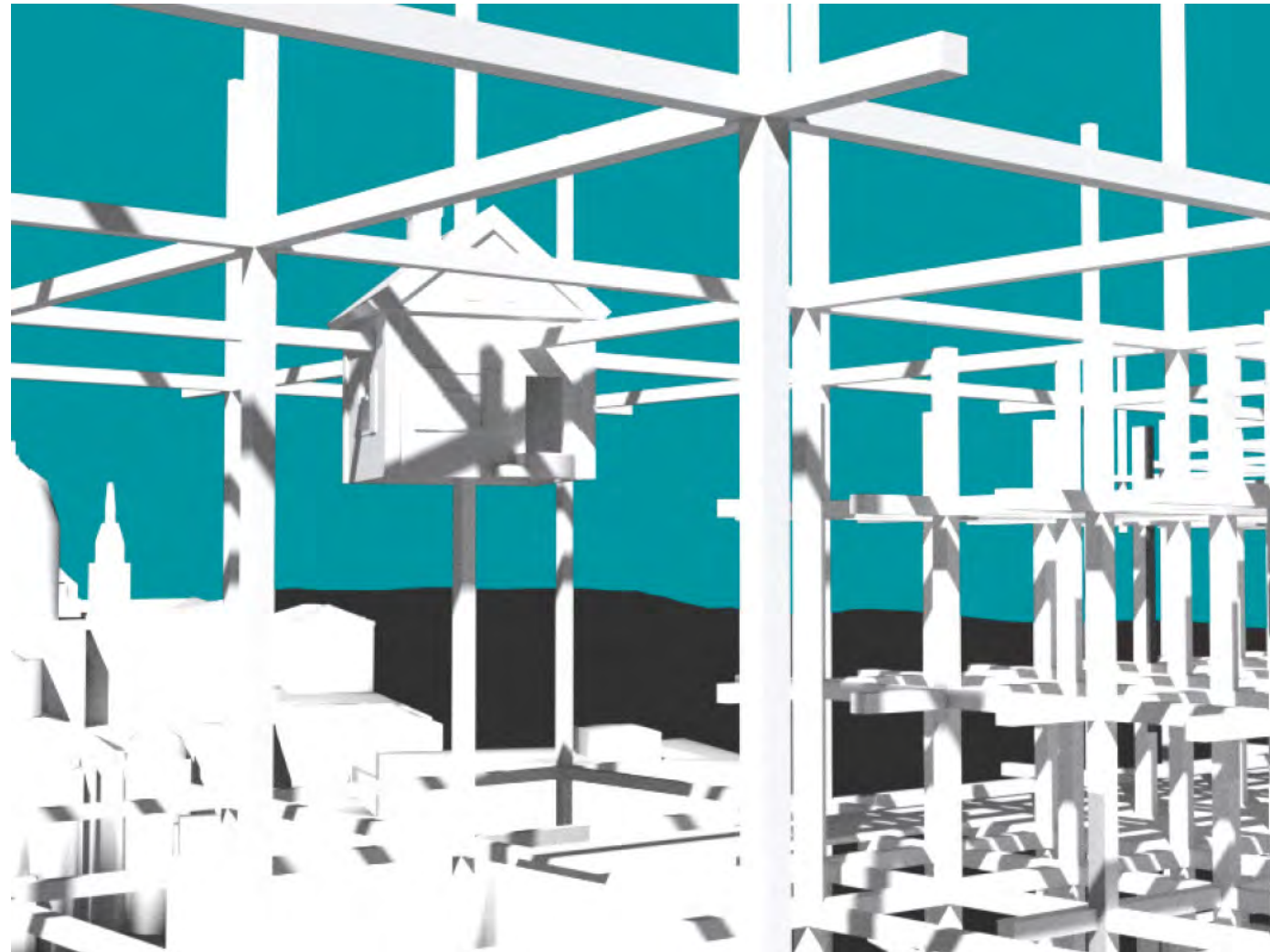




Sumario

Contexto \ el sitio **3**

Respuesta \ desarrollo **8**

La red \ infraestructura **15**

Forma \ el red lleno **22**

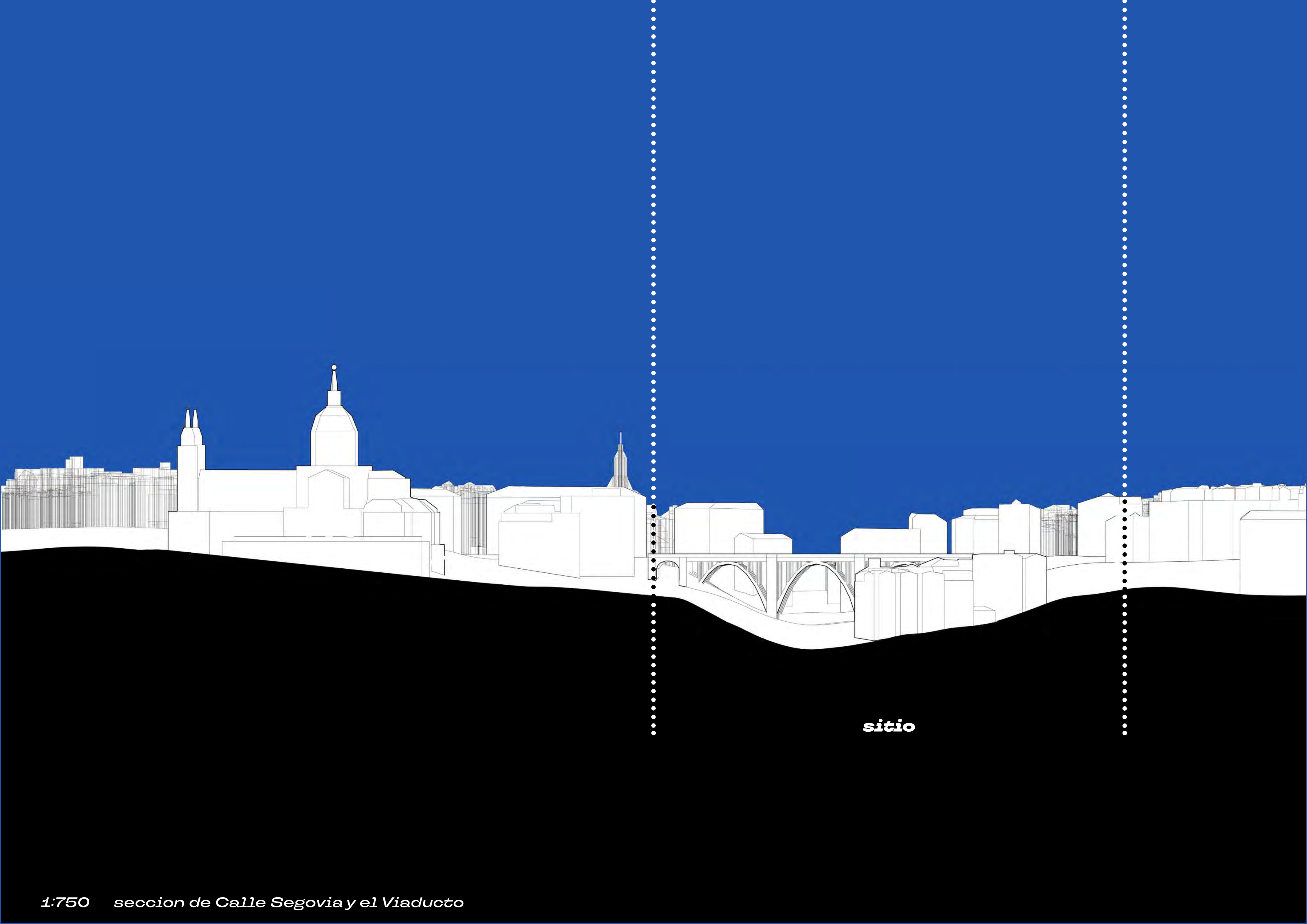
Detalles \ tipologías **29**

experiencia - zine **39**

Crecimiento\el futuro **40**

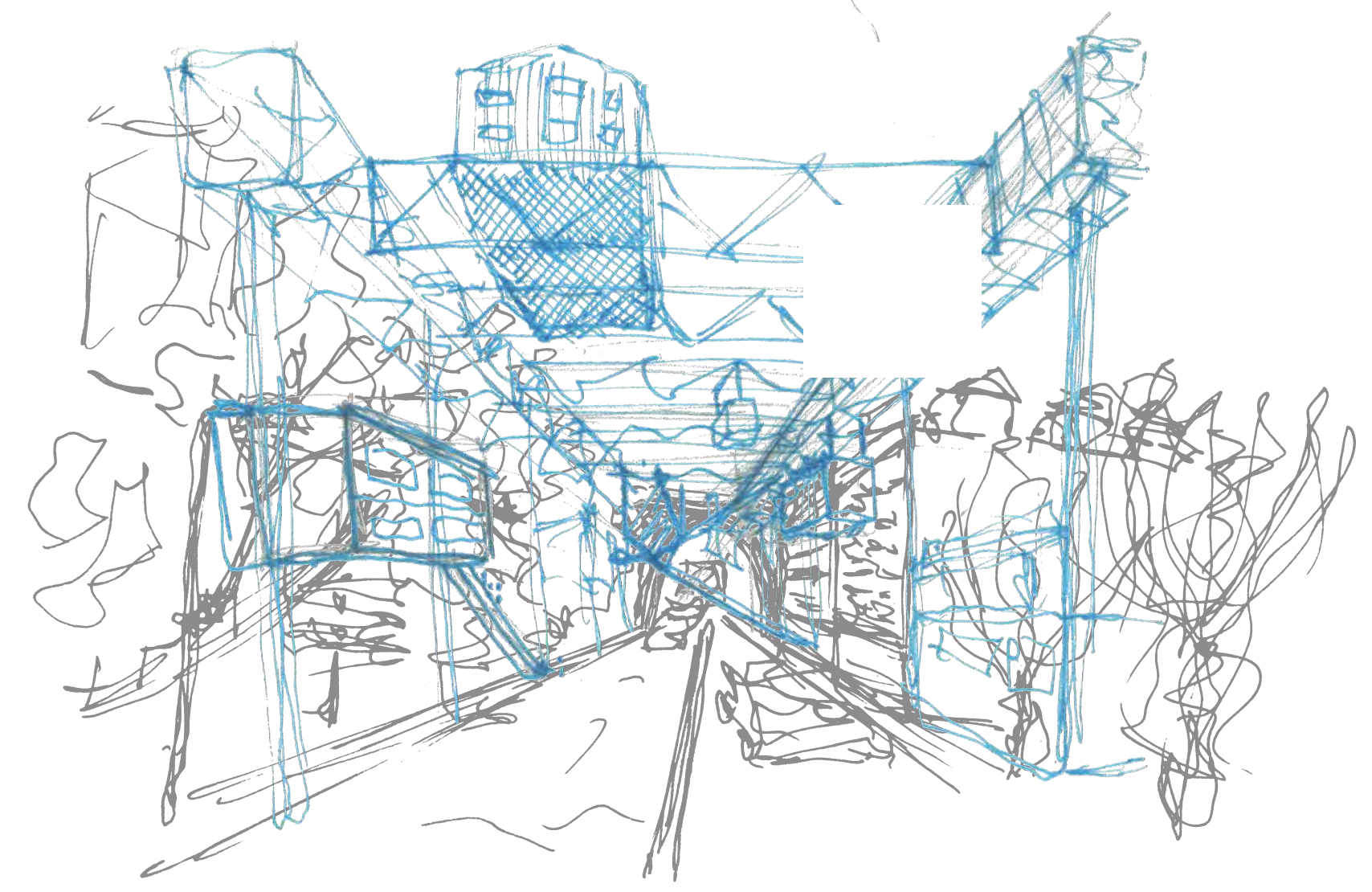
bibliografía **47**

