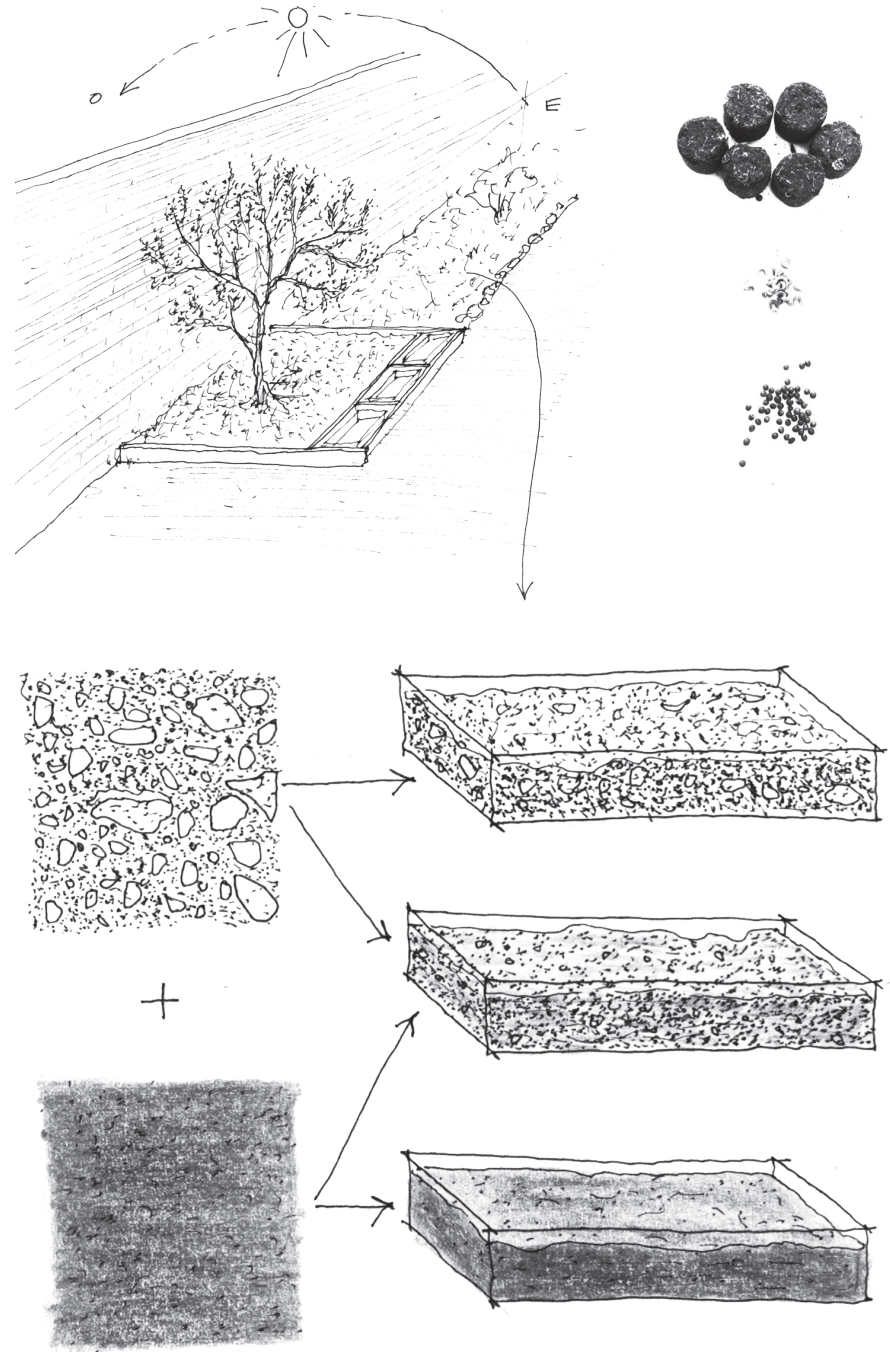
20l of urban waste soil, found on site (aggregates, sand, organic matter, asphalt). 20l of universal garden soil, purchased (neutral sphagnum peat). The two soil types converge in three combinations, in order top-down in the image: a poor and draining one, exclusively waste soil; a rich and compact one, exclusively topsoil; a mixed one, half of both types.

Grains

Explosive composition of herbaceous perennials, biennials and annuals, melliferous and cosmopolitan.

