Time Drawing as a Key Practice for Beginners in Landscape Architecture

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Abstract

The subject matter of the Landscape Expression course for students starting the master's degree in landscape architecture at the Polytechnic University of Catalonia in Barcelona is the dynamic representation of landscape. Its objective is to introduce new students to changing and temporal aspects of the problem of its graphic representation.

In our case, few of the students have previous landscape architecture training. Most of them come from disciplines dealing with spatial development or space, such as architecture or engineering. Others come from fields of knowledge related to biology or the environment and are not used to design and the need to graphically communicate that it implies. The course confronts students with the contradiction between landscape – diverse and dynamic – and our flat and static representations.

Keywords

Landscape architecture, Drawing, Time, Change, Difference

DOI

https://doi.org/10.47982/spool.2022.3.02

Introduction

Difference which occurs across time is what we call "change" (Bateson, 1987, p. 458)

The problem is seemingly simple: what makes the difference? Landscape architecture shares with other disciplines the need to describe the spatial configuration and the material construction of space or in space. What then makes it different?

From the beginning of their studies, students are required to represent the landscape in design studios and in other subjects. However, the Landscape Expression course does not aim to achieve a specific skill. Contrary to what happens in other courses, here the representation does not stand in for the landscape. The course aims to explore and make explicit what differentiates landscape architecture. It does not matter that dynamic representation is rarely evident in professional practice (Dooren, 2017, p. 233).

According to the development that Gregory Bateson (1987, p. 455) made of Alfred Korzybski's well-known statement, "The map is not the territory", what passes from land onto the map, its representation, is a difference. Bateson talks about "news of differences". As he points out, a difference in any language is significant because it provides information. It references a change (Bateson, 1987, p. 358). Korzybski's example and Bateson's development are concerned with the fact that language frames, and therefore limits, our capacity for expression and ultimately for thought.

If the graphic representation is our language, drawing time – the ability to deal with the dynamics of the landscape – would be a limit on landscape architecture design. It is, therefore, a statement: working with time is our particularity. It is what makes us different and powerful. And our ability to represent time is the limit on our ability to make design proposals. Without time our drawings are nothing more than green smoke, a fading illusion we cannot foresee.

The course consists of a series of short exercises of increasing difficulty that introduce the problem in a limited way. In the first, students must select or create an image that implicitly incorporates change or movement. The photographs documenting Eliasson's *Ice Watch* (2014) outside the Tate Modern and the "sailing stones" of Death Valley at Racetrack Playa (Lorenz, R. D. et al., 2014) are simple examples from art and the natural world. What makes these examples clear is that time is physically manifested. We can watch it in the slow, drip by drip melting of a massive, bizarrely located, blue block of ice. Or in the conspicuous trace of the stone on the sand, tracking its past displacement.

One of the surprises of the initial exercise is that, on the one hand, there are few situations in which we can show time as a crystal-clear factor in the description of the world. On the other, however, it is always implicitly present. We translate everything we observe into what we seek. To this we add the difficulty that, as with space (Casey, 1997), being out of time is inconceivable. So, any image, all of them, allows you to glimpse time.

A second exercise introduces students to those disciplines that have made temporal graphic expression their medium. The storyboards in cinema (Moure, 2004, p. 505) and comics (Goscinny & Uderzo, 1971) are the immediate references. The timing of the creation and delivery of "Le Garage Hermétique" (Moebius, 1979) or music scores and their translation into space by dance (Tufte, 1990, pp. 114-119) are another. Music is, perhaps, the only human creation that incorporates time into its conception and perception without generating doubts. To the outsider, the musical notation – the score – may seem traditional, regulated and closed. *Notations*, a seemingly simple collection of music charts by John Cage (1969), shows the opposite. Cage's example is revealing in our case. In his music, the leap from the temporal to the spatial for composition and notation is outstanding. And likewise, from the spatial to the temporal, in his graphic work.

In the third and final exercise, students must document a complex and dynamic landscape process and make it visible graphically. The process is explained in class, as the students do not yet have enough experience or knowledge of this. In addition to scientific and technical literature relating to the study case, we begin with graphic examples based as closely as possible on the students' previous studies.

As a reference from biology and ecology, we show the work of Francis Hallé (2016). Hallé's evocative drawings are as rigorous and beautiful as an essential tool for deploying knowledge of a very complex reality. From landscape architecture, a recurring example is the naturalization of the Aire River, south of Geneva. The drawings by Georges Descombes and Atelier Descombes & Rampini are revealing. The initial drawing, resembling a chocolate bar, is cryptic and indecipherable (Besse, 2016). The plan does not represent, as usual, the finished proposal but the initial conditions that will make it possible to start the process by which the river itself will trace its new riverbed. The implicit but indecipherable time of the first drawing is explicit and evident in the series of computer drawings documenting the work process (Besse, 2016). Another significant aspect of the project is that it does not erase the old canal. It makes it possible to read the landscape before and after the intervention.

In the final exercise the drawings are the work of students working in pairs. From the outset of the course, the level of expression is not as important as the possibility of creating a work environment, a learning ecology (Frost, 2009), in which to discuss and jointly propose solutions to the problem. The diversity of previous training ceases to be a problem, becoming instead an advantage that balances the prior unfamiliarity of some students.

To conclude, using different graphic resources, series and hypotheses of change over time to illustrate landscape processes and dynamics becomes quite normal in the master design studios after the initial semester. We start by focusing on the representation of time and change, hoping to be able to design with them in the future.

FIGURE 1

Rotting lettuce over three weeks.

Black pen on plain paper and watercolour on tracing paper. Original 10xDIN A4. To simplify the relationships to be explained, we start from complex but repetitive cases of stable and undisturbed cycles or processes. Students represent, for example, a rotting lettuce over two or three weeks, drawing it for half an hour every two or three days on plain paper with a regular pen. As in any classic sketch from natural models, the exercise is not so much about drawing as learning to look. Students learn to focus, identify and show the gradual changes using series as a natural and intuitive representation of a temporal phenomenon. To throw light on our interest in documenting the passage of time through a simple lettuce, we use an opposite example. Quince, Cabbage, Melon, and Cucumber (c. 1602) by Juan Sánchez Cotán, is an astonishing display of pictorial technique. Part of its appeal lies in contrast between the vegetables, like sculptures, and what we know will happen. In our second exercise, we gaze at time passing. Laura overlapped watercolour on tracing paper in the first and the final drawings, adding colour change to open and close the series.