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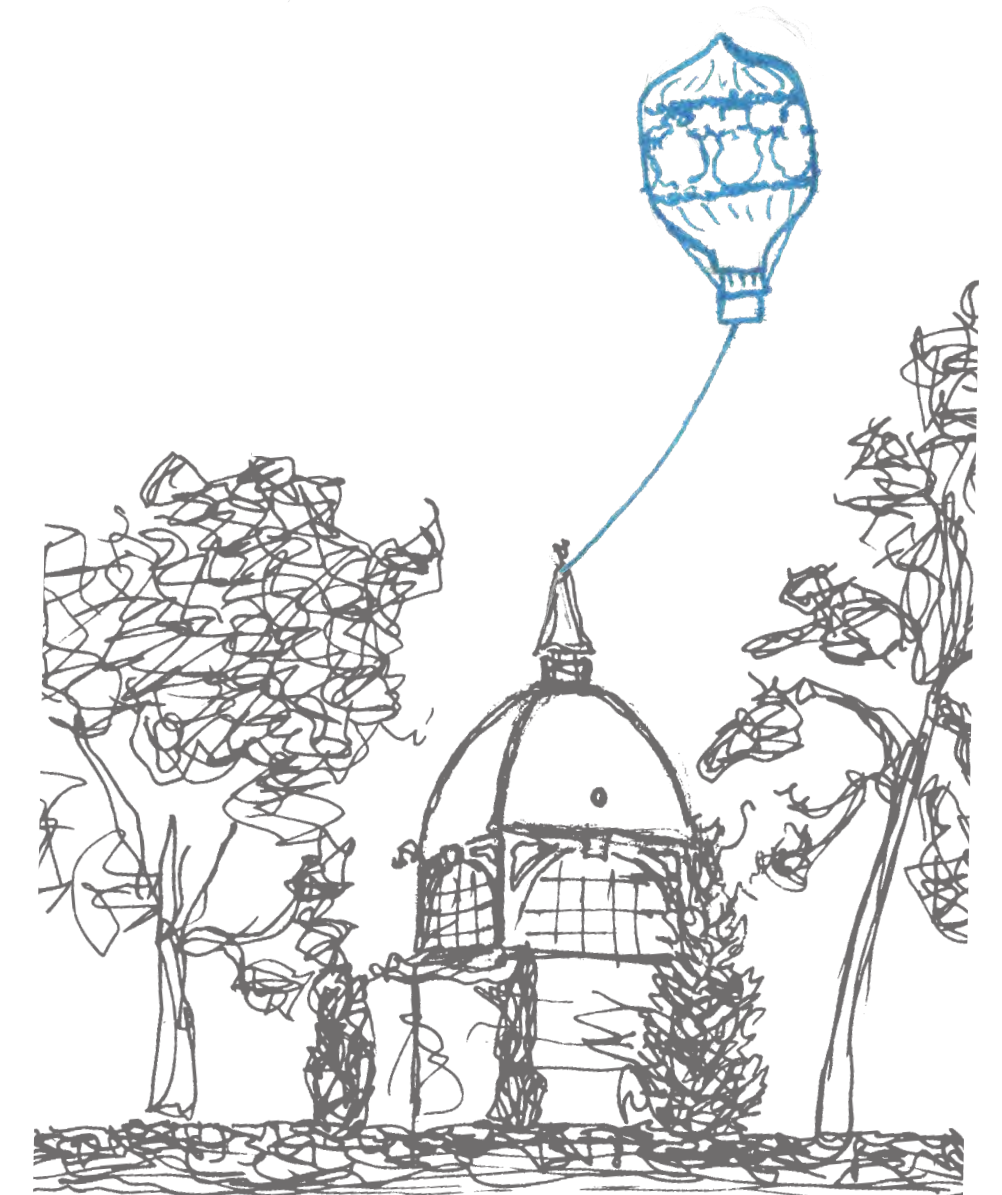
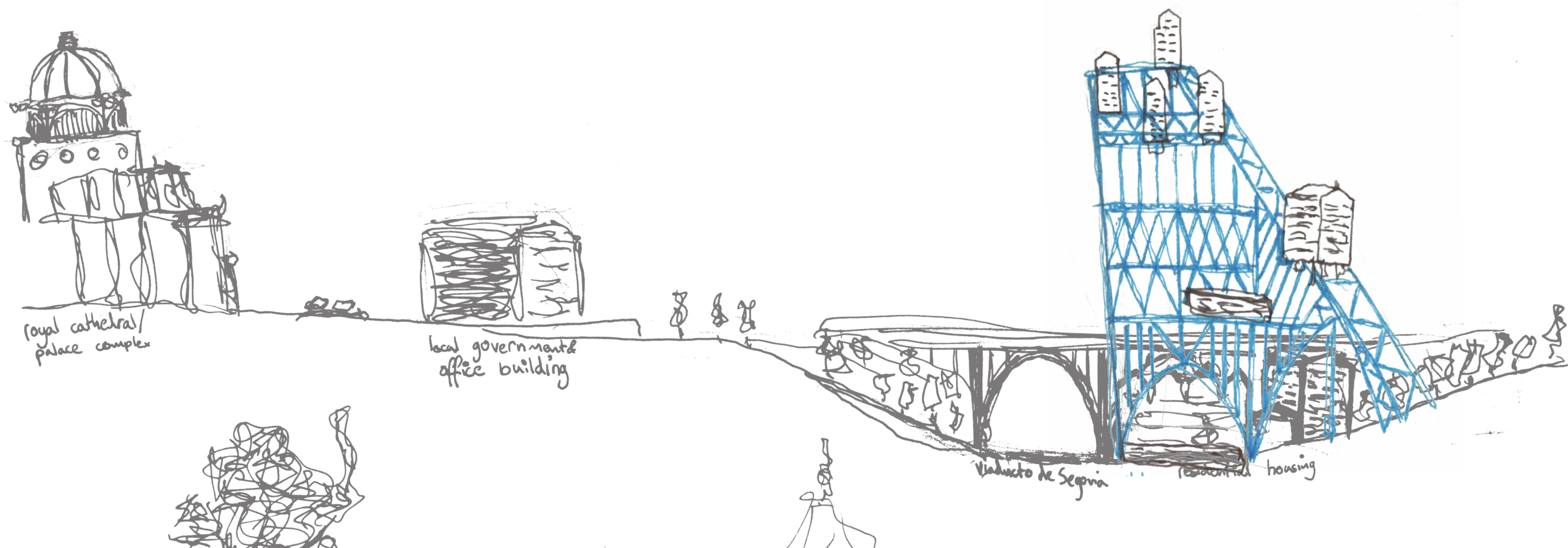
sitio





*hay una tensión
entre las viviendas y los edificios
reales del estado*

OBSERVACIONES **SUBVERSIONES**

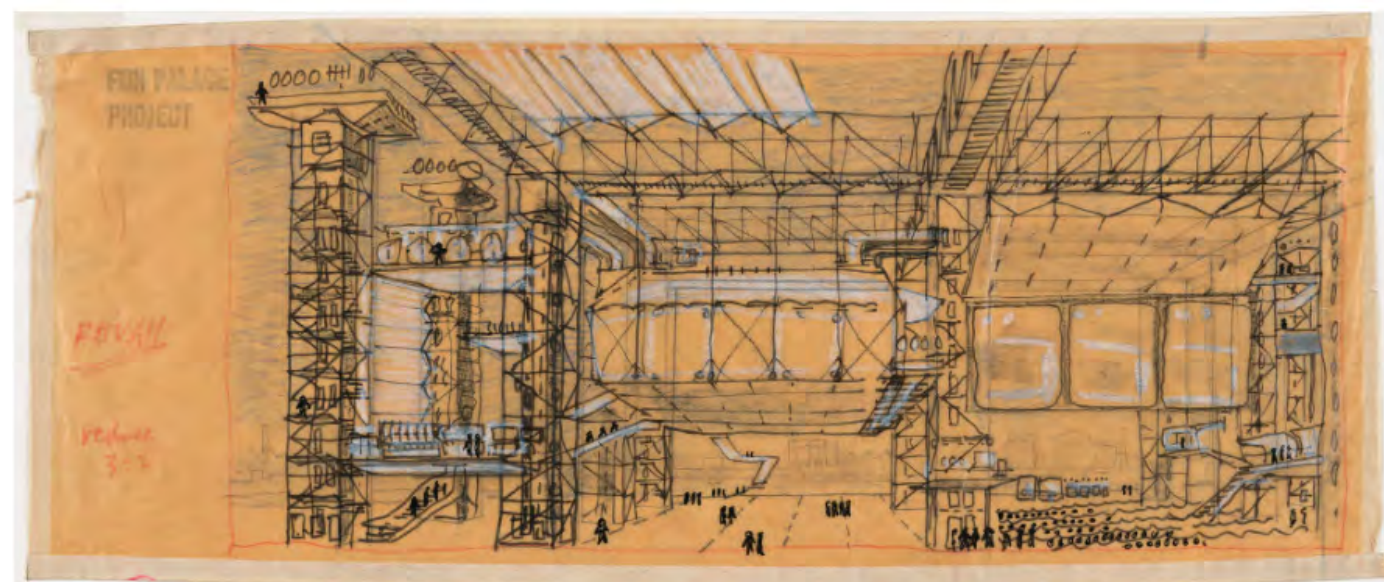
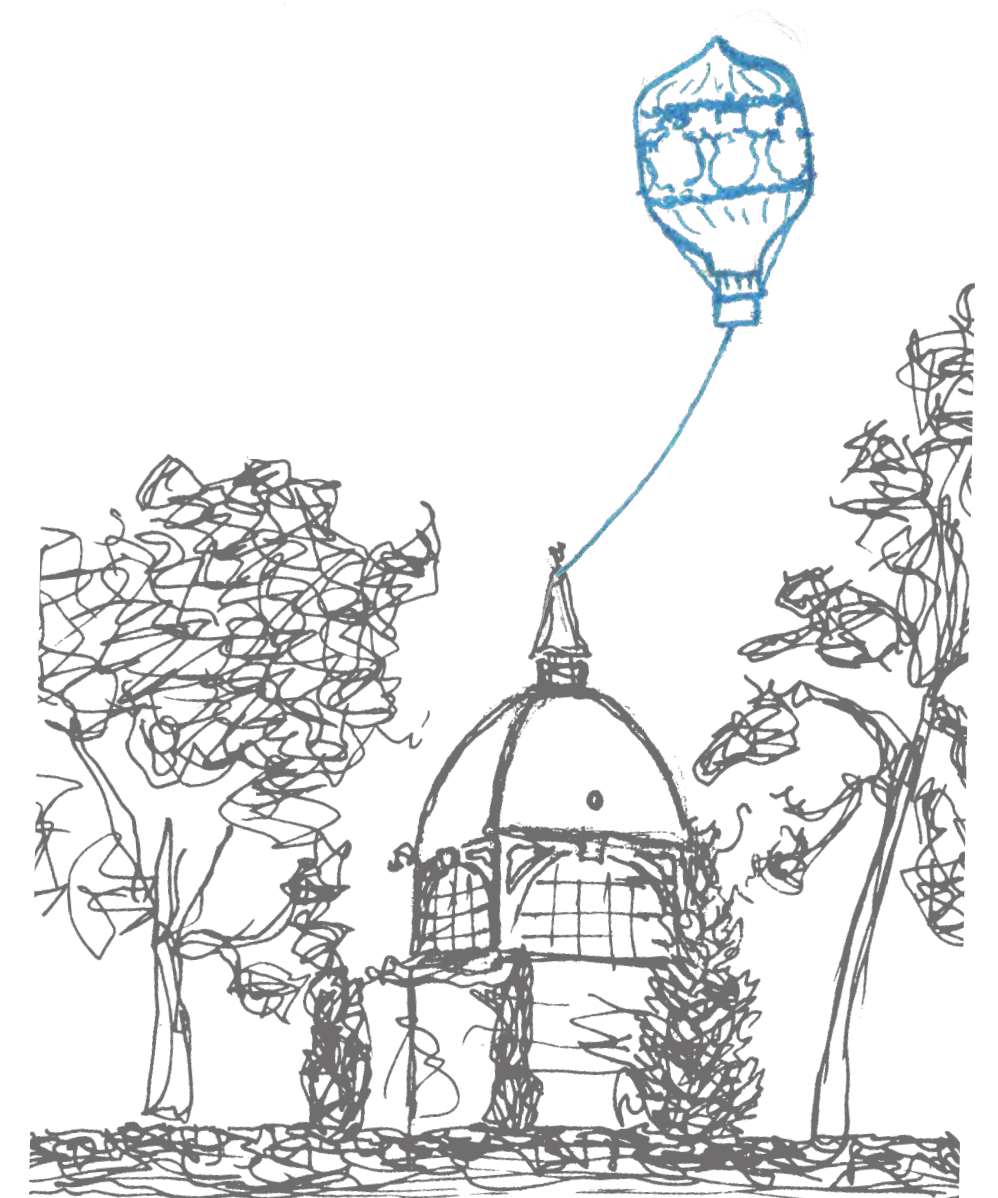


¿Cómo puede una forma construida en el aire subvertir las relaciones en el suelo?

