Landscape Design as the Representation of Relationships with Nature, Ecologies and other Living Species

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Landscape design has always been considered an open reference, an available space of interpretation, but this is not equivalent to considering it a field of indeterminate images and concepts [Caravaggi 2021].
The hypothesis I will attempt to argue in this article is that landscape design can be coherently interpreted as a representation of the infinite relationships between human societies and the natural world and, more recently, between humans and other living species.
I would like to be able use other terms rather than 'nature' and 'natural', in taking up Bruno Latour's recommendation [Latour 2018]. Dismantling the dualistic nature-culture construct allows us to reveal that it is, in fact, a single and highly-cohesive concept which in many contemporary landscape design projects has been traced back to the ecological sphere and more recently to the broader dimension of 'living' [Caravaggi 2018; 2020; 2022]. The challenge to conventional binary thinking appears, in other words, inevitable, if one wants to interpret landscapes having undergone fierce contemporary transformations.
Many landscape architects, even though they belong to different cultural and historical contexts, have a common vision capable of seeing living species as traveling companions on the path to the project and not as trivial 'tools', as is also evidenced by their drawings, aimed at highlighting relationships rather than objects. Landscape has always been, since its modern foundation with Alexander Von Humbold (1769-1859), a system of relationships [Caravaggi 2023a].

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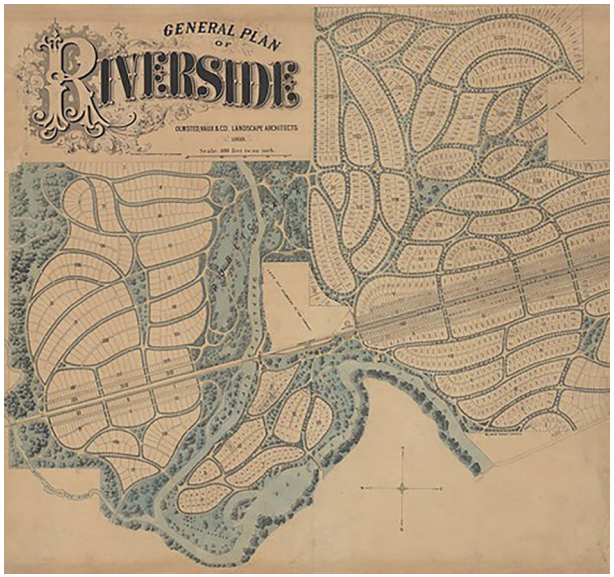


Fig. 1. F.L. Olmsted, General Plan of Riverside, Chicago, 1868 (Olmsted archives litho 00607).

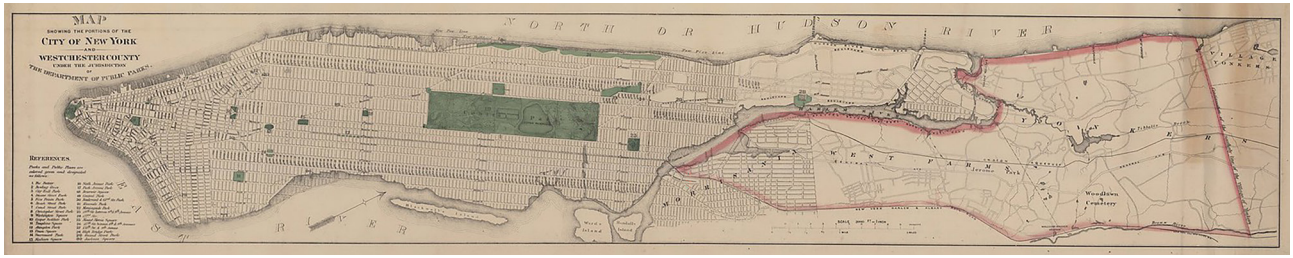
The selection of images that follows is intended to precisely highlight the relational character of landscape design, but also the trust in design understood as a possibility of action in the face of phenomena that seem impossible to control, such as the worsening ecological crisis and climate change, the loss of biodiversity and the growth of social inequalities.
In this sense, the reference to Frederick Law Olmsted (1822-1903) is an almost obligatory starting point. A firm believer in the possibility of profoundly influencing the construction of the city through large-scale green interventions intended to condition its future expansions and functionings, Olmsted also upheld the need for a close relationship between projects and new demands for social equality and urban democracy [Caravaggi 2023b]. Indeed, for Olmsted, the mediation of the landscape architect's work constitutes the means by which to foster democratic development and guarantee every citizen's enjoyment of nature [1], understood not as irreducible wilderness, but as domesticated, healthy, beneficial space, accessible to all [Imbroglini 2003; 2019].