(Drawings by Laura Rodriguez Calzada, MBLandArch, 2018)

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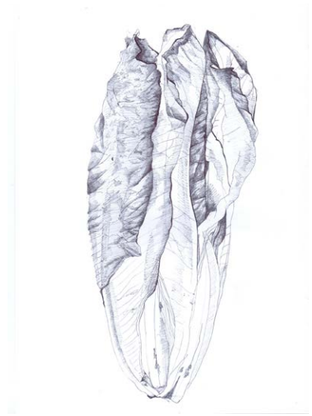

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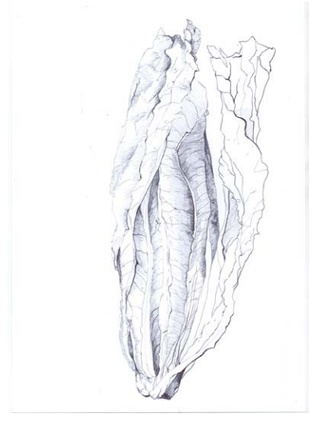

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FIGURE 2

Growth and displacement of a grove of white poplar trees.

Colour pencil on paper. Original 100x70 cm. The drawing shows the decline and rebirth of the group under study from 1994, in violet, to 2020, in pale orange. It is a particular group of trees. The new forest has spontaneously occupied an old building materials stockpile abandoned after the campus construction twenty years ago, and the margins of a more recently created new pond. On the built-up edge of one of the campus entrances, Populus alba shoots struggle to grow among seventy oddly aligned units of concrete New Jersey median barriers. Each one weighs up to half a tonne. Thus, the evolution of the forest is not only about plant succession or its deformations due to the particular conditions of orientation, light, soil or available water, and occasional disturbances such as frequent easterly storms. It is also about the slow displacement of the barriers and the power of nature. Students document a forest's evolution along with a ruin, a new monument (Smithson, 1967) that can also show the changes in our attitude and relationships towards our work and the environment.

(Drawing by Paulina Suescun and Eliana Vergara, MBLandArch, 2021)

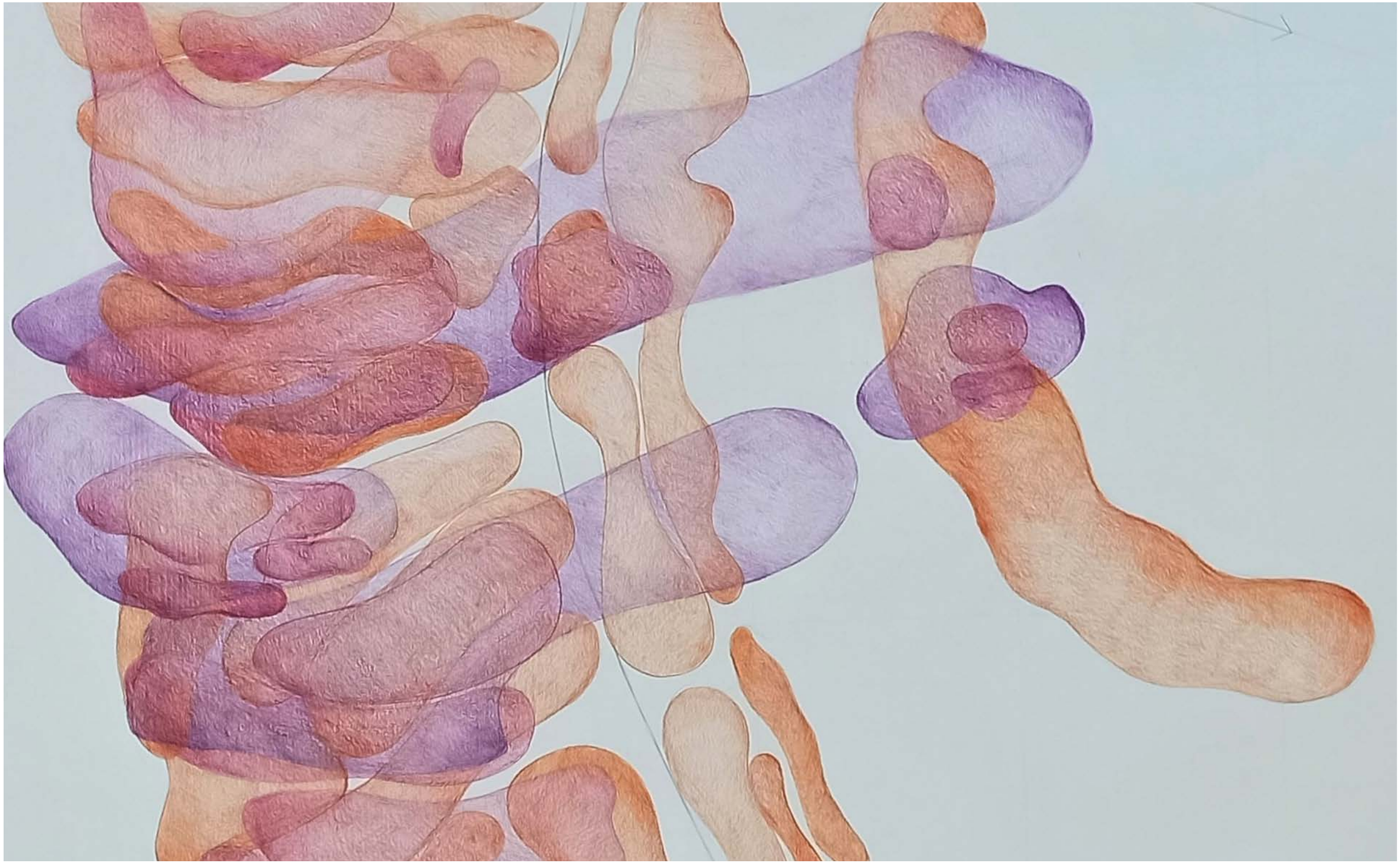


FIGURE 3

White Poplars and New Jersey barriers at the CBL-UPC Campus of Castelldefels.