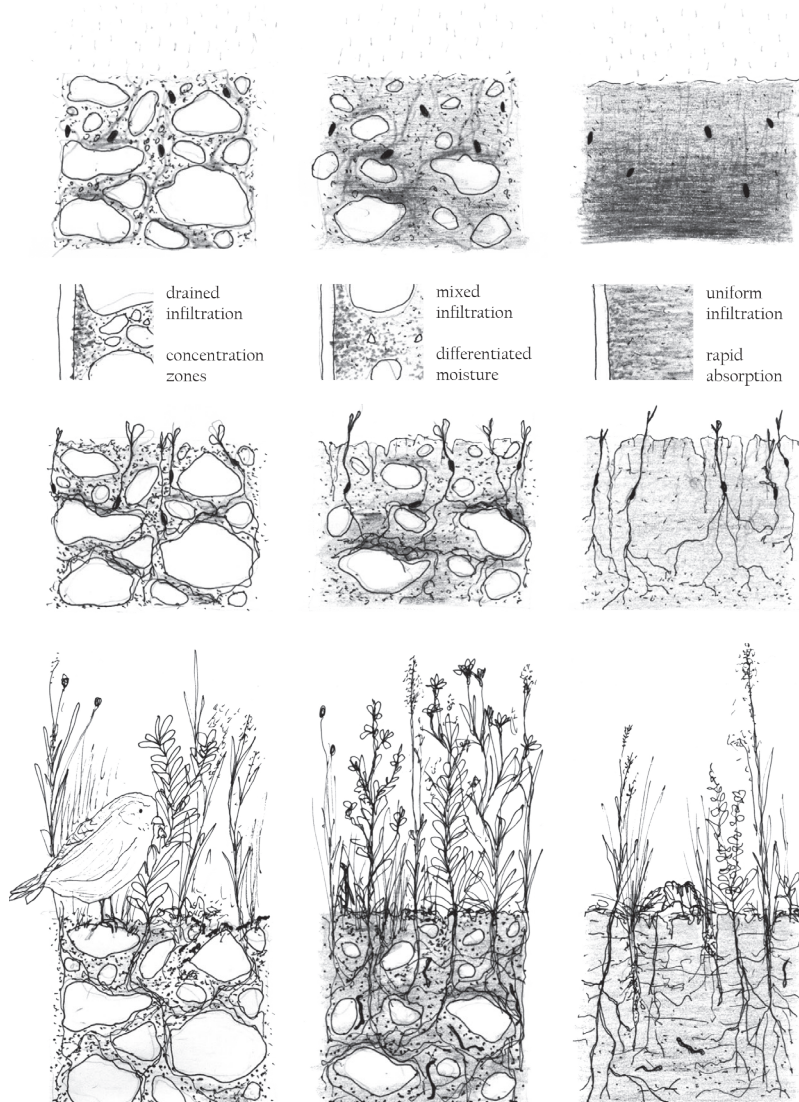
Borago officinalis, *Calendula officinalis*, *Echium vulgare*, *Hypericum perforatum*, *Lotus corniculatus*, *Medicago lupulina*, *Melilotus officinalis*, *Onobrychis viciifolia*, *Phacelia tanacetifolia*, *Salvia officinalis*, *Sinapis alba*, *Trifolium incarnatum*, *Vicia villosa*.

Drawings by Margherita Autorino, 2023.



ECOLOGIES

The composition of each soil favours different chemical and physical dynamics of moisture and nutrient distribution, thus encouraging specific settlements. The large and numerous aggregates of waste soil (left) create differentiated drainage and a system of cavities and accumulations. The homogeneity of universal topsoil (right), on the other hand, produces uniform absorption, which, combined with abundant nutrients, generates a fertile and short growing cycle. Plants, insects and animals are distributed according to the most suitable conditions. Drawings by Margherita Autorino, 2023.

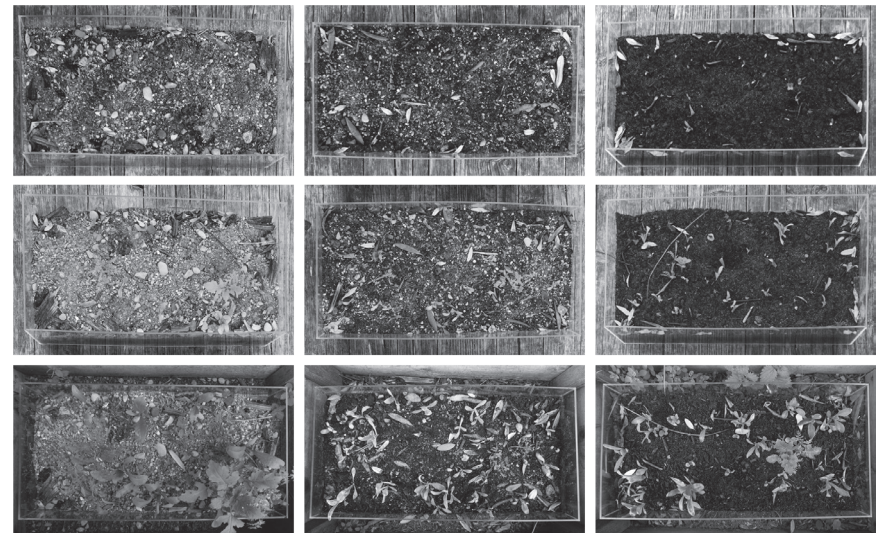


TIME

Pictures were taken every ten days during spring 2023.
In order, from left to right: waste soil, mixed soil and topsoil.
Photos by Margherita Autorino, 2023.