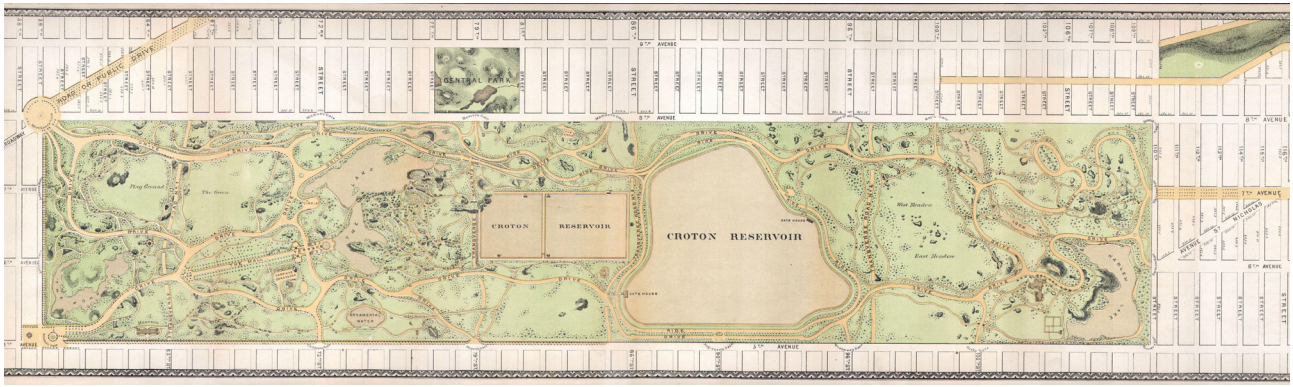
Interrelationships and 'open' landscapes

The emergence of a new historical-environmental awareness based on the discovery of the physical-biological limits of natural systems fueled, between the 1960s and 1980s, new design experiments characterized by the affirmation of positions of a 'relational' nature that opposed the objective nature of classical geography. In the post-World War II period, the affirmation of the relational and systemic character of the landscape also found full expression in our country [Italy].
Vittoria Calzolari outlines the 'structure' of the landscape as the outcome of "correlations between morphological, biophysical and climatic factors, components of an ecological system regulated by mechanisms of action and retroaction, but also by the historical evolution of geo-political, juridical, economic, technological and other similar structures, hence the term 'anthropogeographical structure'" [Calzolari 1974, p. 82].
As in Calzolari's drawings, "Lands, waters, woods, countryside, parks, historical buildings and places, paths, tend to be seen in their interrelation and integration as parts of a single structure and of a unitary design project: this concept is valid for the project for conservation of the historical landscape, as well as the project for creating new landscapes" [Calzolari 1999, p. 61]. The idea of 'system' sanctions not only the inexorably relational nature of every action aimed at the landscape, initiating a harsh critique of sectorial actions, but also the need for strategic thinking capable of leading individual design experiments back to the same general purpose. This attitude courageously introduces a trans-scalar dimension into the project, in a period still dominated by cascading planning and design (from large to small).
In addition to historical dynamics and the rearticulation of spatial scales of representation, the temporal dimension also officially enters landscape design, being understood as the possibility of 'natural evolution' in space and time, as is evident in the work of a number of landscape architects, including, in France, Michel Corajoud. In the Parc de Sausset, the realization of the patterns of the countryside relies on a geometric reading of the context, to make evident the relationship with the new public spaces, but also the evolution of natural forms over time: "It is a very refined work that interprets and exploits the potential of the place, without subjecting it to a radical and arbitrary transformation. This respect for the soil has nothing conservative about it; it is the condition of the future […]. In

Fig. 2. F.L. Olmsted, Central Park (Olmsted archives 00502-5).

Fig. 3. F.L. Olmsted _Map_of_Central_Park,_New_York_City, 1869 (Olmsted archives 00502-8).