Ink on tracing paper, 100x70 cm, and computer drawings. In the final assignment, the initial conclusion – we can always track time everywhere – arises as a problem. The beautiful view representing a shot of the tangle of relationships between young white poplars and the concrete barriers seeks to recall those images of Angkor Wat in which trees grow over the ruins making time visible. However, the time lapse is too short to be effective. The drawing can hold the explanation but it is no longer evident or clear.

(Drawing by Vivian Rotie, MBLandArch, 2019)

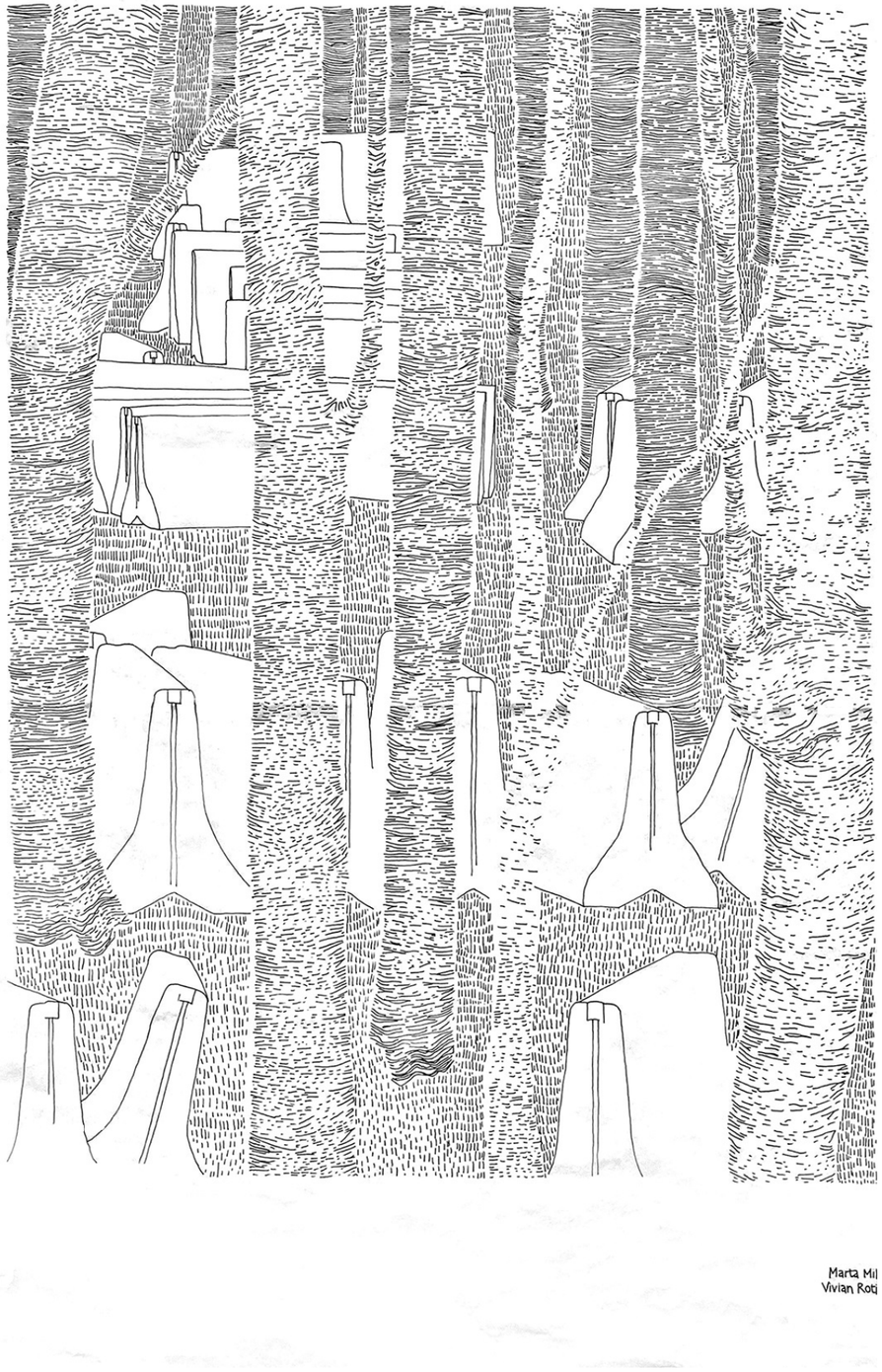


FIGURE 4

Field trips, dimensions and tree typologies.

The cartography represents the current state of the final stretch of the grove consisting of 48 white poplars and 71 New Jersey concrete barriers. The plan locates all existing elements delimiting the relation between them, their dimensions, heights and growth inclination. The horizontal sections show, at a scale of 1:3, the eight most representative trees to explain the progress of the set, overlapping horizontal cuts every 90 cm of height, which is the maximum height of the concrete barriers.