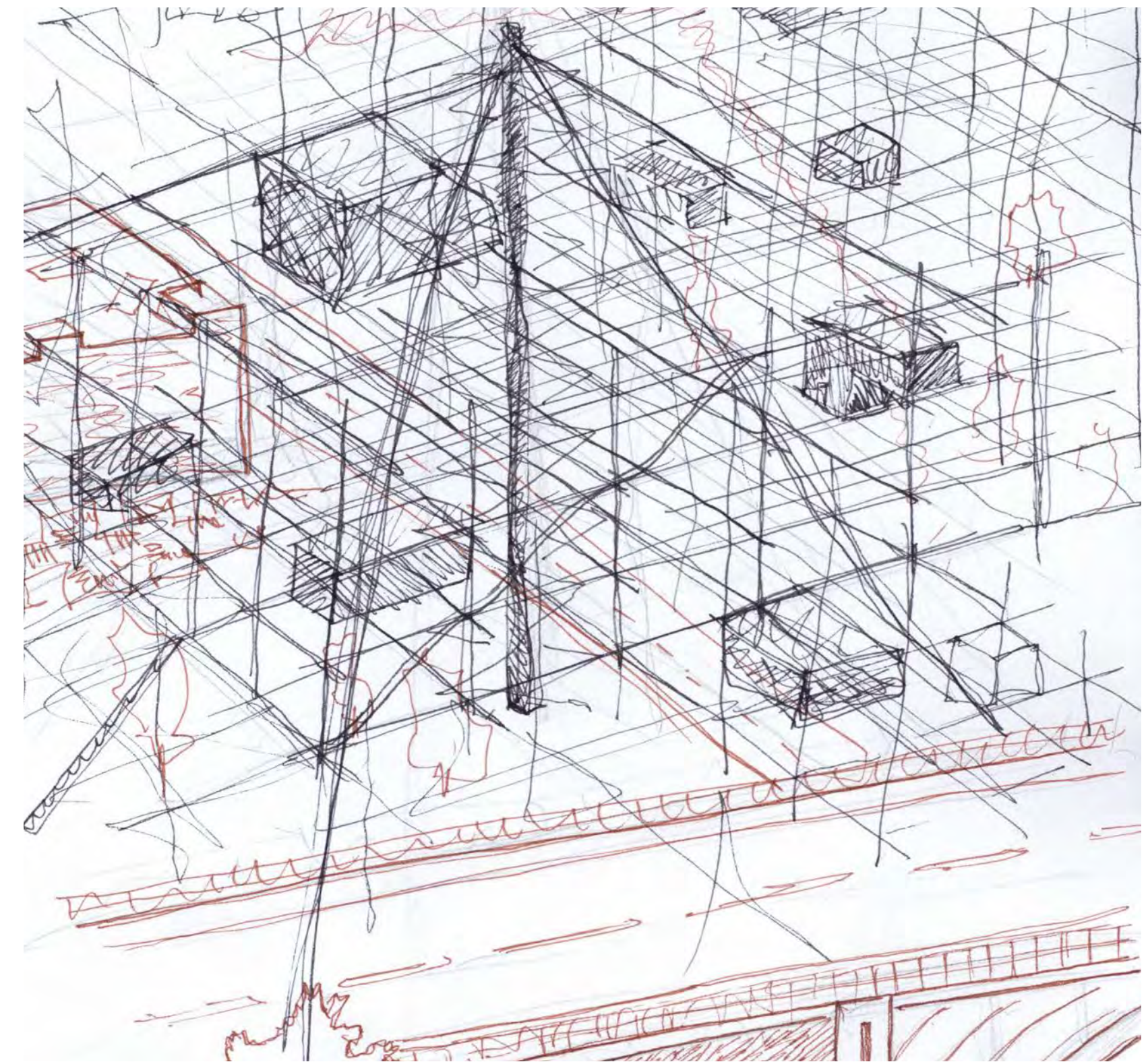
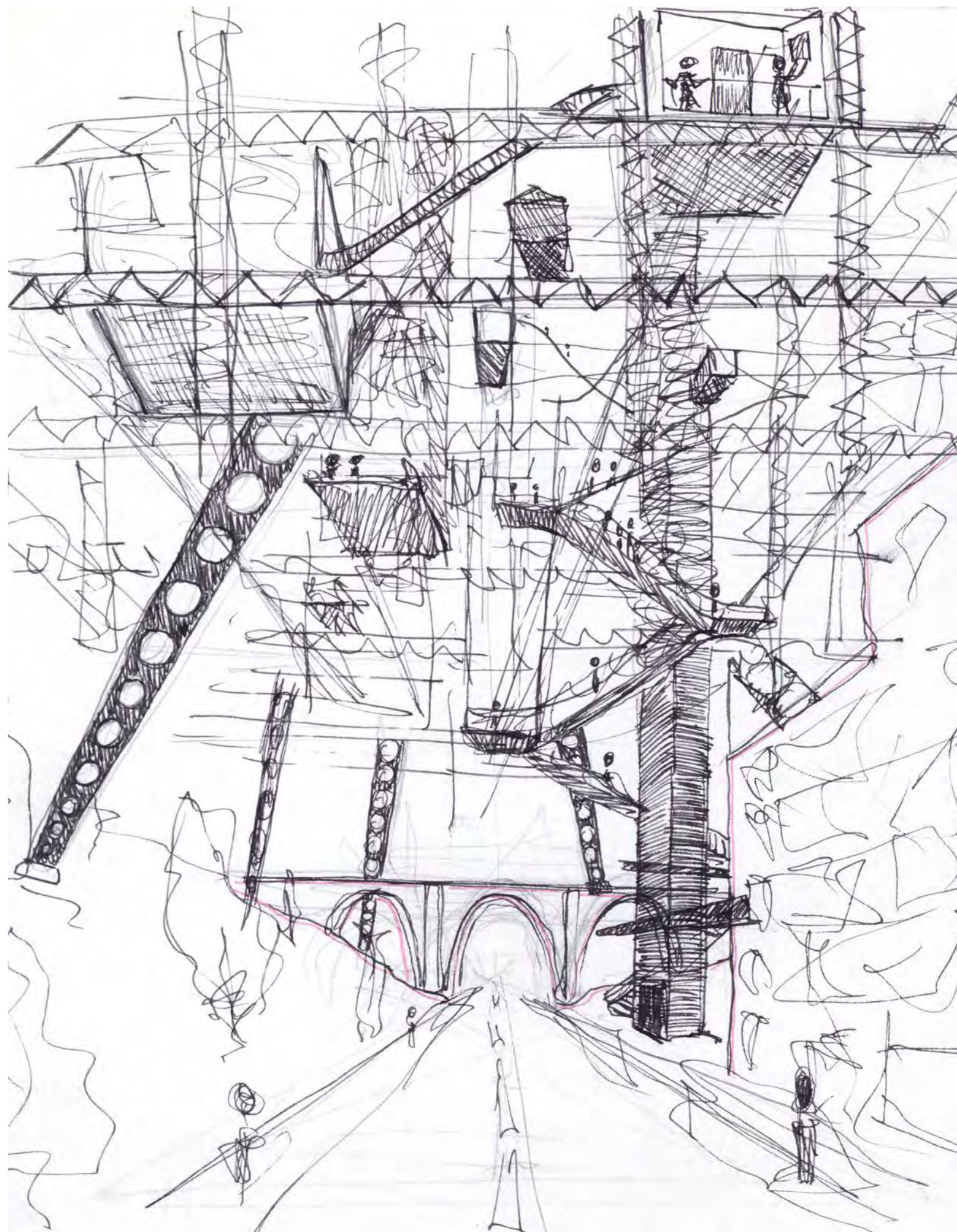
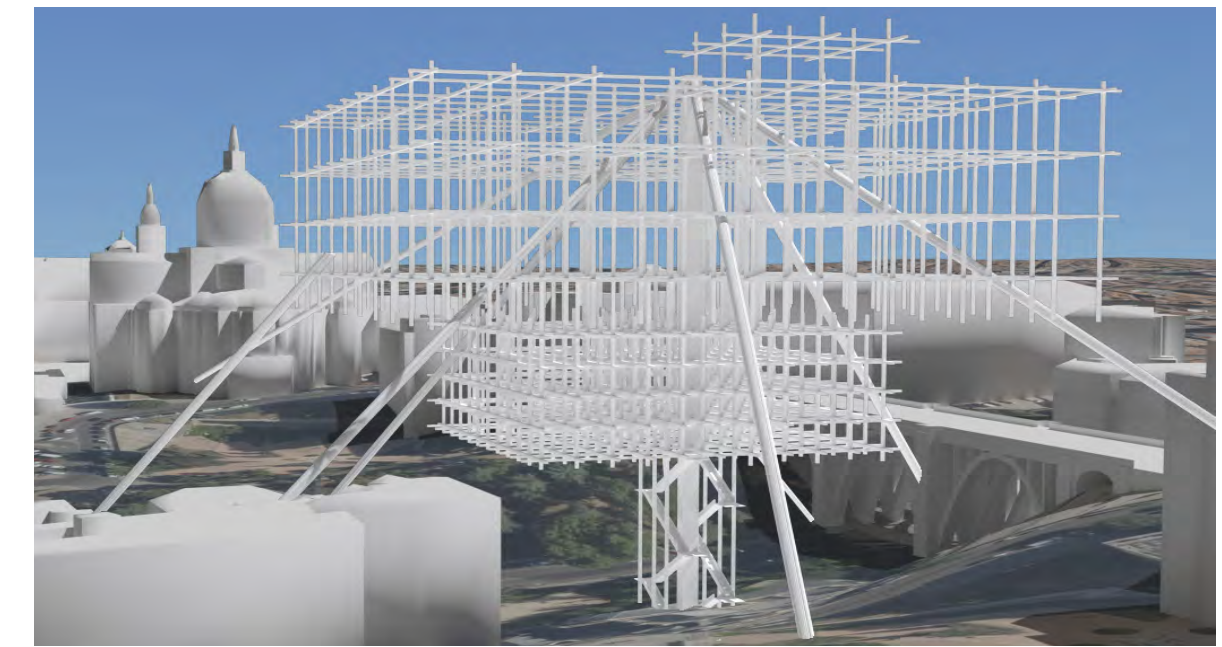
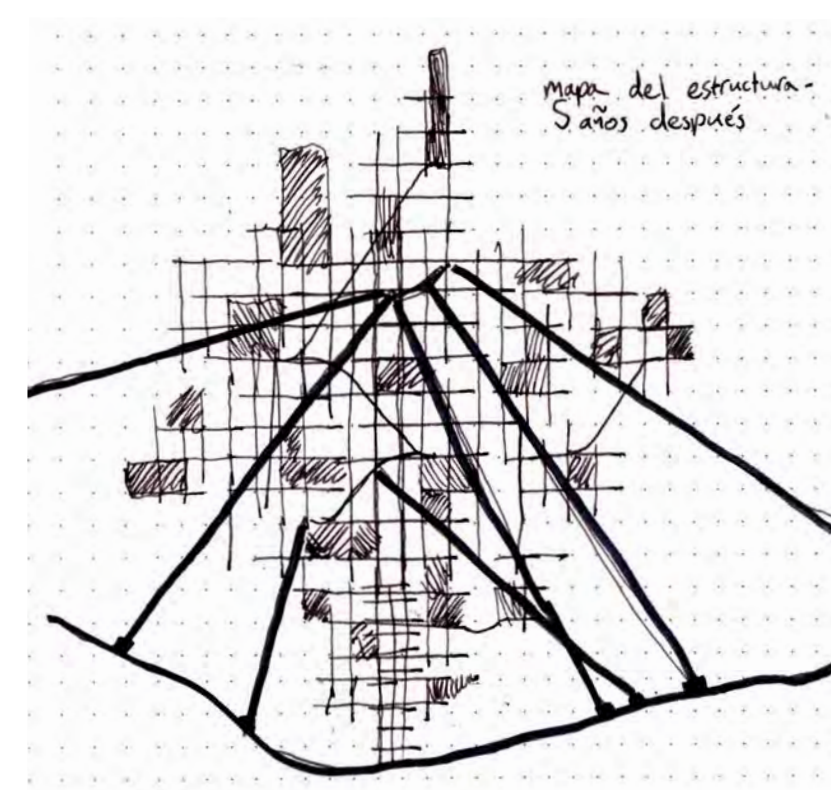
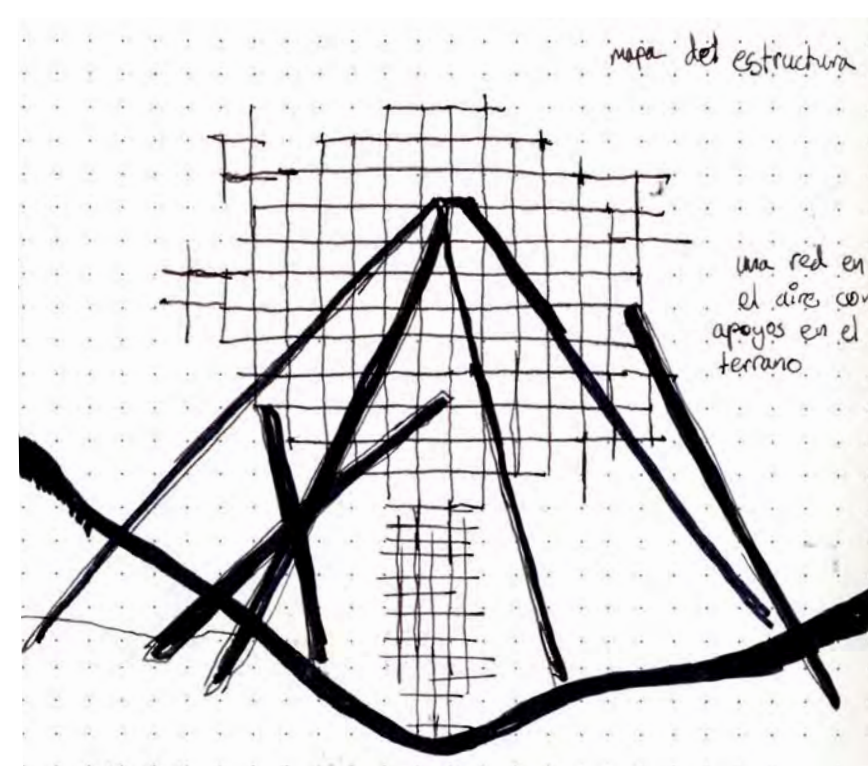
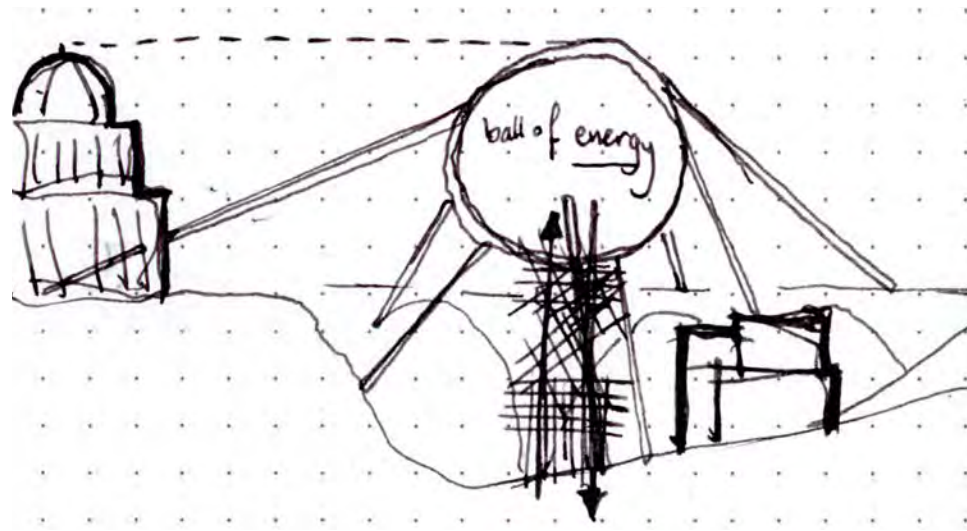
How can a form built in the air subvert relationships on the ground?

Quiero a construir una plataforma y marco para vivir que puede desarrollar y crecer en acuerdo con las necesidades de los residentes. Una espacio libre para alegría, trabajo, y paz, conectado pero aparte de las relaciones típicos del suelo. Que pueda desafiar las jerarquías espaciales de la ciudad no con confrontación sino con celebración.

I want to build a platform and framework for living that can develop and grow in accordance with the needs of its residents. A free space for joy, work, and peace, connected but apart from the typical relationships of the ground. A space that can challenge the spatial hierarchies of the city not with confrontation but with celebration.



[illegible]



Una colección dinámica y dispersa de edificios y estructuras en el aire. Trazados y redes de materiales e interacciones. Una respuesta igualitaria, con una forma arquitectónica totalmente nueva para la ciudad.