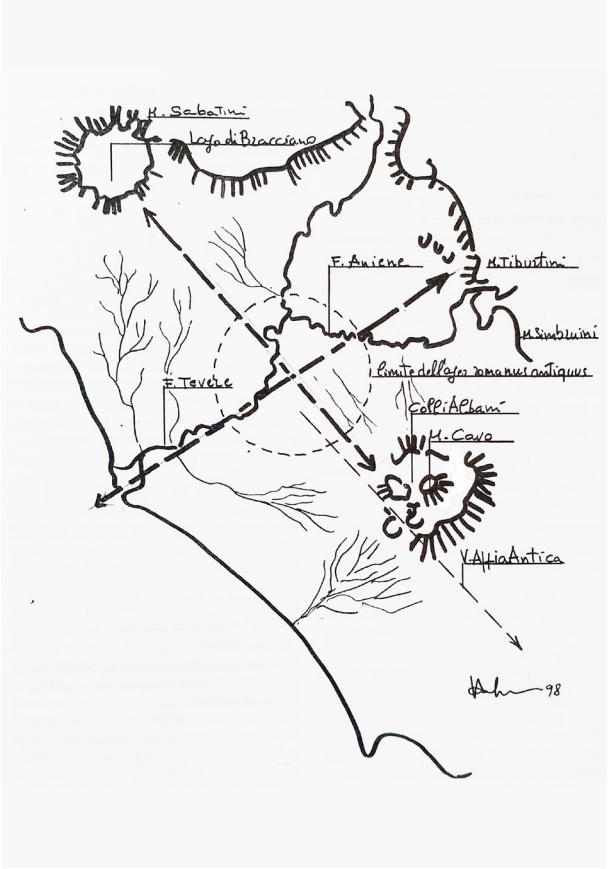


Fig. 4. V. Calzolari, Trame insediative e trame ambientali. Corridoi verdi e linee d'acqua. Quattro generazioni di oggetti sull'affaccio di Monte Mario [from Calzolari 1999, p. 246].

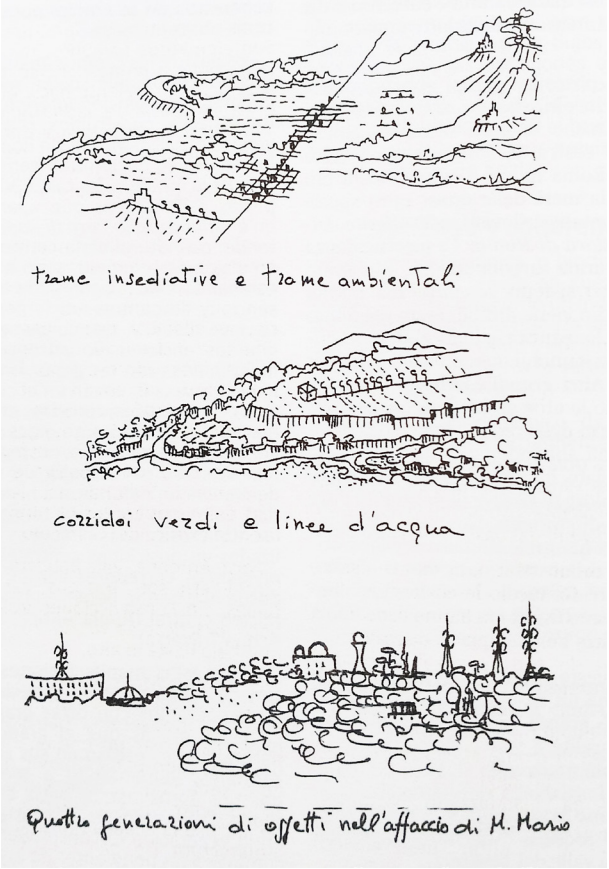


Fig. 5. V. Calzolari, Tracciati ordinatori della struttura storico-morfologica dell'area romana. [from Calzolari 1999, p. 50].

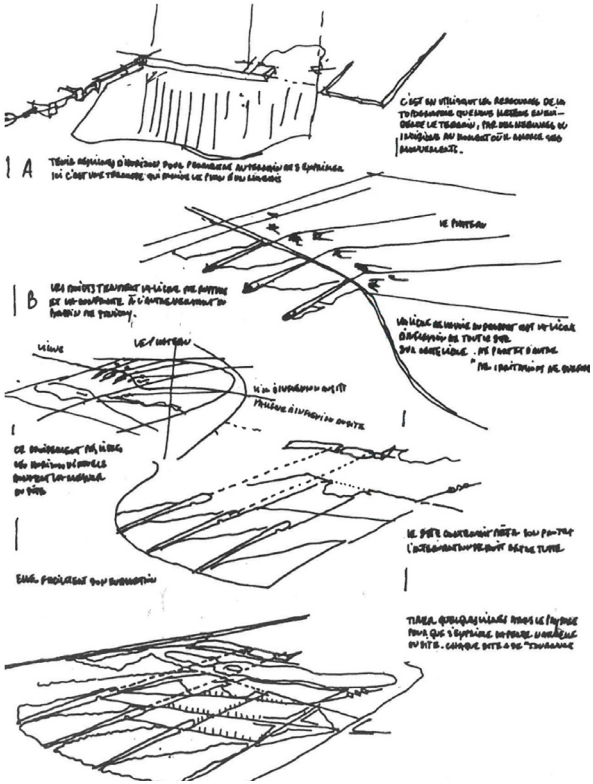


Fig. 6. M. Corajoud, explanatory diagram of the functioning of the Parc du Sausset], 1989 (from Nourrisson 2000].