(Computer drawing by Marta Milà and Vivian Rotie, MBLandArch, 2019)

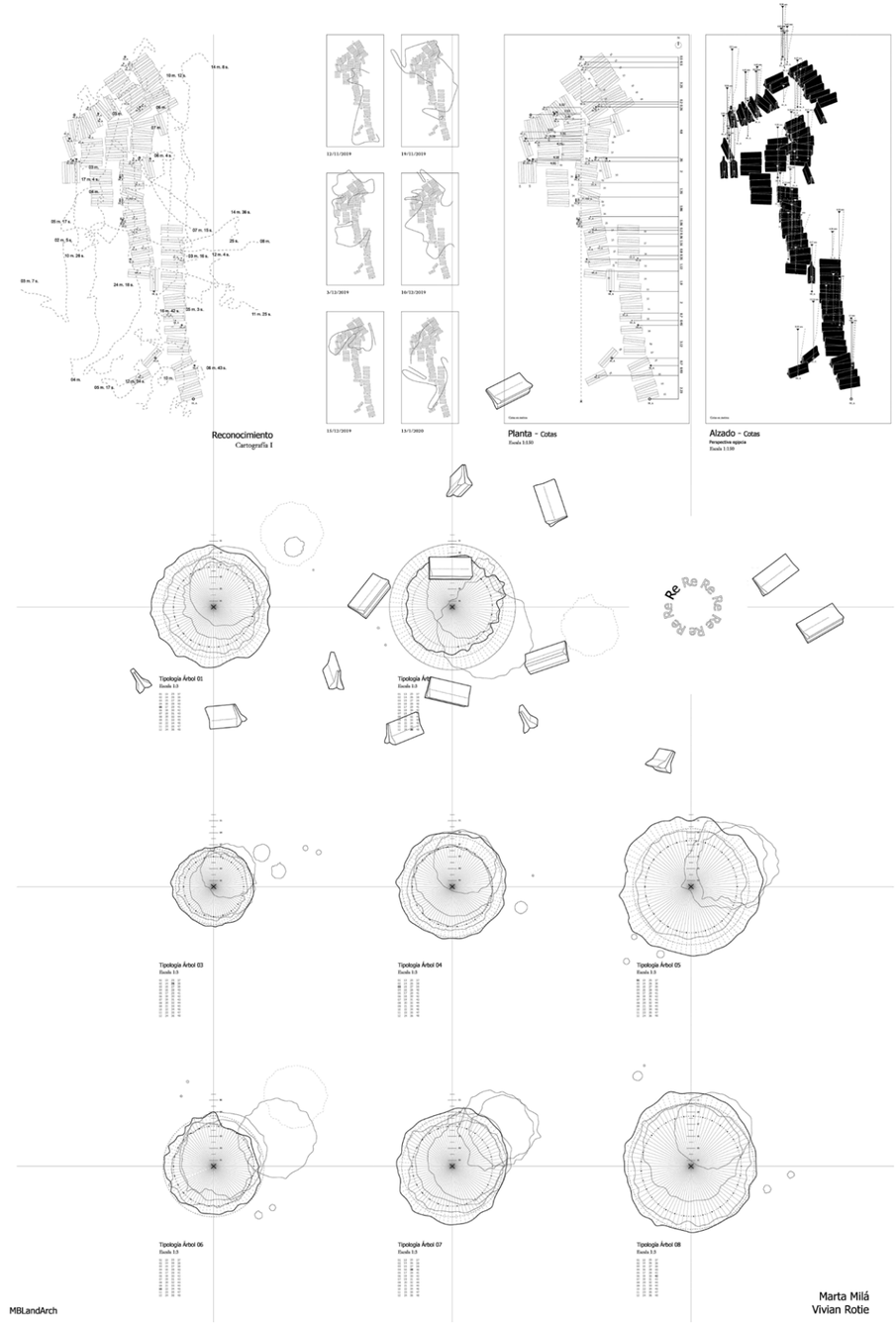


FIGURE 5

Position plan, tree catalogue and growth elevations and factors.

A second panel locates the selected trees and shows the growth and direction of each tree in elevations – at upper right end of the drawing – using the previous horizontal cuts.

(Computer drawing by Marta Milà and Vivian Rotie, MBLandArch, 2019)

FIGURE 6

Trees and barrier positions, species, canopy, trunk size, and horizontal displacement.

The drawing represents the stretch of forest on the site of the building stockpile. The diameter of the trunks and the size of the canopy show the age and growth of the trees. The colour differentiates species. Arrows indicate the inclination of the trees as they grow in search of light. The angle of inclination of the trees coincides with the growth direction of the set. Only heavy barriers occasionally disrupt the general trend. As in the two previous figures, we can track and explain time through the drawing by relating size, inclination and position to the ongoing expansion of the set.

(Computer drawing by Carla Compte and Carla Coromina, MBLandArch, 2019)