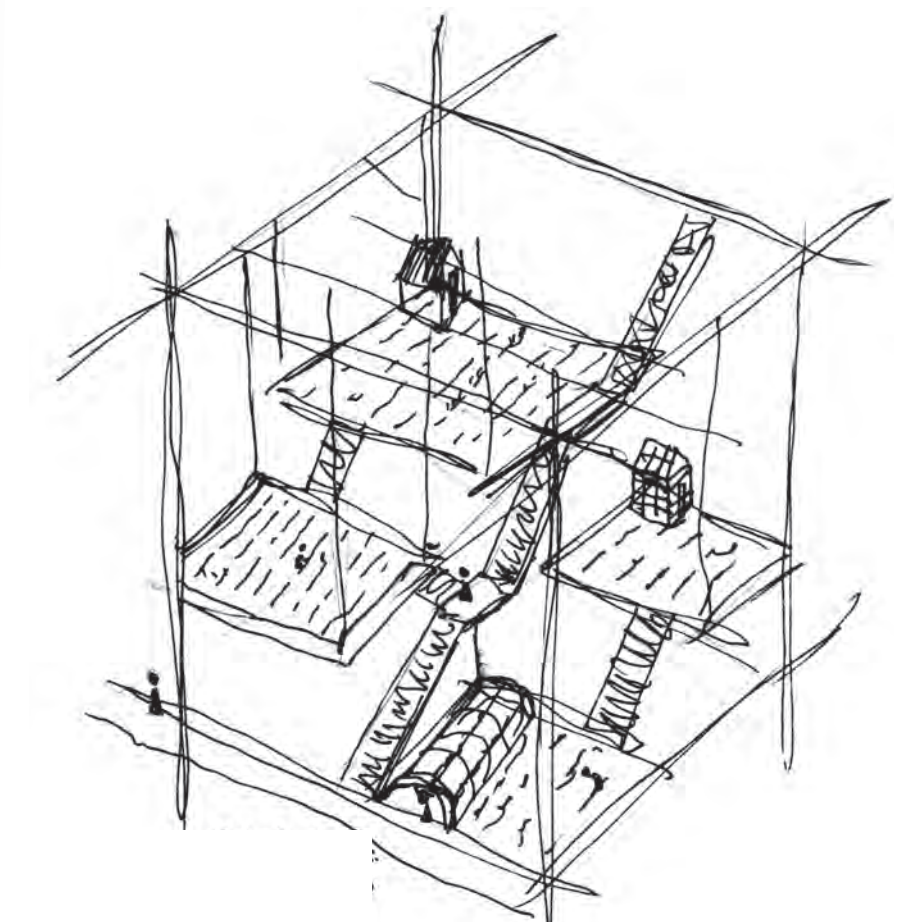
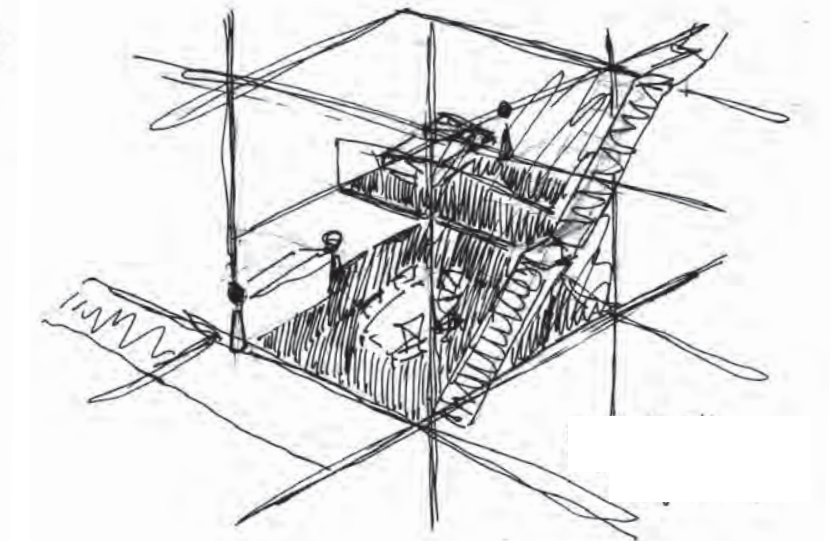
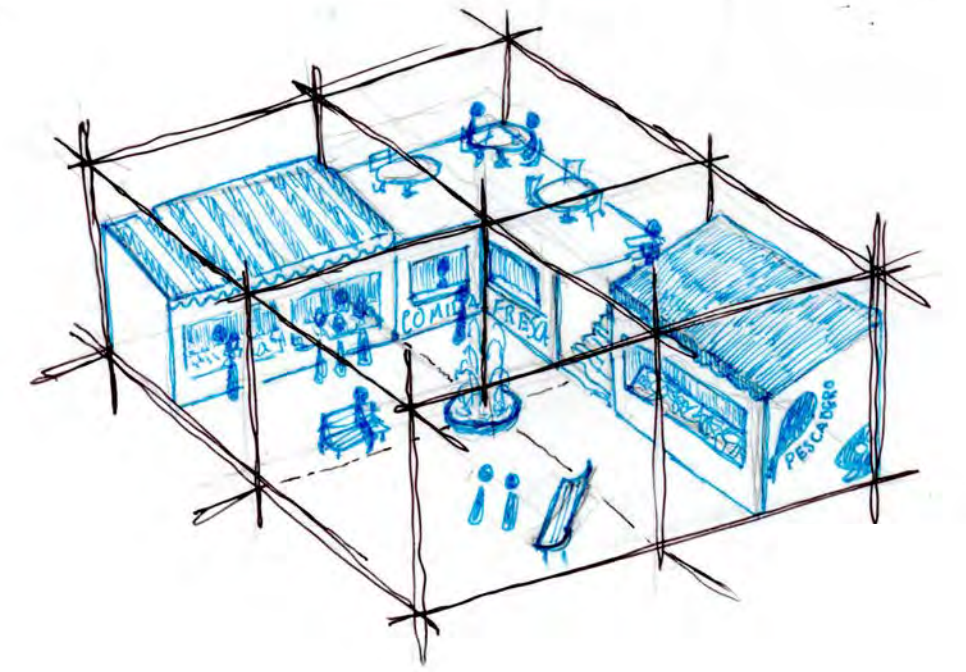
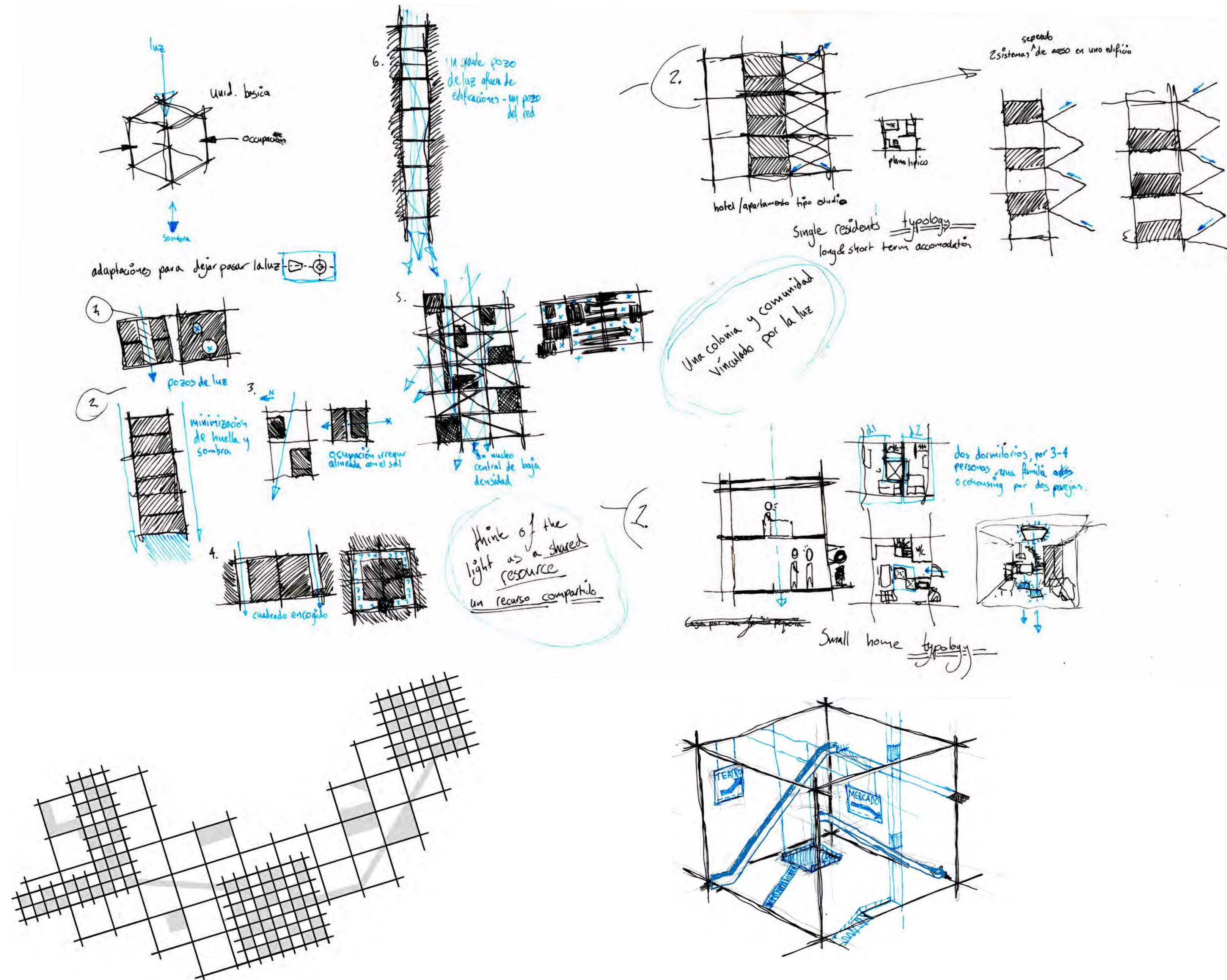
An energetic, loose collection of buildings and structures in the air. Grids and networks of material and interactions. An egalitarian response, with a totally new architectonic form for the city.