Fig. 7. M. Corajoud, diagram of the geometric pattern of the Parc du Sausset, 1980 [from Nourrisson 2000].

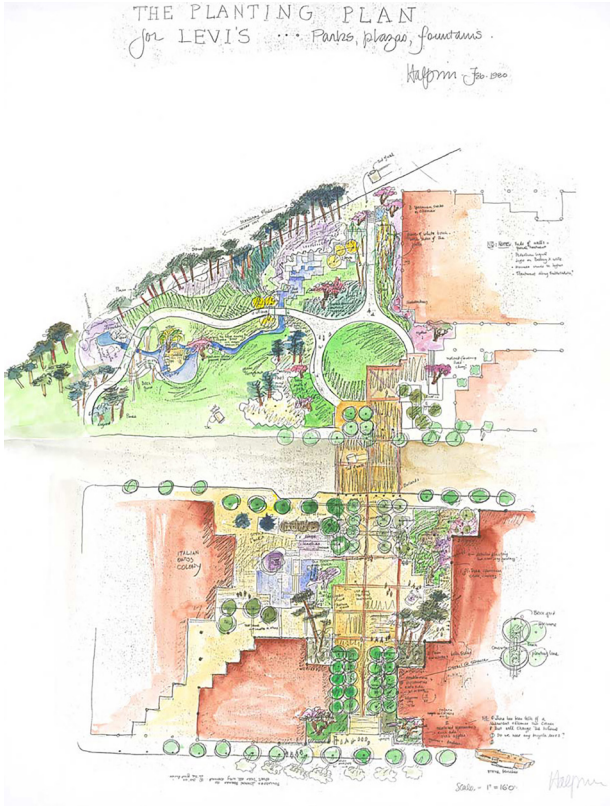


Fig. 8. L. Halprin, Levi's plaza site plan in San Francisco, 1979-82 (<http://www.tclf.org/sites/default/files/microsites/halprinlegacy/levis-plaza.html>).

this, the landscape architect, with other means and other finalities, takes up the farmer's baton. Michel Corajoud finds in traditional agriculture a model and a source of inspiration" [Collot 1998-1999, pp. 164-165] [2].
In those same years, landscape design was transformed into an 'open process' [3], also with respect to the people who wanted to take part in it, starting with the founding experiences of Lawrence Halprin. The new relationships between man and the environment, between different (and often distant) disciplines, led Halprin to define landscape design as an art of collective creativity, and cities as a place where people can realize their creative potential [Gangemi 2019].
The 'open' landscape is not a given (fixed) space attributable to clear demands on the part of well-defined subjects, but also to a system of interactions between different, heterogeneous, often conflicting components. And Halprin's highly animated drawings bear full witness to its historical relevance and extraordinary topicality.

Dynamic ecologies

A second stage, relevant from the point of view of the affirmation of relational thinking and trust in design is connected to the worsening ecological crisis. Ecology, which stands precisely as the science of relationships between living organisms and their living contexts, has, since the 1990s, assumed a prominent role in the interpretation of many contemporary landscapes. The reference to dynamic patterns, understood as a set of actions and retroactions, emphasizing the relevance of the temporal dimension and its uncertainty, also entails a profound transformation in the way design is considered.
The new interpretations of contemporary urbanized territories take their cue from the positions of important contemporary sociologists and geographers, such as David Harvey and Edward Soja, who invite us to read the structural transformations of metropolitan regions starting from the economic mechanisms that determine their increases, crises and spatial mutations, aspects that are irremediably different from the modern city. They are the exponents of Landscape Urbanism who, interpreting the dynamics of contemporary urbanization from patterns of exchange and flows of people, vehicles, materials and information, propose a new 'radical' relationship between the science of ecology and design culture. The intention is to free ecology from the objective limits of the ecological

Fig. 9. L. Halprin, Sketch of Jerusalem, 1987(<https://www.tclf.org/sites/default/files/microsites/halprinlegacy/haas-promenade.html>).