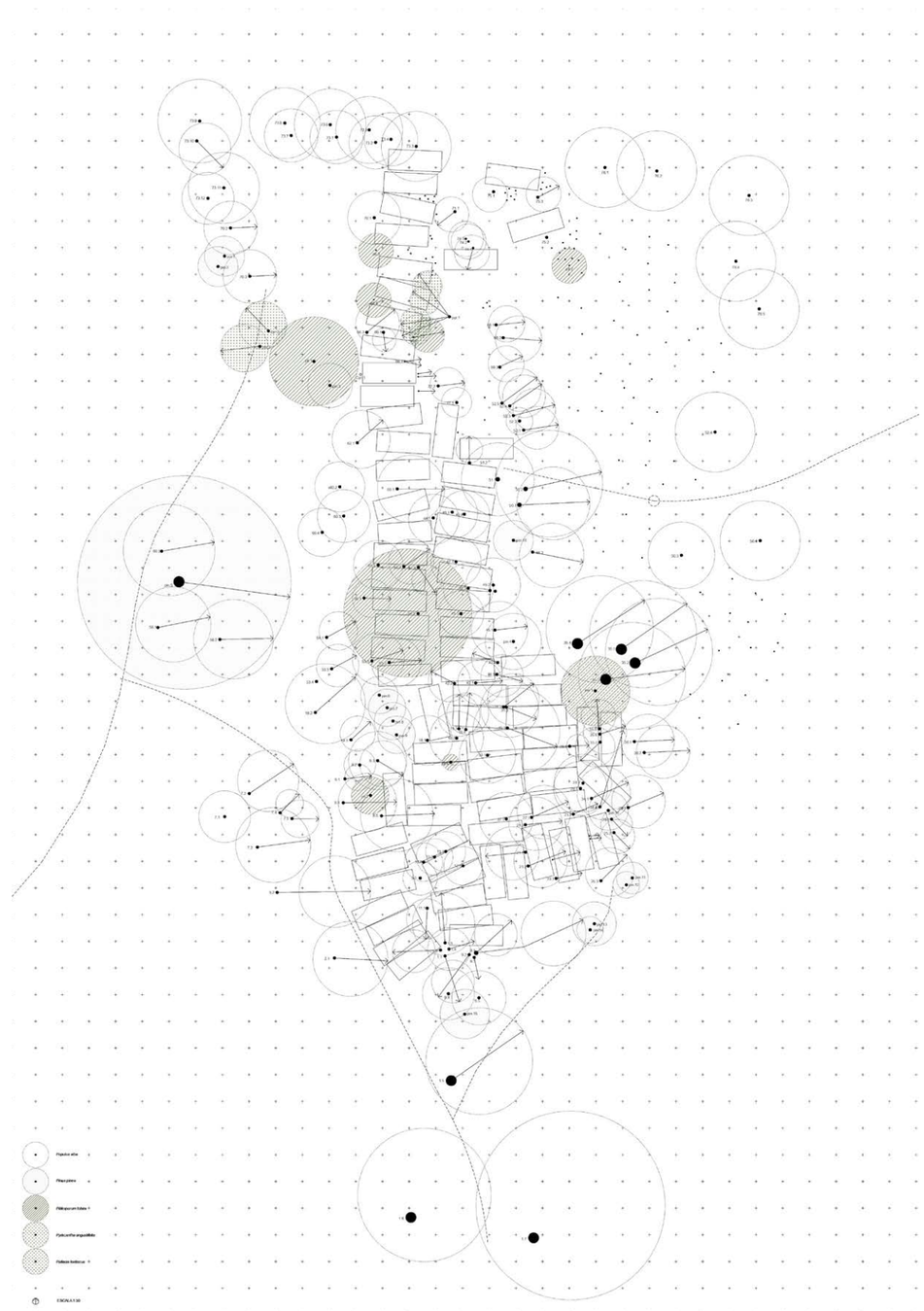
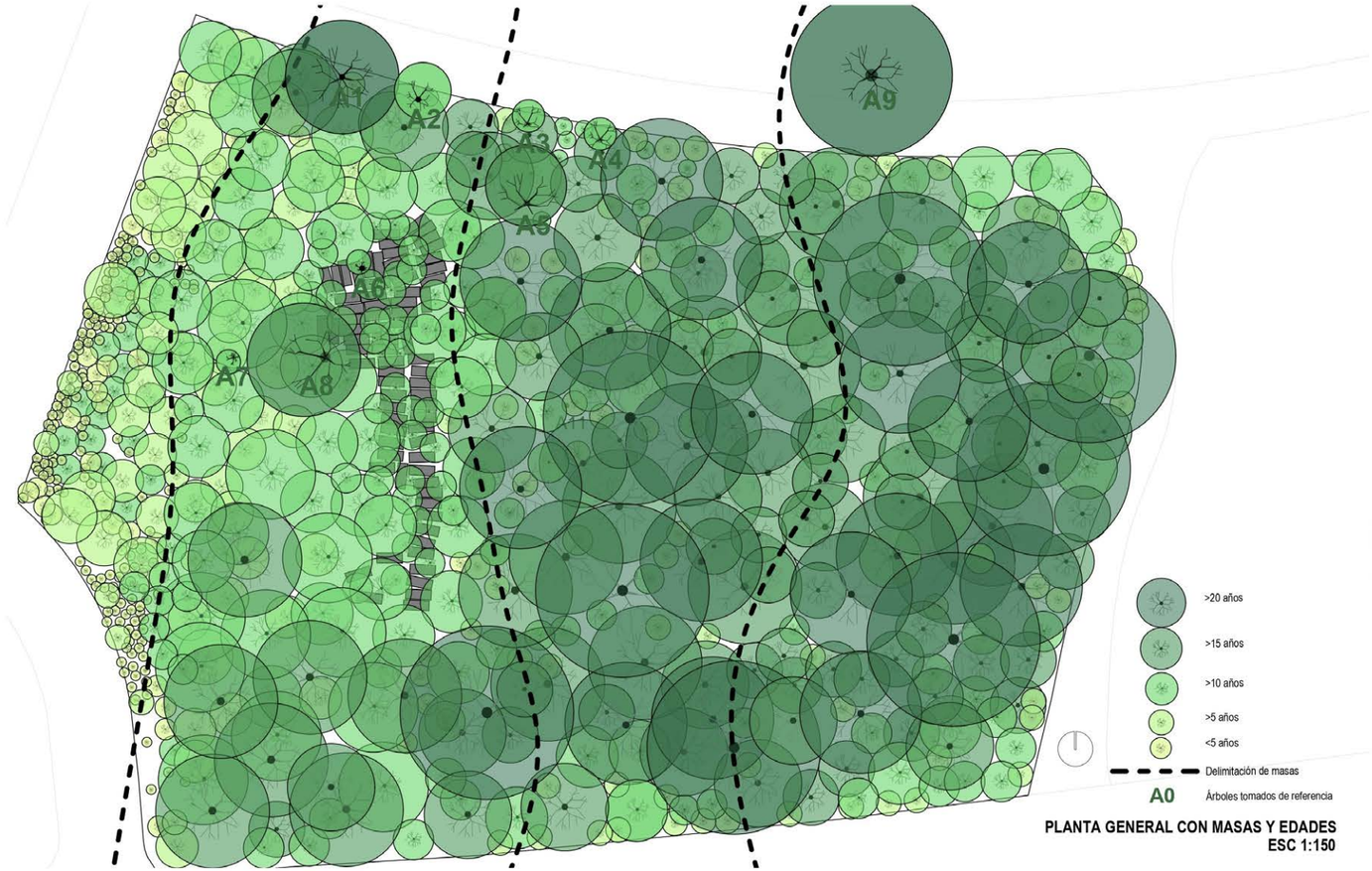