respuesta al lugar



sombra y luz; objetos en una red





Respuesta

una red

en el aire

poblado

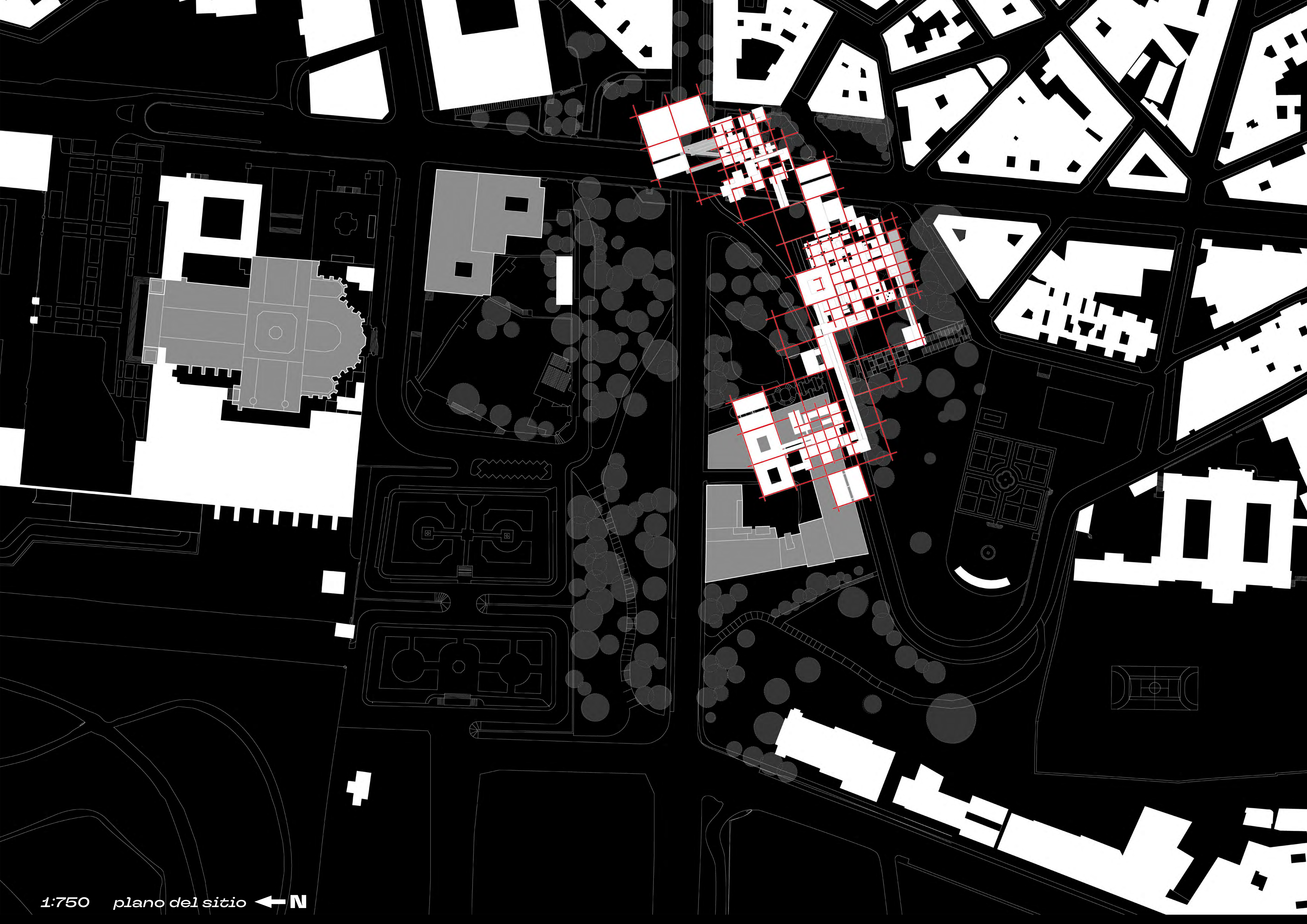
de manera

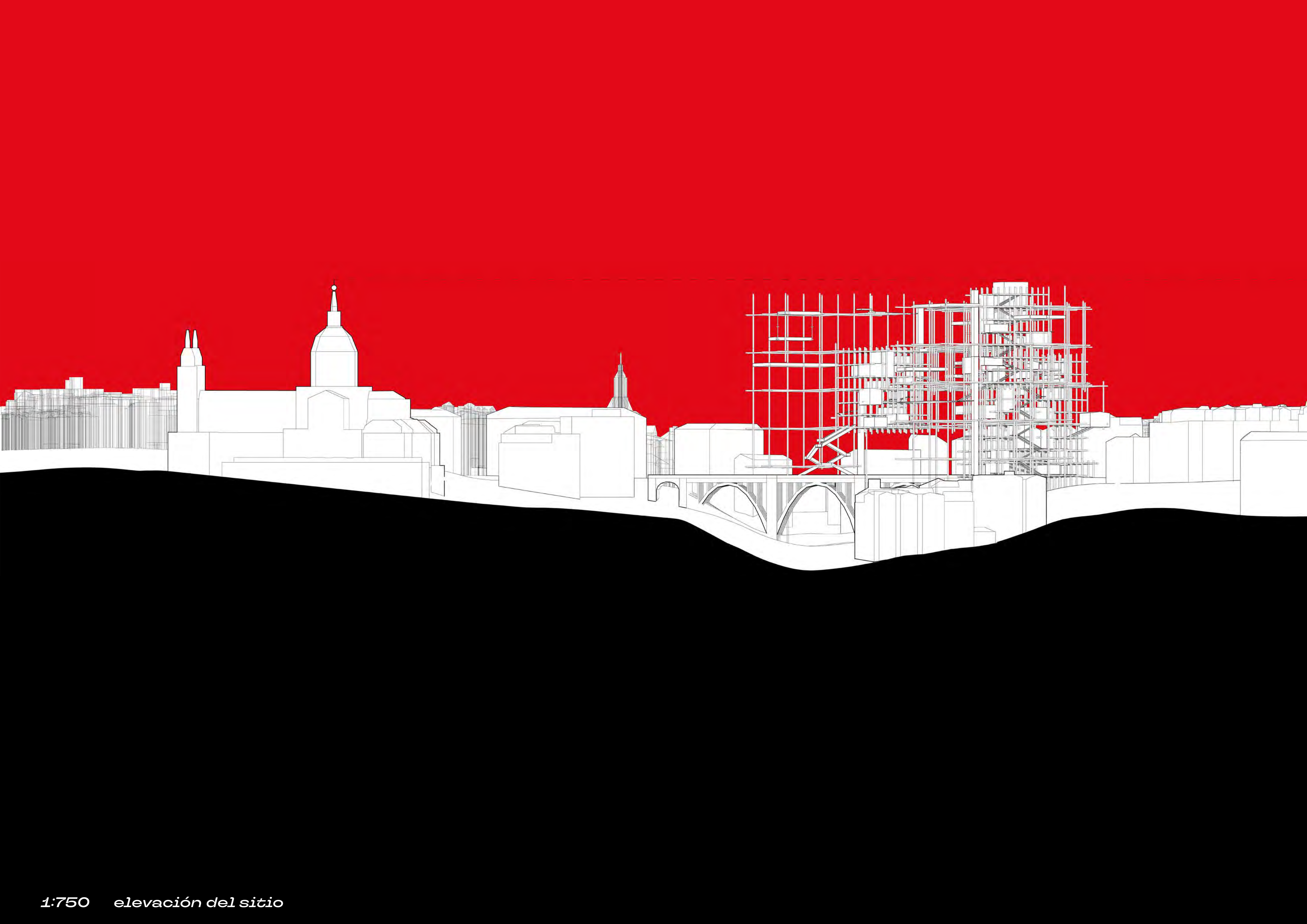
heterodoxa

1:7000



plano del centro de Madrid

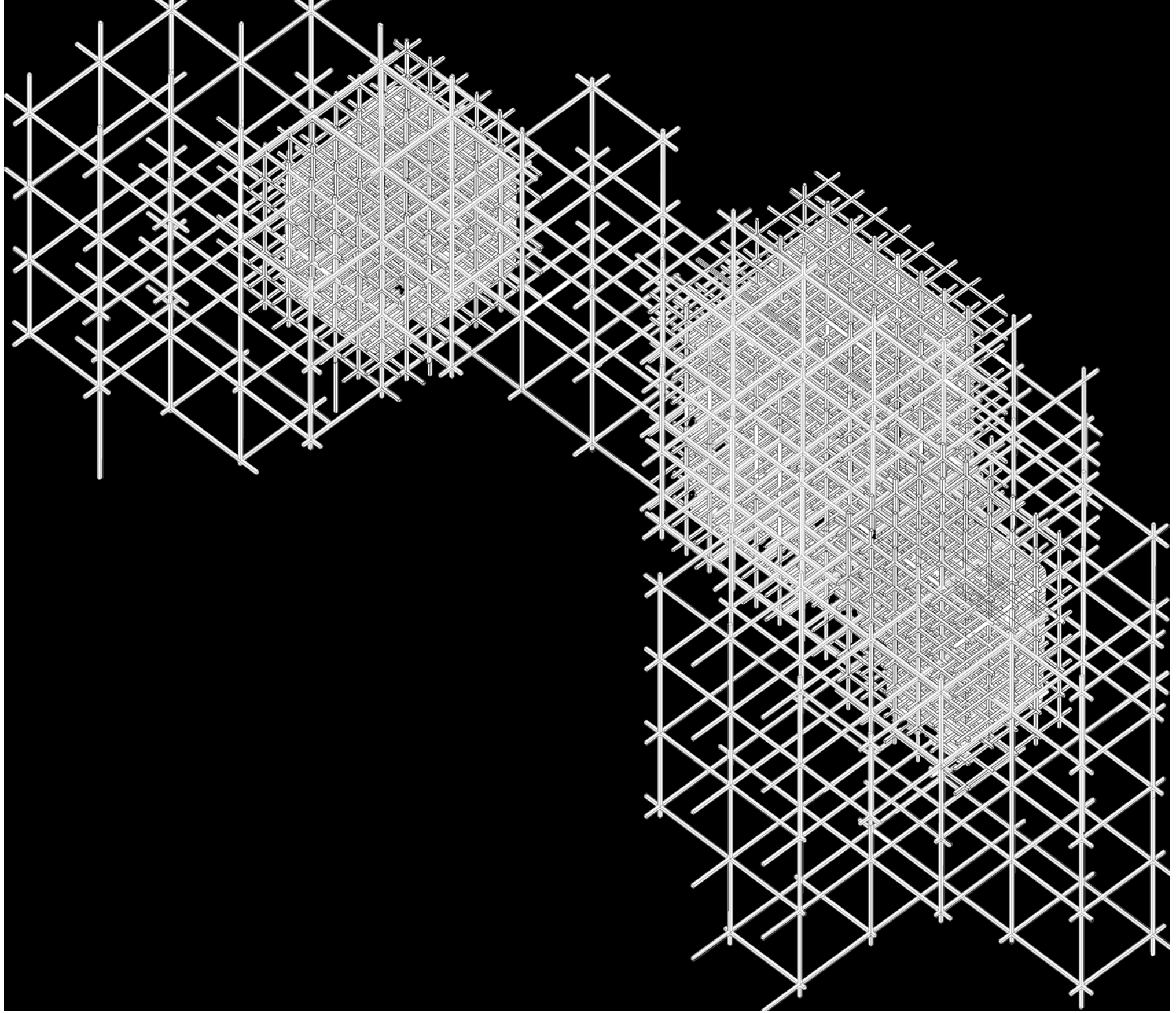




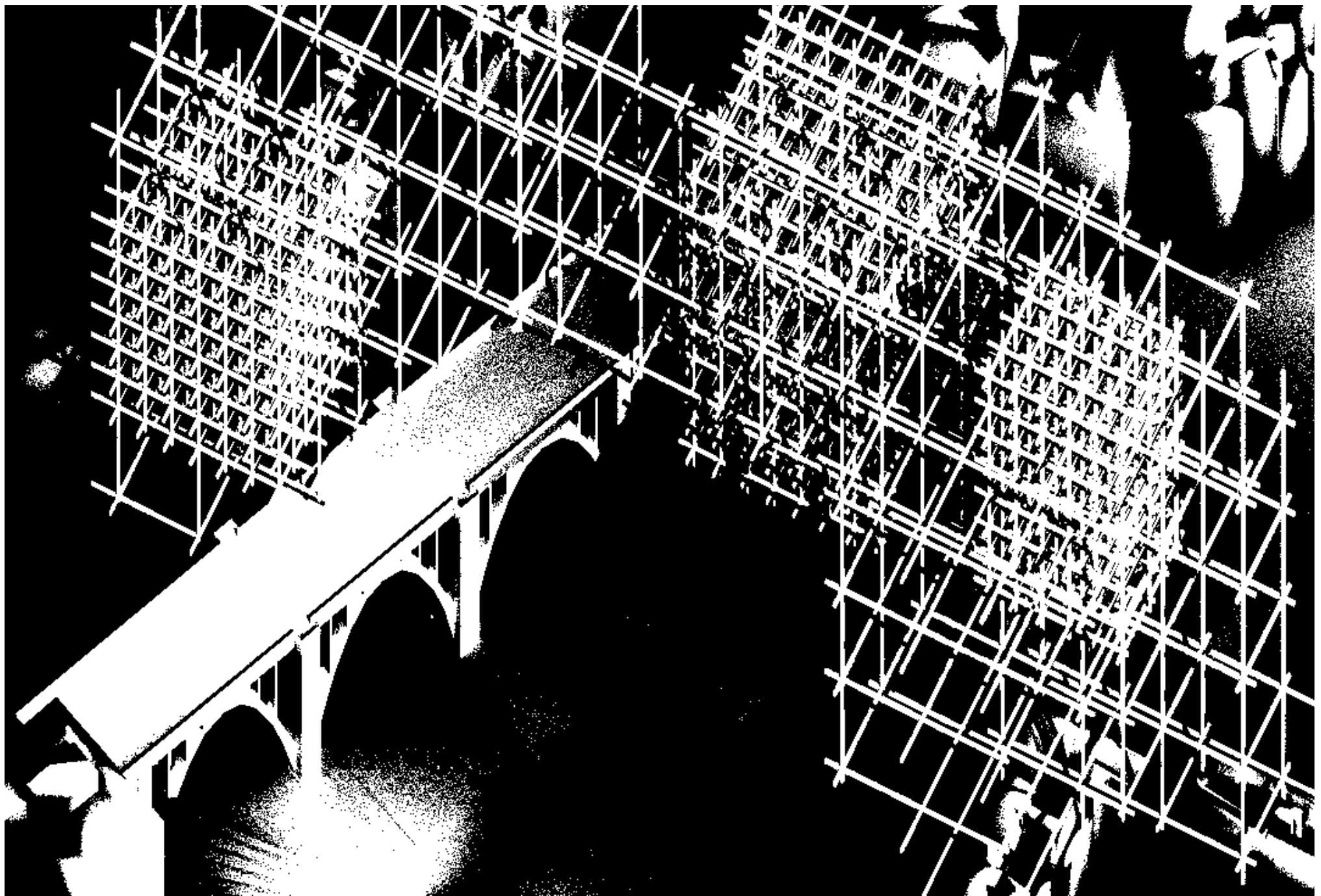
La red \ infraestruct

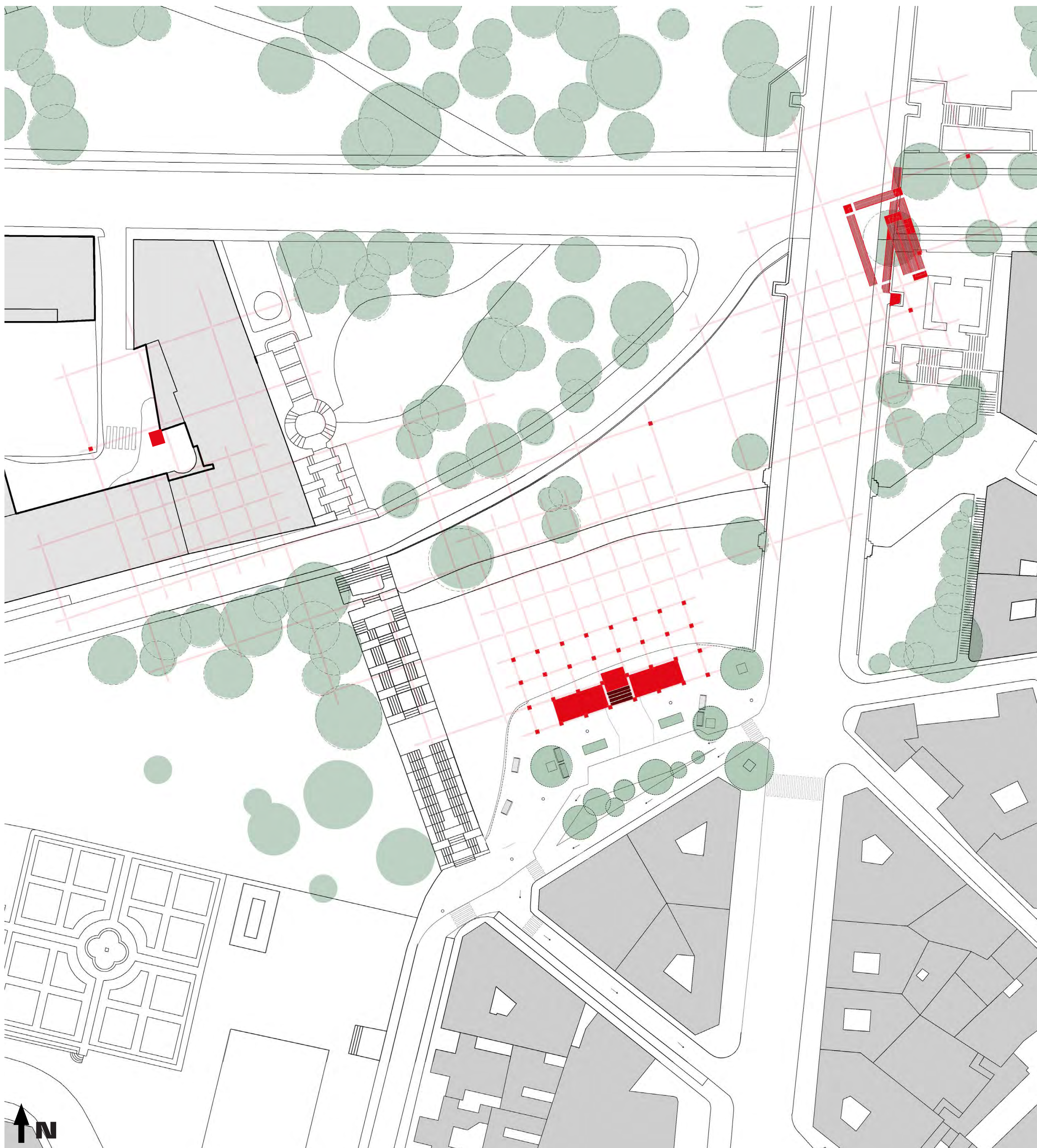


forma de la red



menos sombra, mas aire





La infraestructura permanente toca el suelo de forma mínima, como columnas de hormigón discretas que se hunden directamente en la tierra, con la excepción de las dos entradas principales, que operan a escalas muy diferentes.