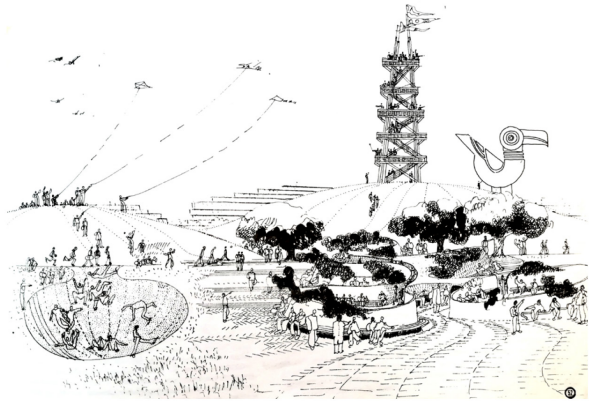


Fig. 10. J. Simon, Schizzo di un parco, Aménagement des espaces libres. Plans, Croquis, perspectives de projets, n° 23, 1988.

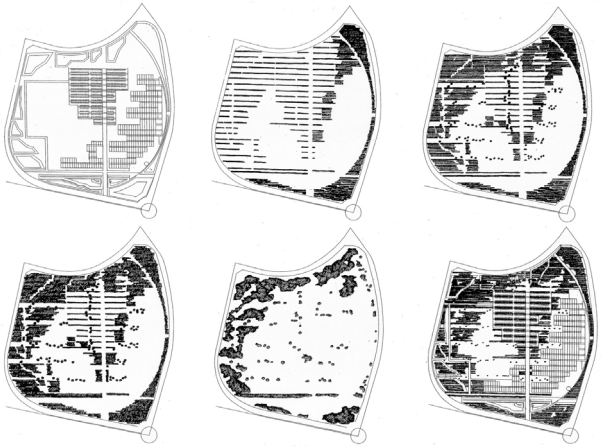


Fig. 11. M. Desvigne, 30 year planting development, Thomas Plant, Guyancourt, 1989 (<https://micheldesvignepaysagiste.com/en/michel-desvigne-0>).

paradigm, contrasting and reinterpreting it starting from new cultural, professional, historical and geographical perspectives: "Our intention was to bring science out of ecology and bring it into design, and to take art out of design and bring it into ecology" [Corner 2011, p. 23]. The focus thus shifts towards building a direct dialogue with the processes, whether environmental, economic or social.

OMA's plans for the Parc de la Villette competition constitute a shared reference; the idea of 'programmatic indeterminacy' asserts itself within landscape design [Waldheim 2006; 2016; Corner 1997], and encourages the widespread use of maps and diagrams as tools for a representation capable of communicating the different evolutionary possibilities of a given structure.

For James Corner, it is necessary to develop new creative ways to shape process design: "In this sense, landscape exceeds typical architectural concerns with formal and stylistic appearance and demands a more focused attention to the design of method, process and configuration of emergence" [Corner 2007, p. 150].

A significant example of planning in this sense is the well-known *Lifescape Project* for the rehabilitation of the Fresh Kills Landfill in New York. Here, Corner proposes a new form of public-ecological landscape guided by time and processes, where the logic of natural systems and the self-adaptive ecological dynamics are used to define multi-scalar and multi-temporal strategies. Corner defines the new identity of this nature reserve as 'nature sprawl', imagining it as supporting a spontaneous process of the diffusion of plant and animal species that, over the course of twenty years, will recompose a synthetic nature which, although governed by technology and by a project, will become a place of emerging colonizations, both natural and artificial.

In James Corner's works, ecology is taken as the engine of figurability: "In these early experiments with radical ecological indeterminacy, urban form is given not from planning, policy, or precedent, but through the self-regulation of emergent ecologies as curated by a landscape urbanist" [Waldheim 2016, p. 45].

In Europe, too, ecology proves to be a matrix of spatial ordering with respect to different scales and themes. Projects testify to a growing attention toward aspects of environmental functioning, initiating a long season of regenerations and renaturalizations. The form comes from the knowledge of morphological, hydraulic and ecological dynamics, whether real or potential, as in the case of many projects by Michel Desvigne and George Descombes, which at times, however, seem to become too complacent with such a powerful formal matrix.

Fig. 12. J. Corner, Field Operation, Freshkills, growing a park over time, 2001 (<https://www.fieldoperations.net/project-details/project/freshkills-park.html>).