FIGURE 7

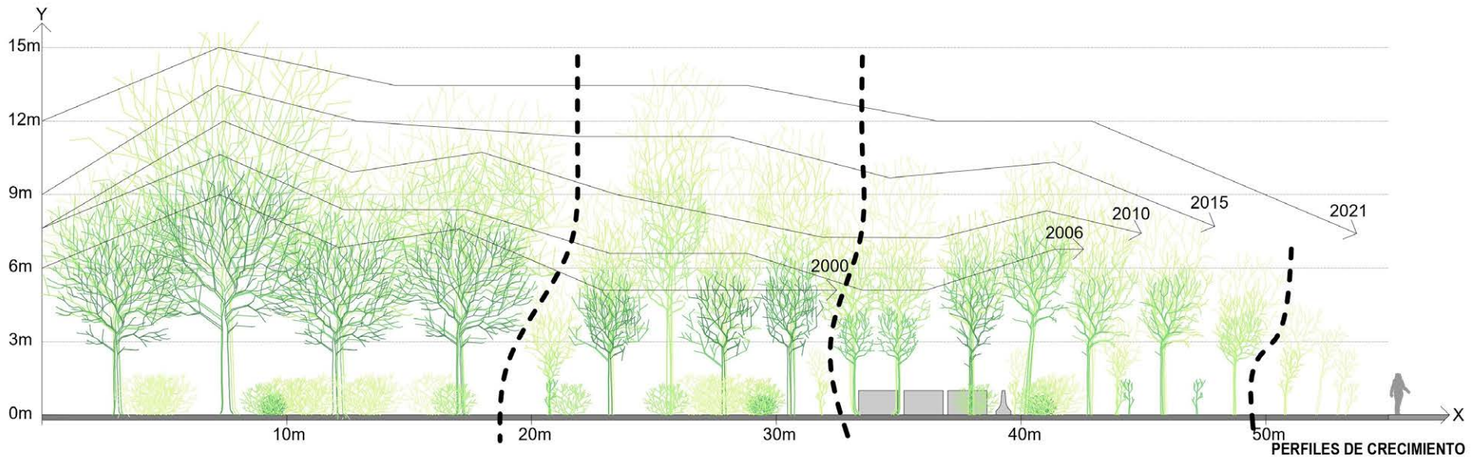
Canopy mass dynamics

Part of the problem lay in focusing on the stockpile. The plan shows the development of the whole forest, from the original plantation, on the right, to the new urbanization, on the left. The size of the trunks, their canopy and their colour reflect the age of the trees. At the bottom, the section represents the growth profiles and draws an expansion hypothesis through families or groups of closer trunks. The complexity of the whole set and the overlapping criteria conceal time, once again. As in all previous examples, the drawings are clean and sharp but do not show time clearly. We can infer time, but we cannot see it.

(Computer drawing by Juan David Castillo and Eftychia Zochiou, MBLandArch, 2021).

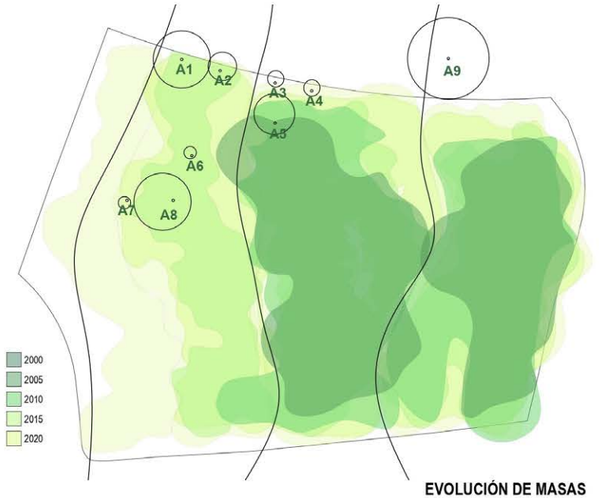


PLANTA GENERAL CON MASAS Y EDADES
ESC 1:150

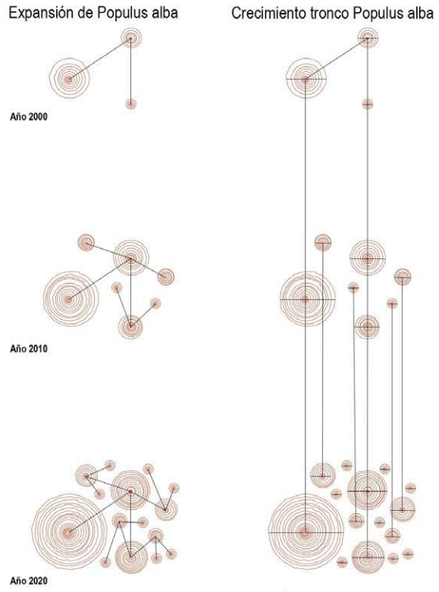


PERFILES DE CRECIMIENTO
ESC 1:100

Juan David Castillo
Eftychia Zochiou



EVOLUCIÓN DE MASAS
ESC 1:300



DINÁMICA DE TRONCOS
ESC 1:50

FIGURE 8

Canopy mass dynamics

Part of the problem lay in focusing on the stockpile. The plan shows the development of the whole forest, from the original plantation, on the right, to the new urbanization, on the left. The size of the trunks, their canopy and their colour reflect the age of the trees. At the bottom, the section represents the growth profiles and draws an expansion hypothesis through families or groups of closer trunks. The complexity of the whole set and the overlapping criteria conceal time, once again. As in all previous examples, the drawings are clean and sharp but do not show time clearly. We can infer time, but we cannot see it.

(Computer drawing by Juan David Castillo and Eftychia Zochiou, MBLandArch, 2021).