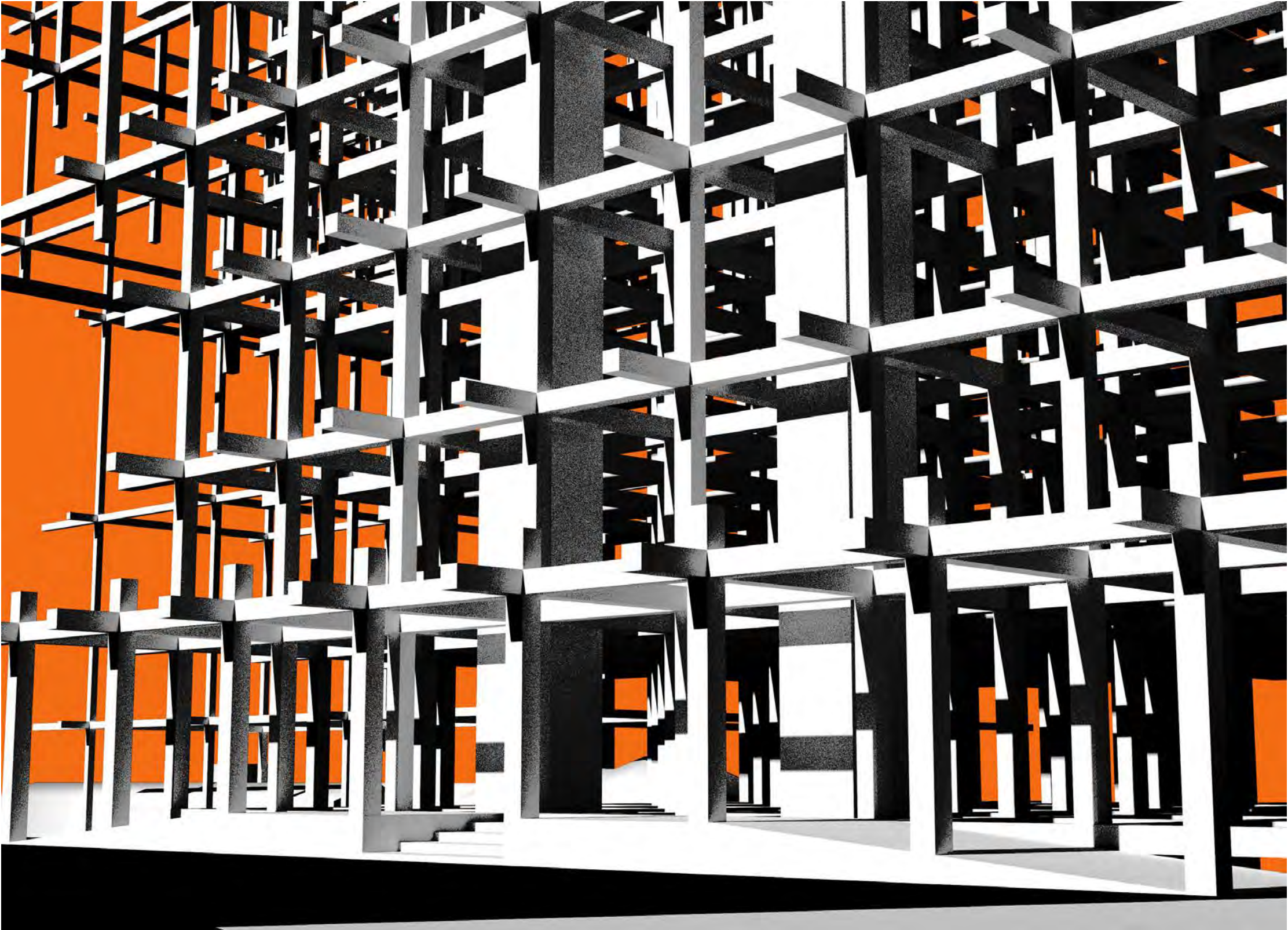
La entrada al puente crea una experiencia individual, articulada mediante una serie de escaleras mecánicas ascendentes y sinuosas, que enfatizan la fenomenología de la estructura, la sensación de estar en el aire.

La entrada con mirador crea un núcleo cívico para la estructura, una apertura funcional y simbólicamente universal a la densa red, en contraste con el resto de su forma.

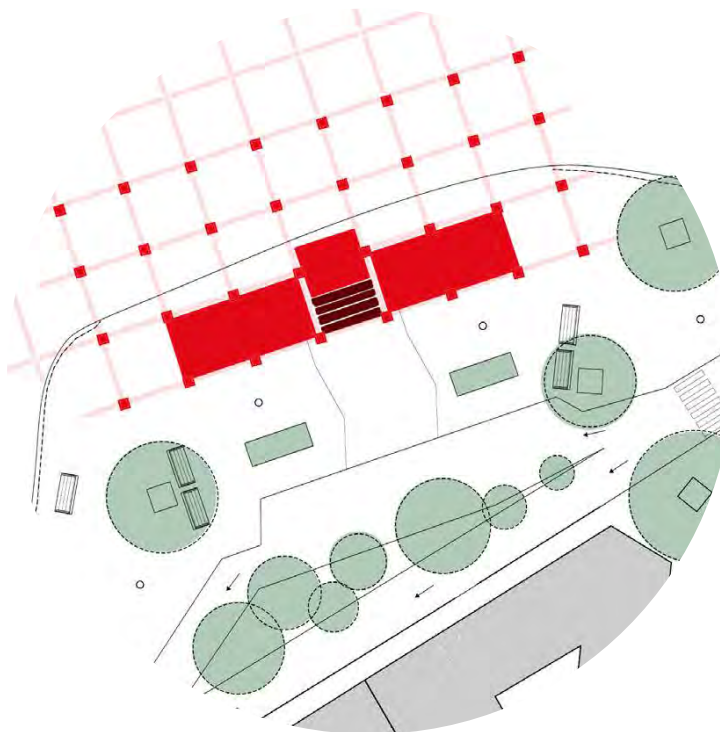
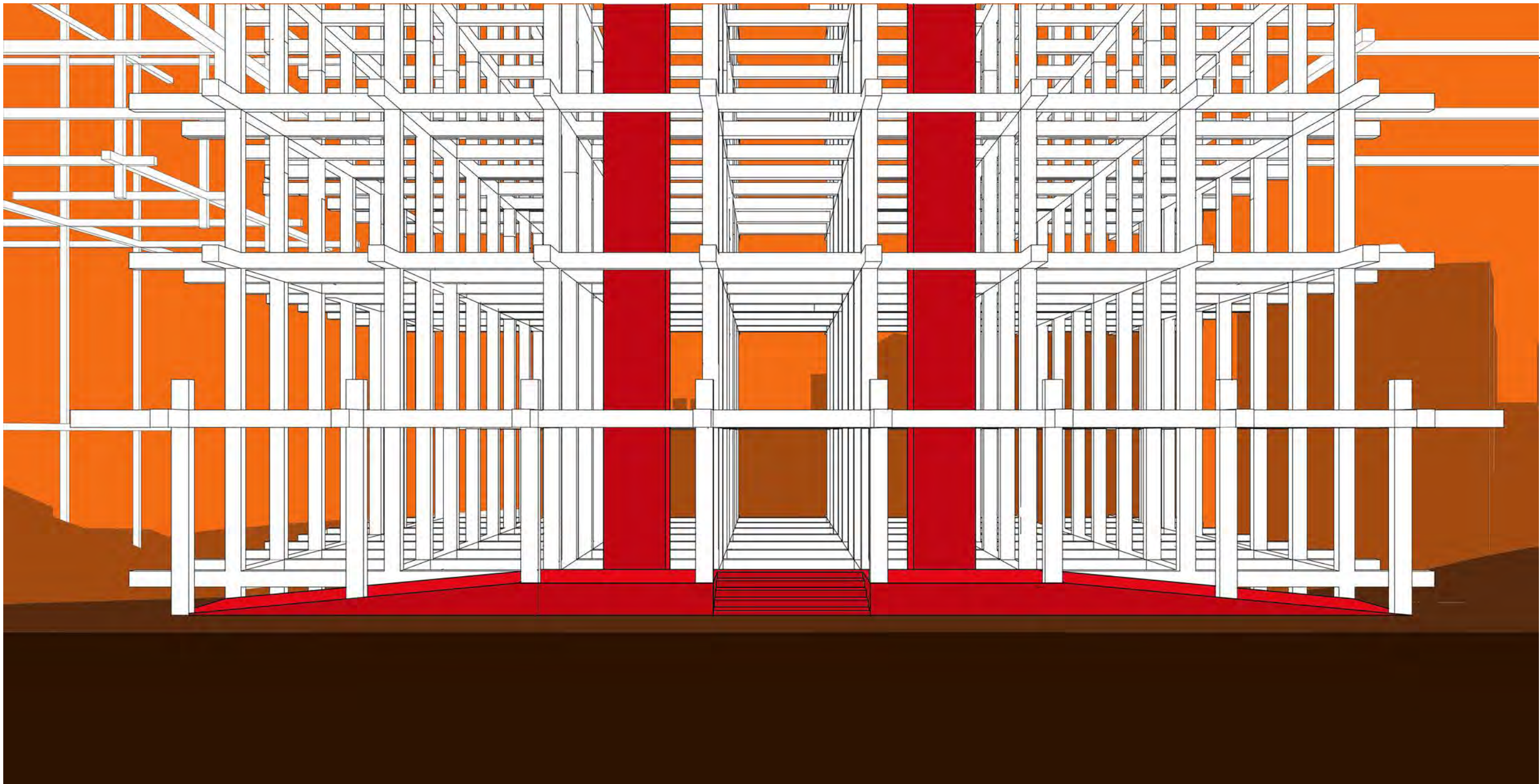
The permanent infrastructure touches the ground in a minimal manner, as discrete concrete columns plunging directly into the earth, with the exception of the two main entrances, which operate on very different scales.