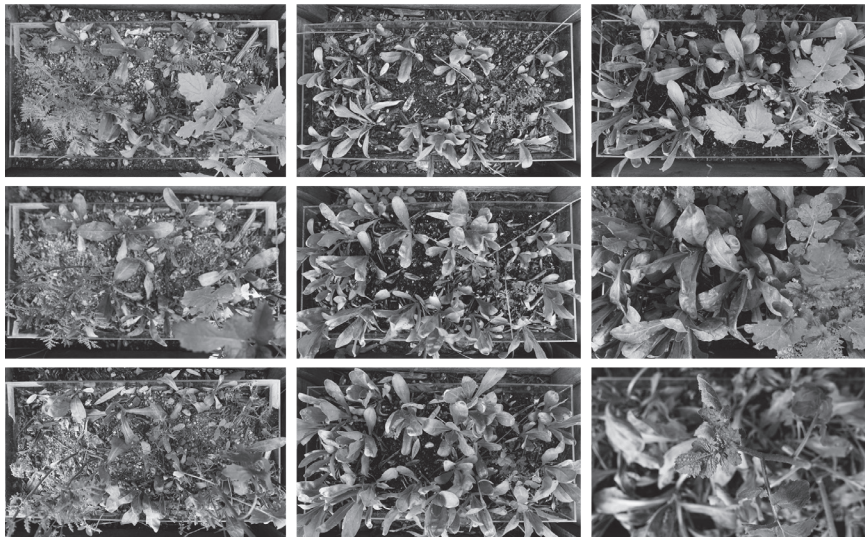
April

The first germination phase, after the rainy month, is already diverse.
In the waste soil, a *Sinapis alba* and a *Phacelia tanacetifolia* stand out slender and solitary. The mixed and topsoil produce an even and slower distribution, mainly of *Calendula officinalis*.



May

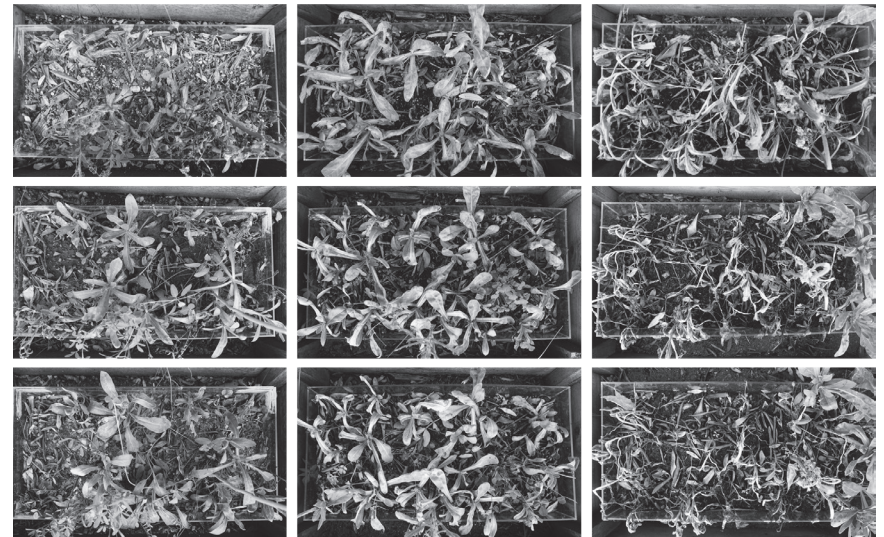
All three terraria explode. Everywhere the area covered by vegetation exceeds the bare one. A few species use the others for support and protection: *Echium vulgare* and *Vicia villosa* in the poor soil, *Trifolium incarnatum* in the mixed, *Salvia officinalis* in the rich. All around, the olive tree drops a few leaves to mulch the surface, nettle, *Euphorbia*, and ants take up space, who knows if *Bituminaria bituminosa* will also...



June

The first forms of decay, especially in topsoil. It is all decomposing organic matter, food for other species.

Some, such as *Melilotus officinalis* in waste soil, are biennials or perennials; they will only partially decay, enter a state of dormancy and re-emerge after the adverse season.



ARCHITECTURE

The most spectacular result is the microscopic spatial one.

In the first case a monumental composition, the most thinned and the most flowering (in the picture *Phacelia tanacetifolia* and *Vicia villosa*) as well as the most diverse in depth: large cavities, with their relative reserves of moisture, are true caves with moss beds; elsewhere, large buds are preparing for future hegemony. In the second case, a discrete hypostyle hall at the surface (in the picture *Calendula officinalis*,

Trifolium incarnatum, *Phacelia tanacetifolia*), supported by a dense, branched root system at the very bottom. Finally, in the third case, a layered arrangement of clumps on the surface (in the picture *Calendula officinalis*, *Salvia officinalis*) proves ephemeral at depth, where thin linear structures float.

Each condition has generated a specific ecology and architecture.

Photos by Margherita Autorino, 2023.