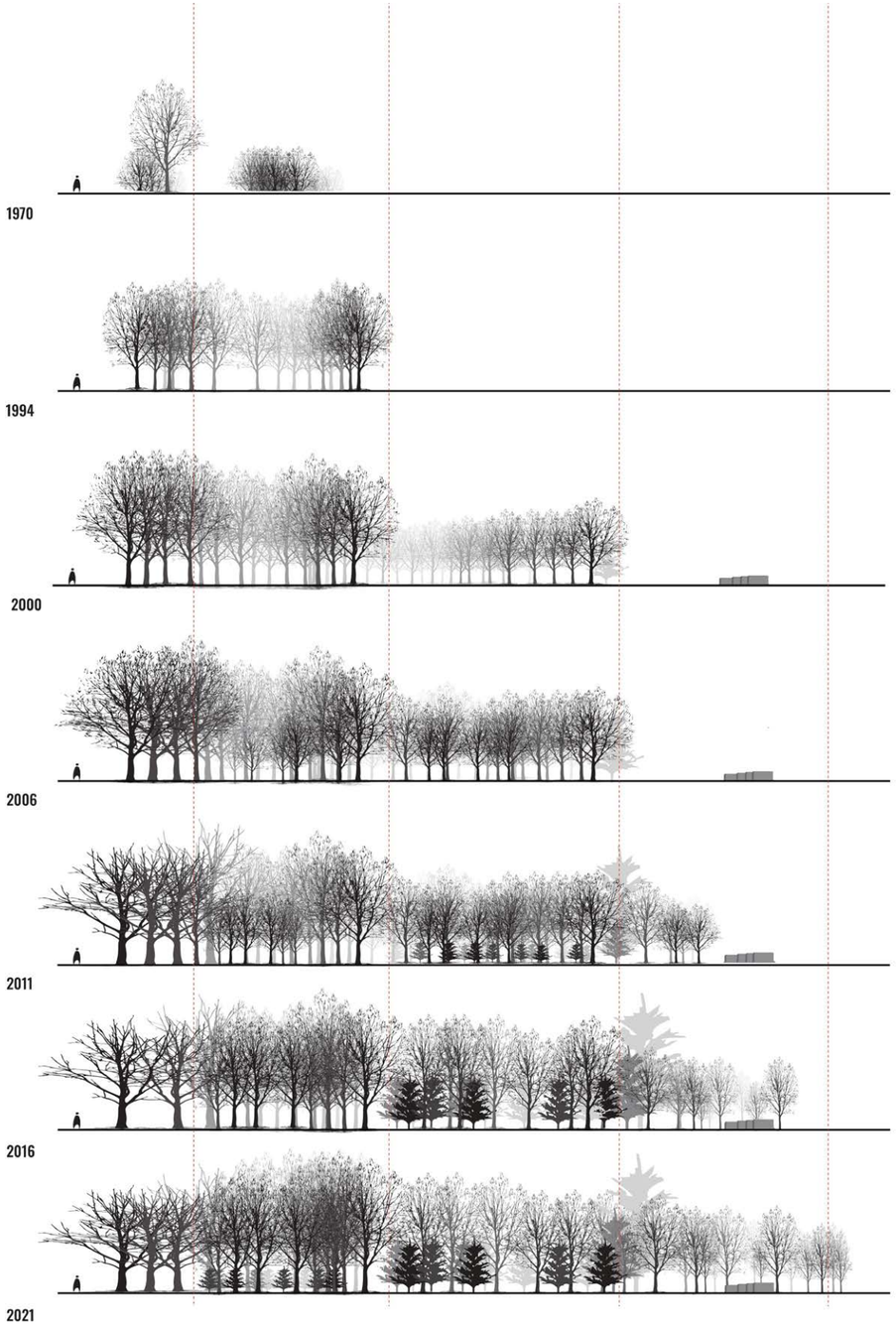


FIGURE 9

Five growth sequences over time.

In contrast to the previous image, reading top-down, from old to new, the order reproduces the analysis process to understand the evolution of the forest. The oldest trees are the first. The authors avoid the complexity of representing the whole set by selecting five meaningful sections that correspond to five fronts on which the trees have prospered significantly. In each cross-section, the plan and the elevation show the current state of the vegetation. This makes it possible to show the dynamics of growth among close trees, and from one to another section in time. On the left, the plan indicates the groups and the trees that compose them.

(Computer drawing by Maria Rogojina, Beatriz Saladich and Giuseppina Verduci, MBLandArch, 2021)