The point of view of the subjects is introduced into the new landscape designs in new forms. In Europe, it is especially Jacques Simon who reaffirms the landscape as a public asset, an asset of the earth offered to the community, at the service of a creativity and inventiveness that is always imagined 'for' and 'in function of' someone [Colafranceschi, Galì-Izard 2018]. Simon's garden has very broad boundaries, to the point of coinciding with vast agricultural and natural spaces, in which the landscape architect's sign is only a signal, an acknowledgement and a tribute. In this framework, his project for the Parc de la Deûle in Lille appears significant [4]. The proposal envisions the restoration of natural conditions in a vast territory exploited and polluted by mining, through the reclamation of contaminated sites, the ecological restoration of water lines and green spaces, and the reconstitution of an agricultural land plot that infiltrates into Lille's urbanized suburban territories and transforms itself into a local environmental network, the largest regional *trame verte et bleue* [5].
The project testifies to the emergence of a new aesthetic perception based on the right of natural components to evolve freely, winning back run-down, abandoned spaces; this perception finds its full affirmation in Gilles Clément's *Manifesto del Terzo paesaggio* [*Manifeste pour le Tiers paysage* /*Manifesto of the Third Landscape* 2004] [Lei 2023].

The climate crisis and relations with "other" living species

Concerns about the loss of biodiversity and new challenges related to climate change underlie a further evolution of landscape design characterized by an increasing attention to other living species, not only plants, but also animals [Imbroglini, Lei 2023].
The theme of the common fate binding humans and non-humans becomes central.
Rather than the holistic slogan of 'everything is connected to everything else', which is perhaps no longer helpful, along with Donna Haraway we might say that "everything is connected to something that in turn is connected to something else" [Haraway 2019, p. 60]. In other words, what matters is the specificity and proximity of connections, that is, who we are connected to and in what way.
The crisis of the antinomy between human and natural is accompanied by many other disconnections, involving established oppositions within the design culture of architecture and landscape, beginning with that which for almost two centuries has rigidly confined science and creativity, and in more recent years has exacerbated the opposition between the scientific determinism of ecology and the aestheticizing drifts of urban and landscape design [Lentini 2019].

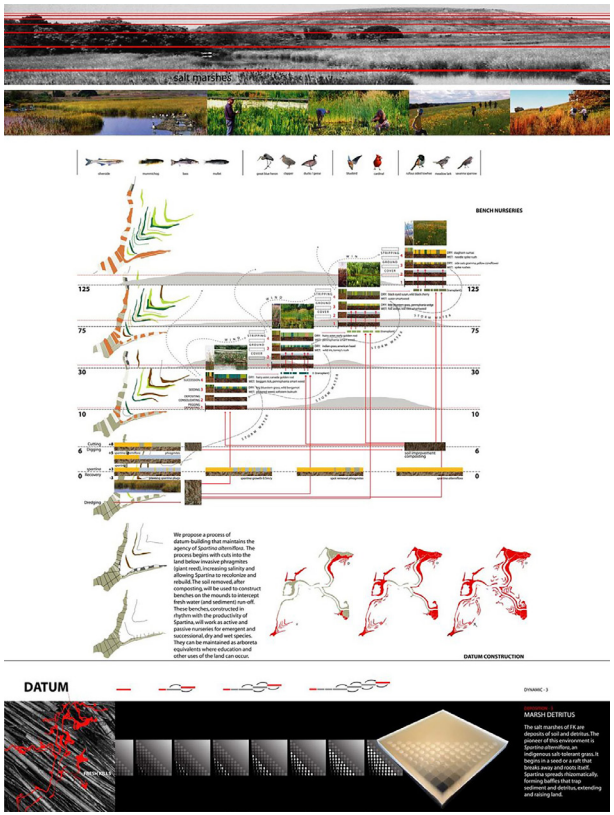


Fig. 13. Mathur da Cunha with Tom Leader Studio, Dynamic coalition. Fresh Kills landfill, 2001 (<https://www.mathurdacunha.com/dynamic-coalition>).

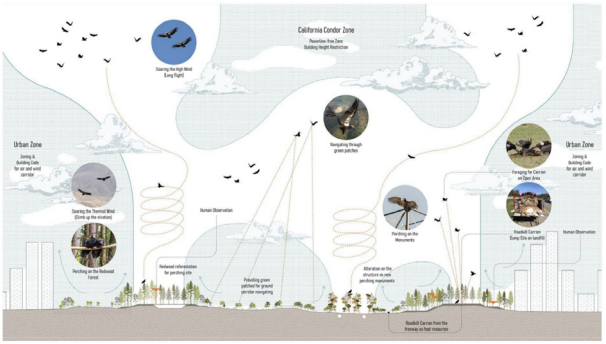


Fig. 14. C. Reed, 2022, Wild Ways: A Fifth Ecology for Metropolitan Los Angeles. California Condor Zone with building height and powerline restrictions (<https://issuu.com/gsdharvard/docs/wild_ways>).