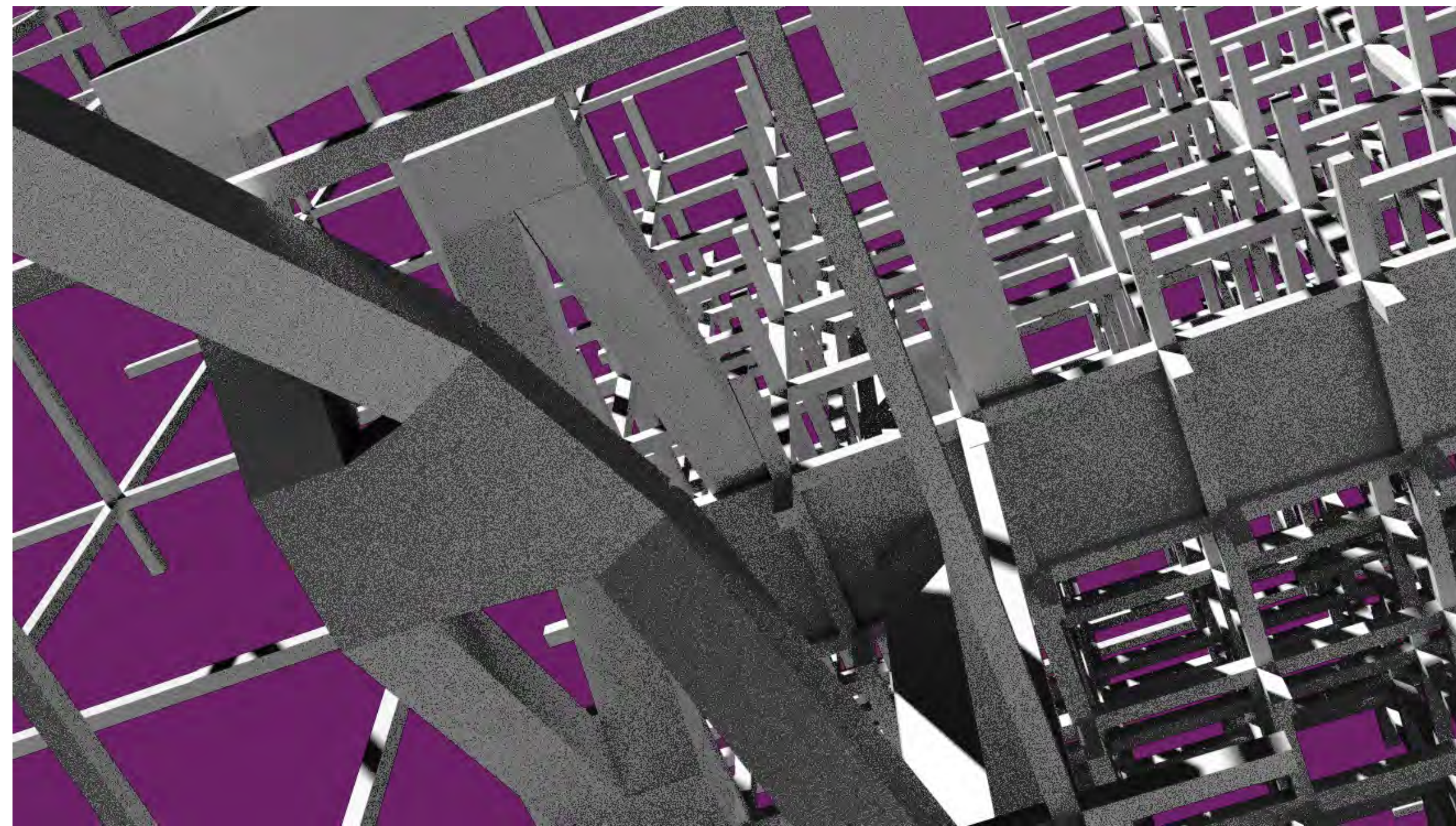
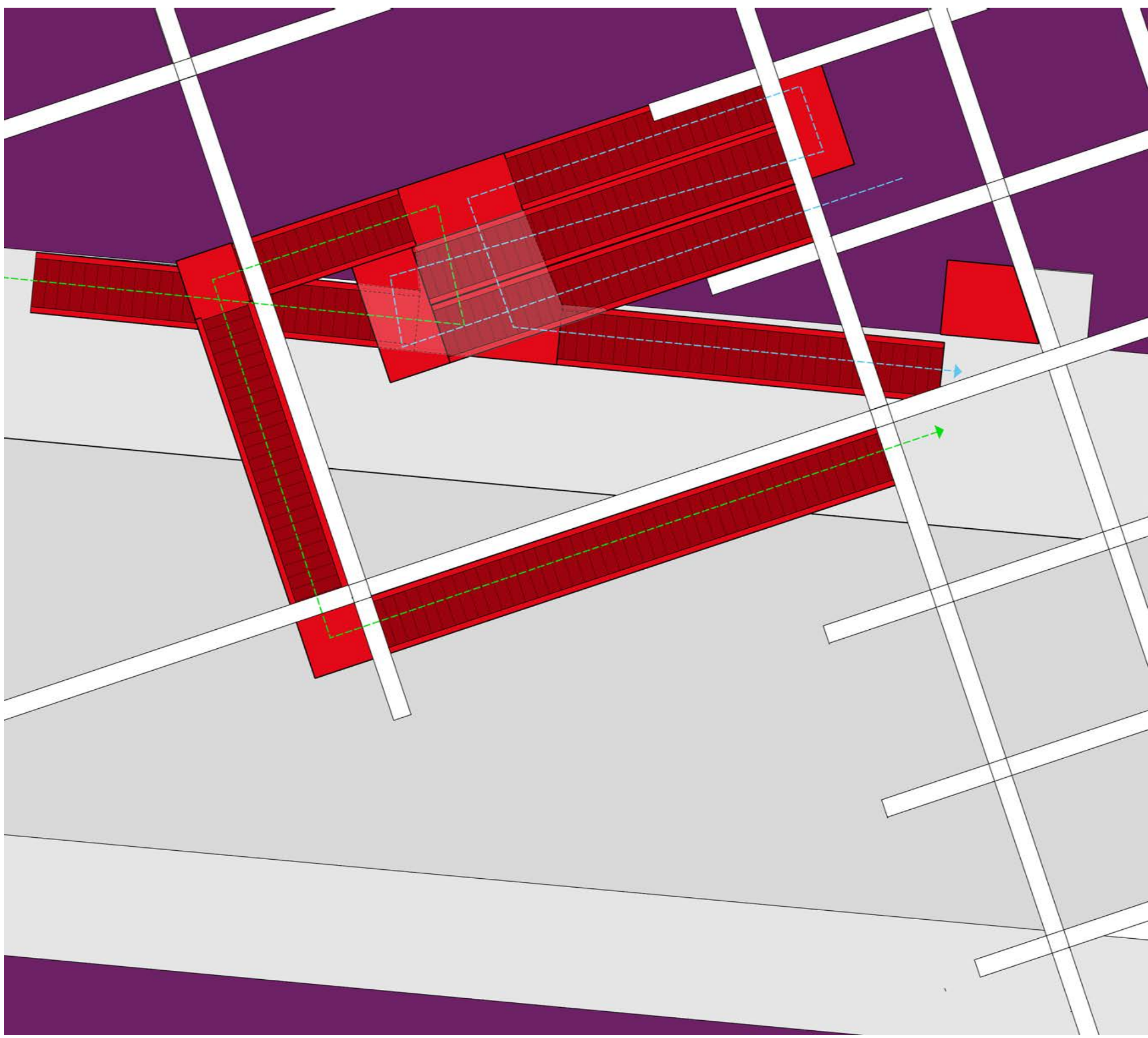
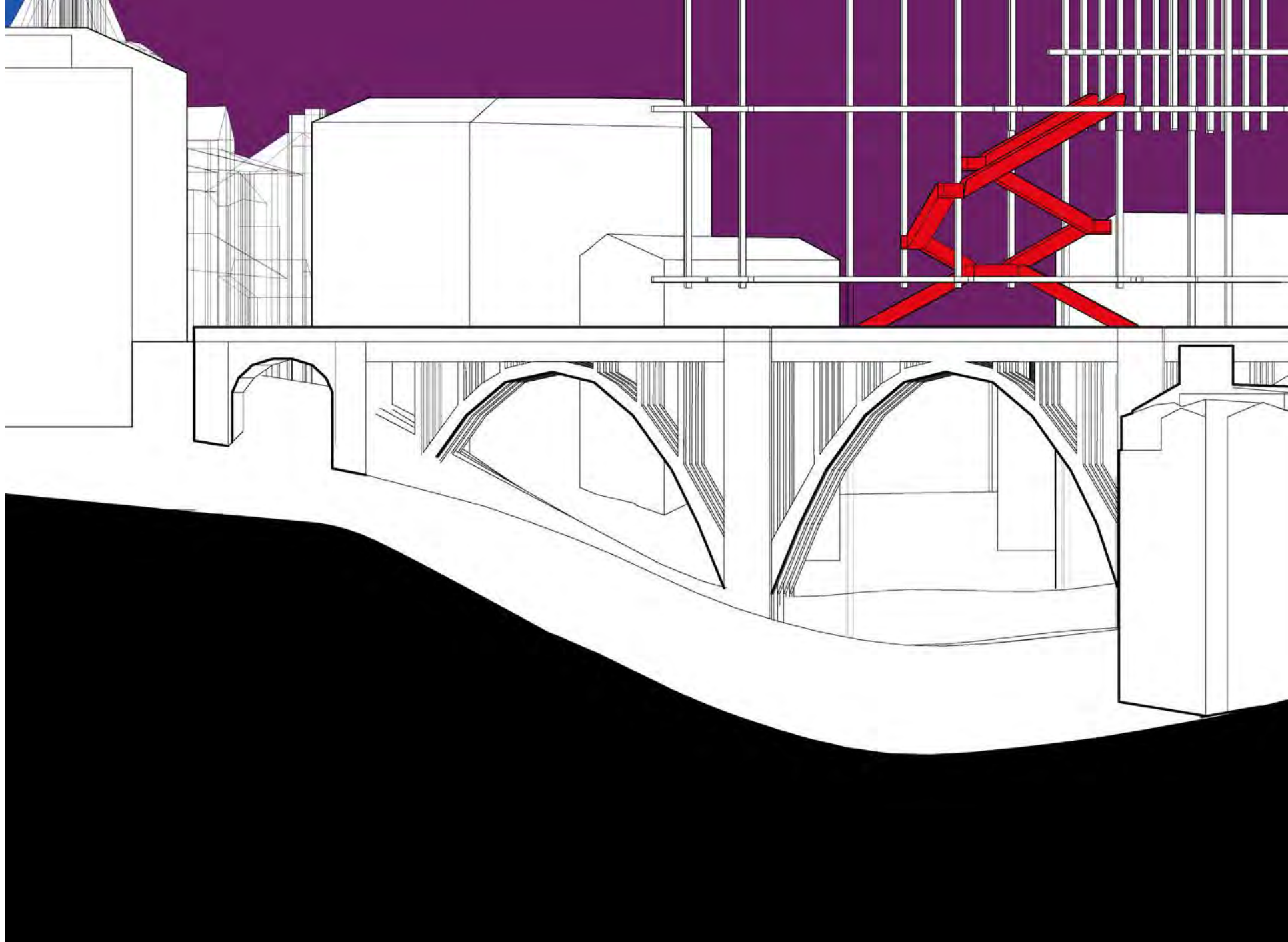
The entrance on the bridge creates an individual experience, articulated through a series of rising, twisting escalator, emphasising the phenomenology of the structure, the feeling of being in the air.

The viewpoint entrance creates a civic heart to the structure, a functional and symbolically universal opening into the dense network, in contrast with the rest of it's somewhat aloof form.

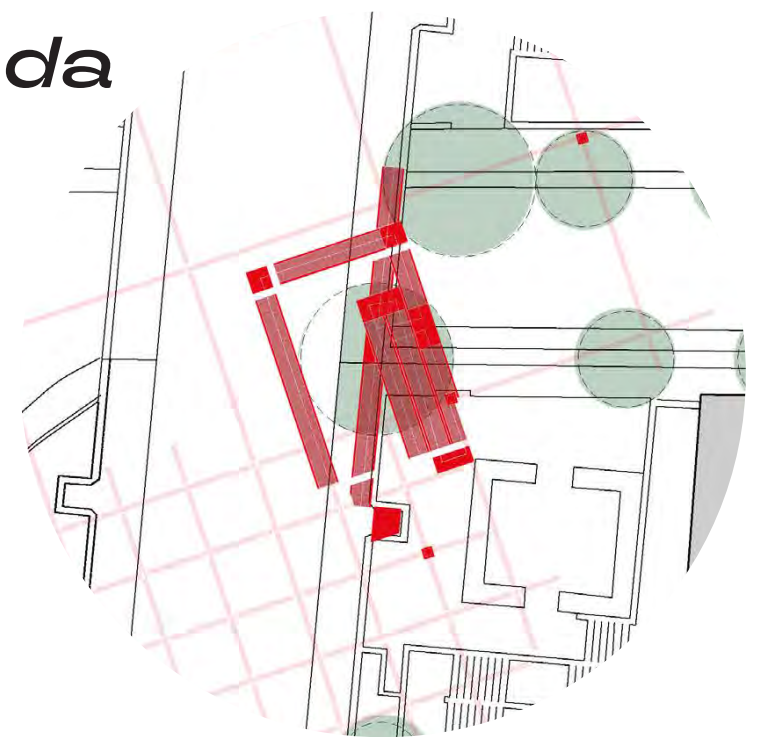


una plaza nueva por todos
Promover los viajes activos y las caminatas para los residentes

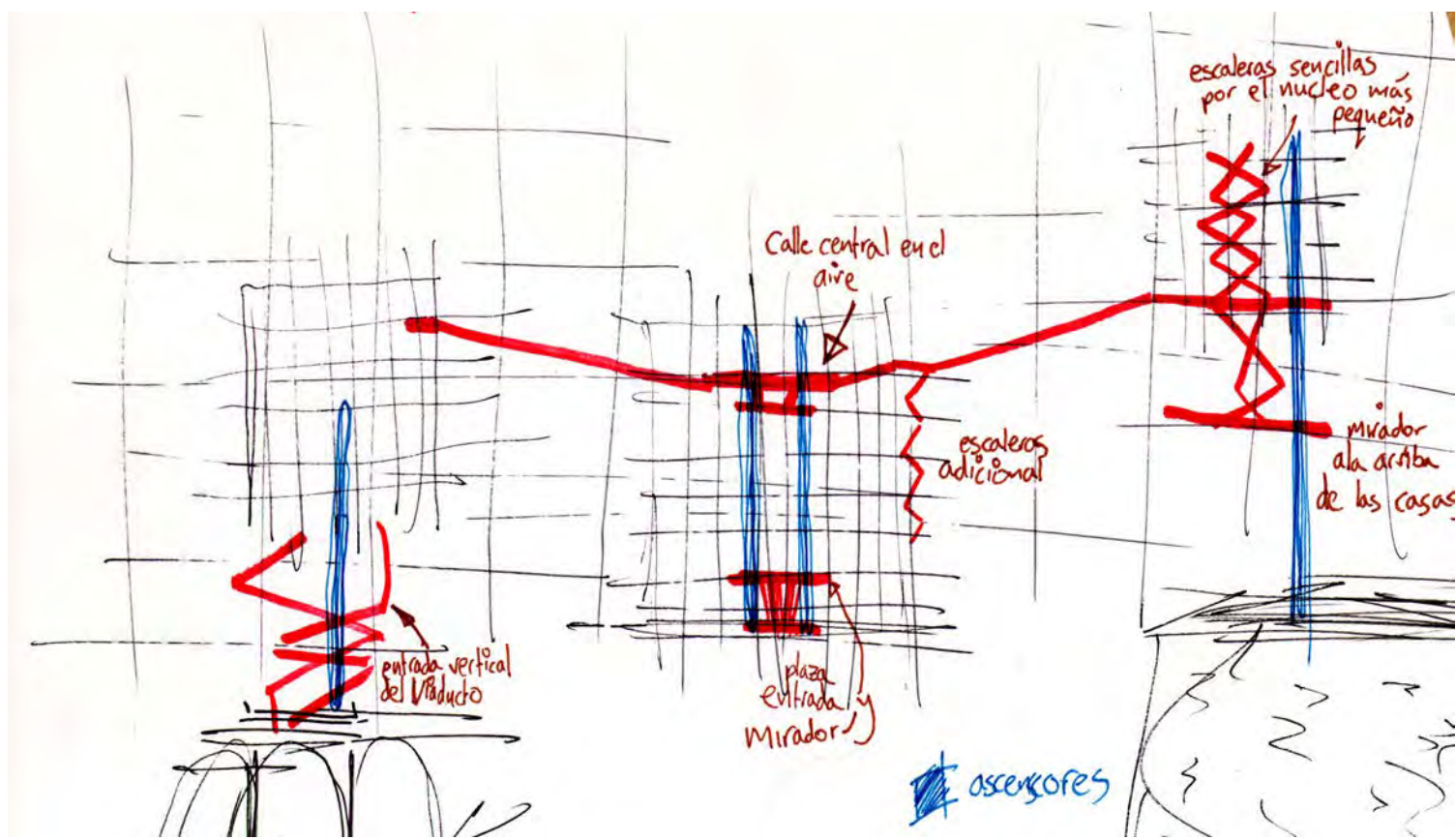
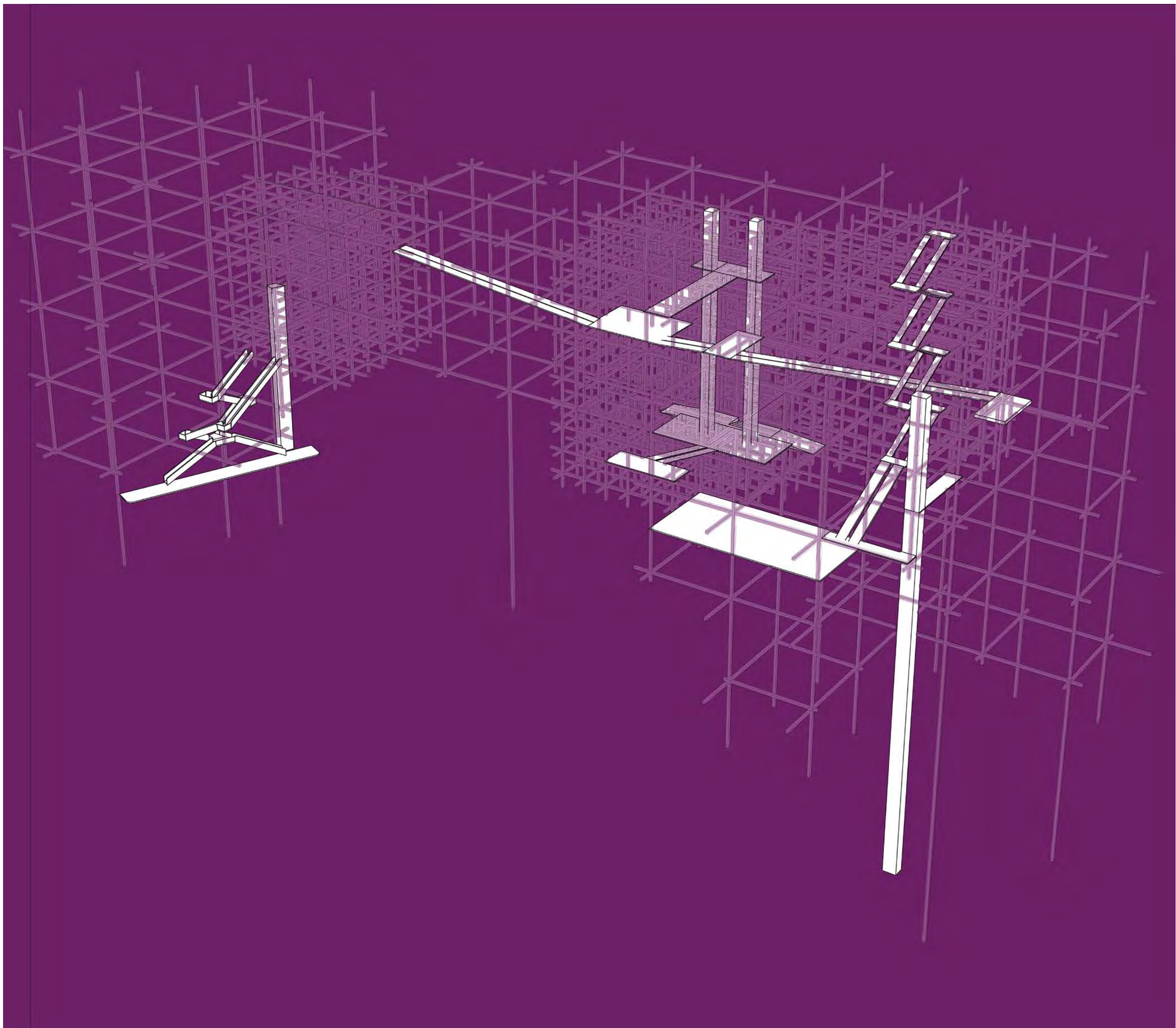