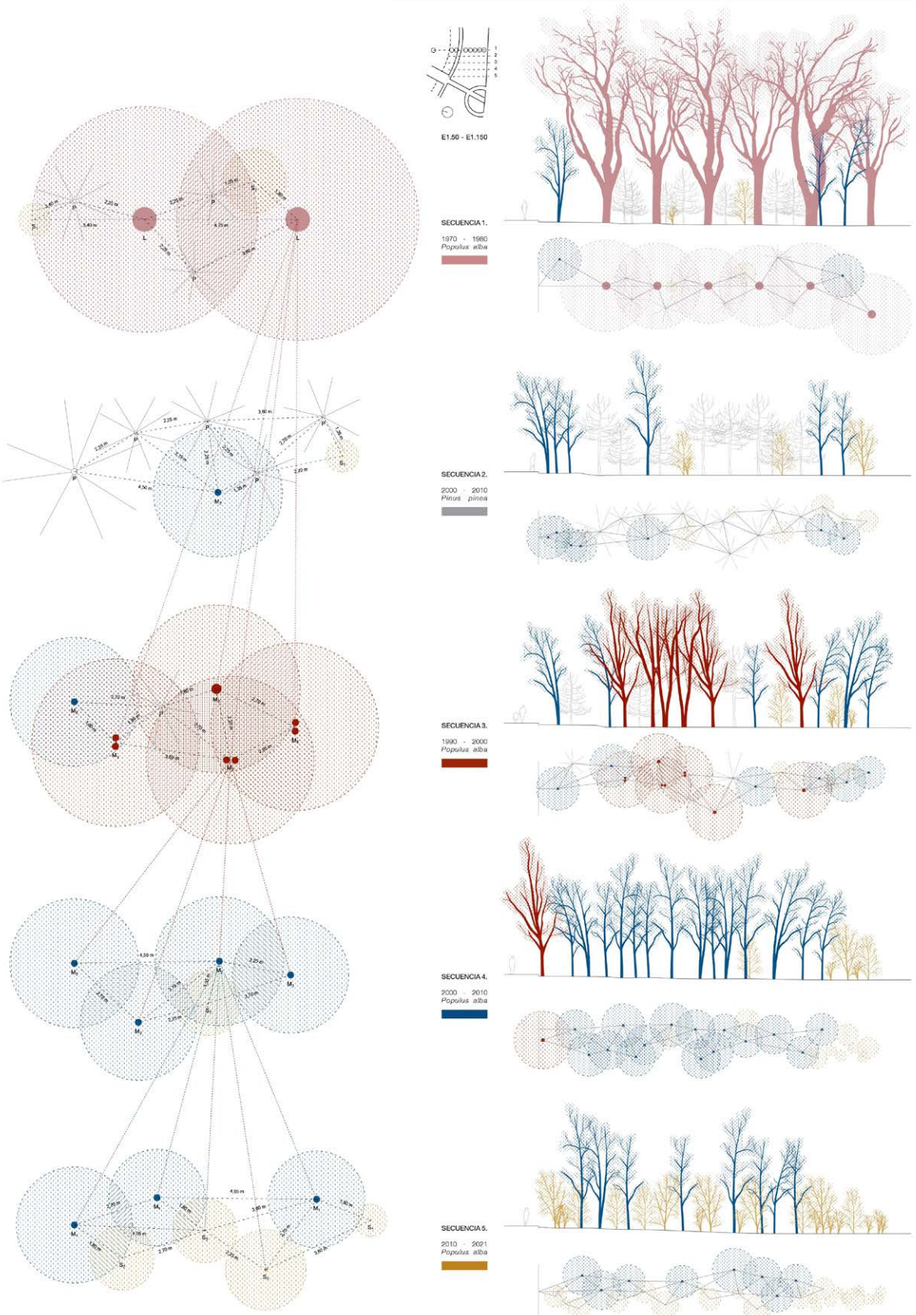
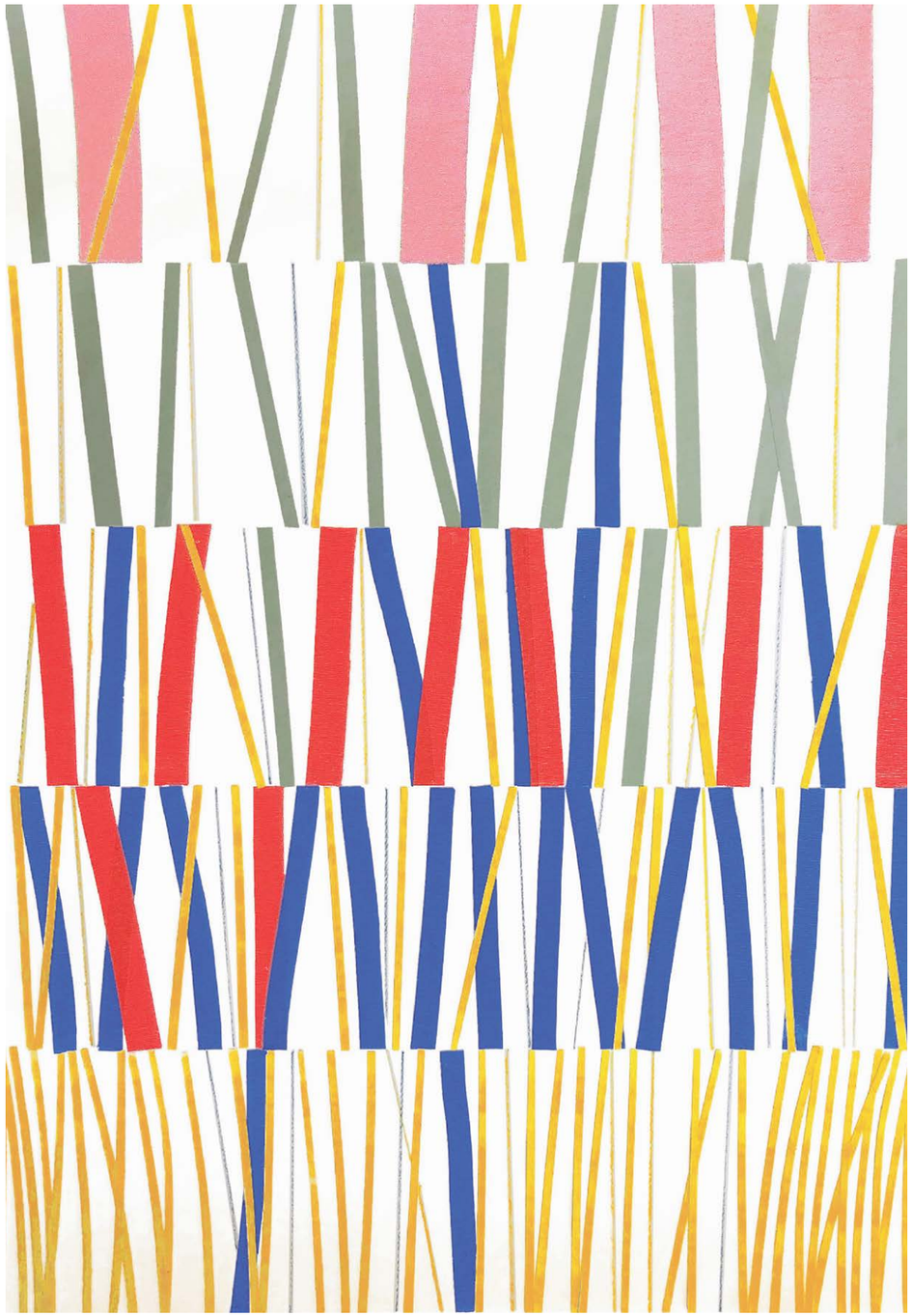


FIGURE 10

Back to the forest.

Colour and tissue paper and colour pencil on cardboard. Original DIN A1. The composition tries to restore a simple vision of the forestry mass over time. As a counterpoint, the colours of the previous plans and sections constitute a simplified image of the forest. The collage seeks to evoke the tangle of relationships over time when observing any stretch of the grove.

(Collage by Maria Rogojina, Beatriz Saladich and Giuseppina Verduci, MBLandArch, 2021)



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