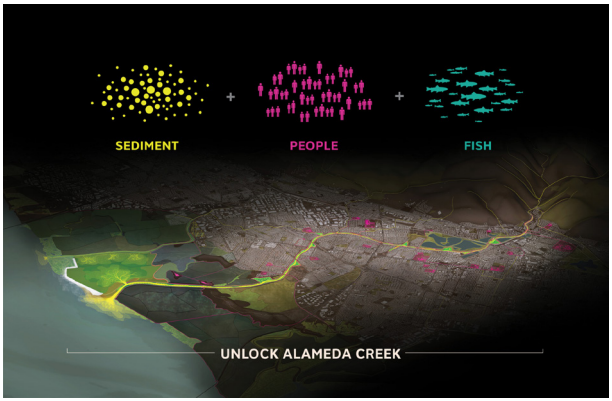


Fig. 15. K. Orff, Scape, Public Sediment for Alameda Creek (<https://www.scapestudio.com/projects/public-sediment/>).

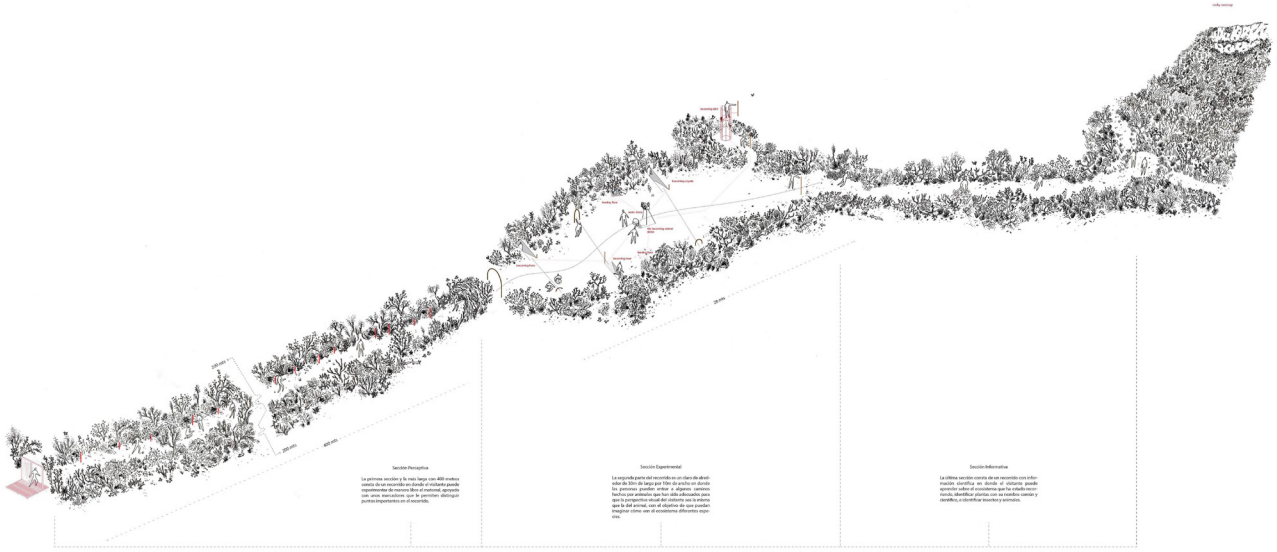
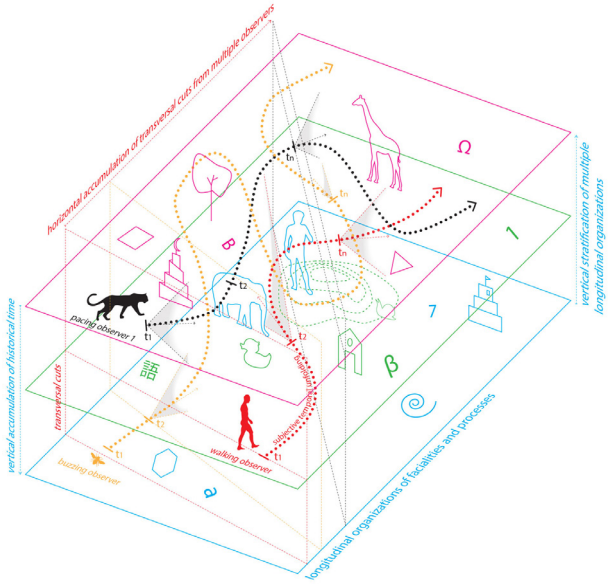


Fig. 16. Pasini Garza Ramos Rosas, Symbiotic Matorral, temporal phases, 2020 (<https://landezine.com/the-symbiotic-matorral-by-pasini-garza-ramos-rosas/>).



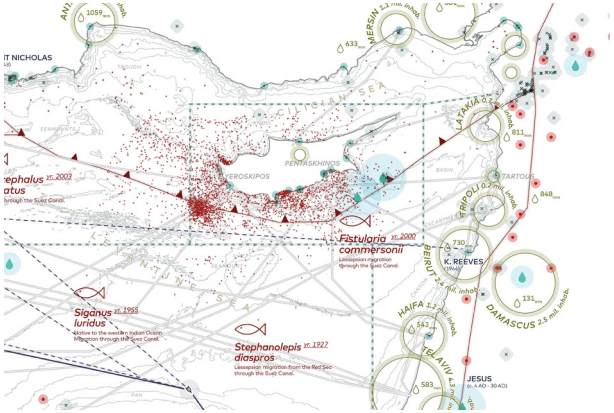


Fig. 17. Pasini Garza Ramos Rosas, Symbiotic Matorral (<https://landezine.com/the-symbiotic-matorral-by-pasini-garza-ramos-rosas/>).

Fig. 18. Openfabric, Migrating Mediterranean, 2023 (<https://www.openfabric.eu/projects/migrating-mediterranean/>).

Therefore, the 'scientific' components enter as constituent elements in the creative and participatory process, by means of refined and innovative methods, not merely 'lending' concepts of an ecological matrix for the construction of compositional metaphors. It is a new species of ecology –simultaneously scientific, social and cultural– that pursues osmosis between architects, citizens and scientists, and that considers participation a generative (not ritual or instrumental) way of working. It is a creative ecology and an ecological creativity [Krasny, Tidball 2015].
From a new inhabiting science can come a new eco-revelatory design [Hester 2006]. These positions have been developed by landscape architects such as Chris Reed and Nina Marie Lister [2014], or Kate Orff [2016], also through the use of new mapping tools and crowd-sourced techniques.
The dynamism of the 'processes' is metabolized definitively in the design project, as in the curated ecologies through which Chris Reed proposes a mode of work in which the designer seeks to support the development of dynamics over time, intervening intermittently to follow the new and ever-changing ecological conditions of the site [Reed 2010; Monacella, Douglas 2016].
Contemporary open ecological models, which are no longer linear, lead to a definitive abandonment of the idea of a return to a previous state (bounce-back, restoration, or rehabilitation) [Lister 2010], an idea that is particularly widespread, especially in the case of the violent transformations related to climate change.
The new maps of global and local problems are synthetic representations of heterogeneous elements with high symbolic value, as in the case of *Migrating Mediterranean* (2022), where Openfabric explores the limits of growth by mapping the geographic implications generated by Western standards of consumption and well-being in terms of movement of goods and people, consumption of primary resources, and ongoing ecosystem transformations in the 'Mediterranean continent'.
Projects experiment with new statutes of co-evolution and climate adaptation through flexible and responsive interventions. Communities become an integral part of urban ecosystems; landscape design is transformed into a dialogic process, based on continuous learning processes [Lister 2010].
The relational genetic imprint of landscape design is further strengthened, thanks to the multiple subjects taken into consideration and a renewed empathy with other living species, as well as by the confidence in design, a stubborn challenge to the massive transformations caused by our own species.

Notes

[1] "The enjoyment of the choicest natural scenes in the country and the means of recreation connected with them is thus a monopoly, in a very peculiar manner, of a very few very rich people. The great mass of society, including those to whom it would be of the greatest benefit, is excluded from it. In the nature of the case private parks can never be used by the mass of the people in any country nor by any considerable number even of the rich, except by the favor of a few, and in dependence on them" [Olmsted 1865, p. 7].

[2] See also: Di Carlo 2015, p. 73.

[3] The term 'open work' used by Umberto Eco comes from the rereading of Roland Barthes and Jacques Derrida's post-structuralism and emphasizes the role of the subjects who interpret the work itself, interpretations that are also profoundly different in relation to the characters and expectations of the subject.

[4] With his project for the Parc de la Deûle, Jaques Simon won the 2006 Grand Prix national du Paysage.

[5] See <http://www.trameverteetbleue.fr/> (accessed 29 November 2024).

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