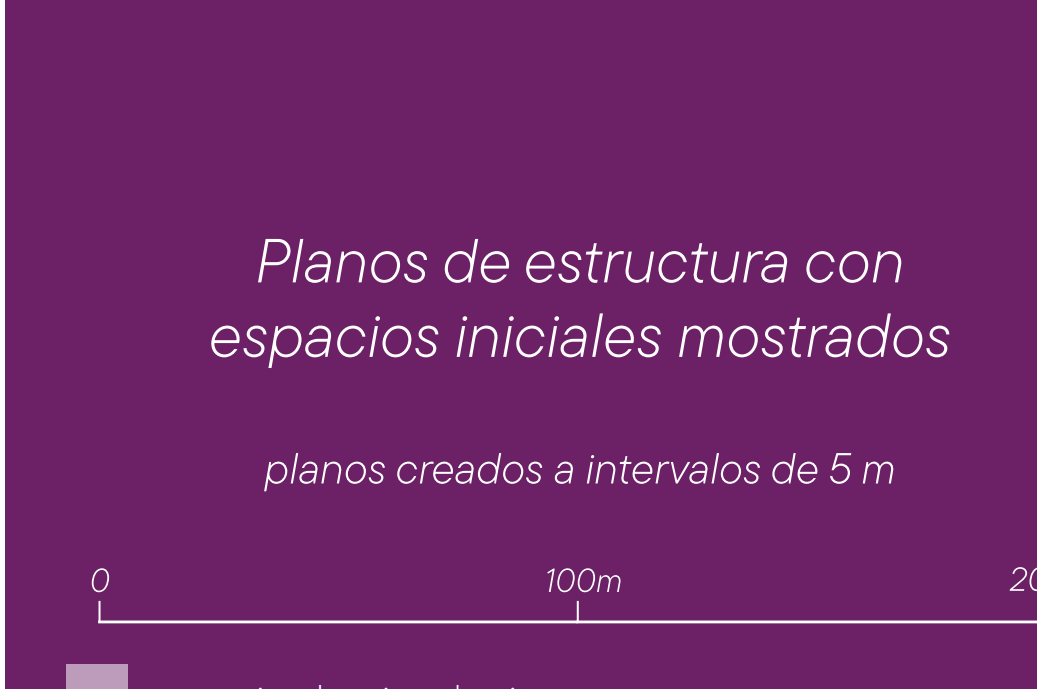
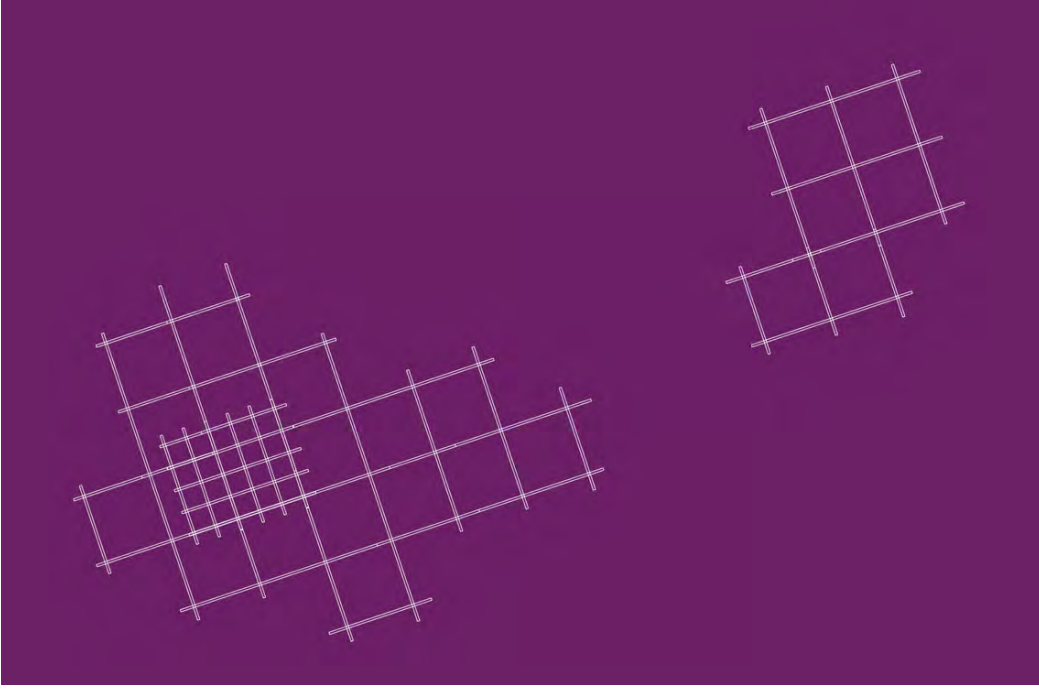
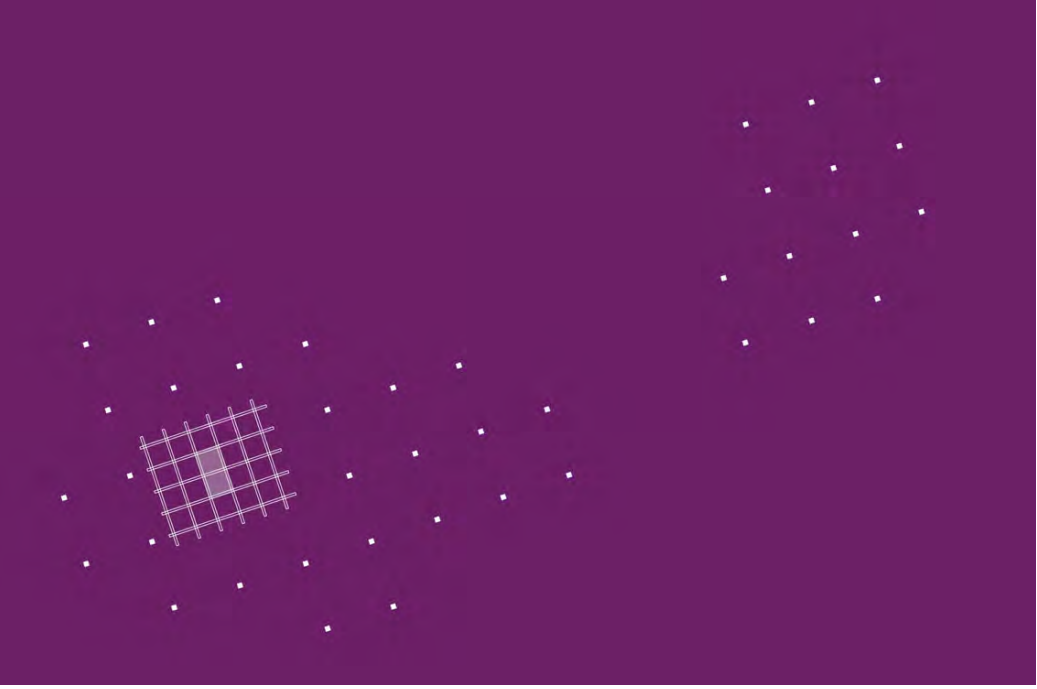
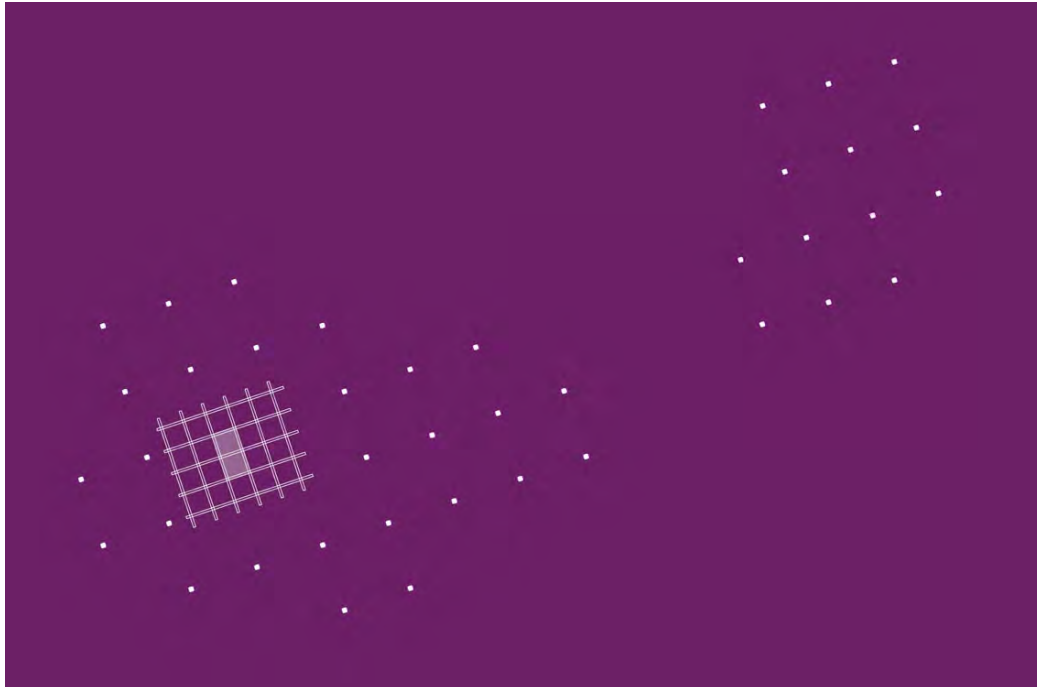
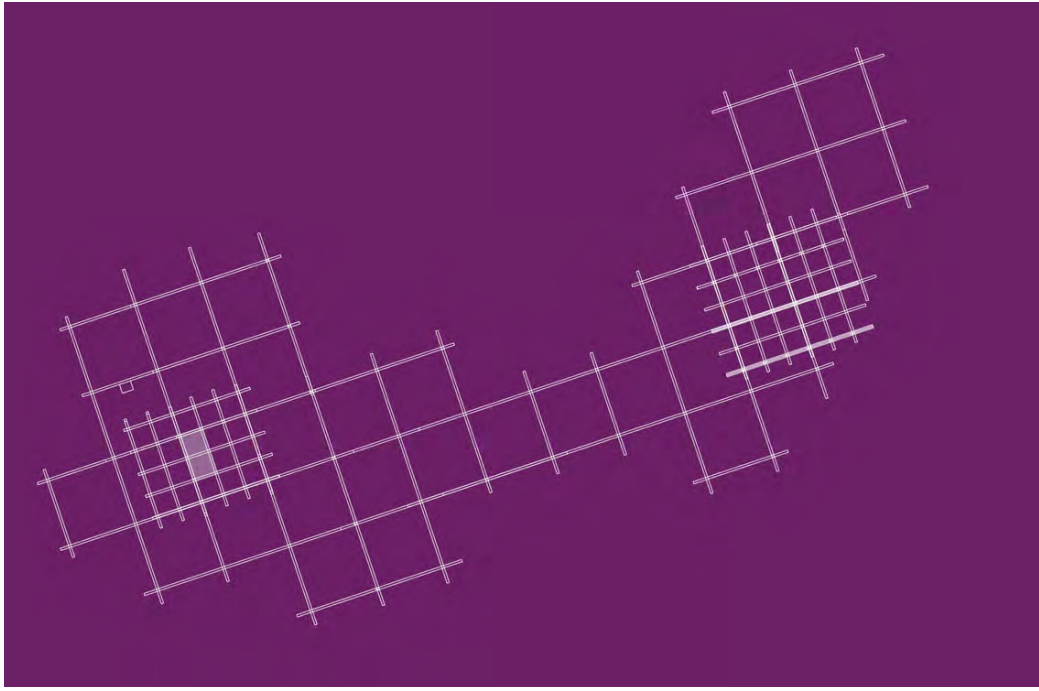
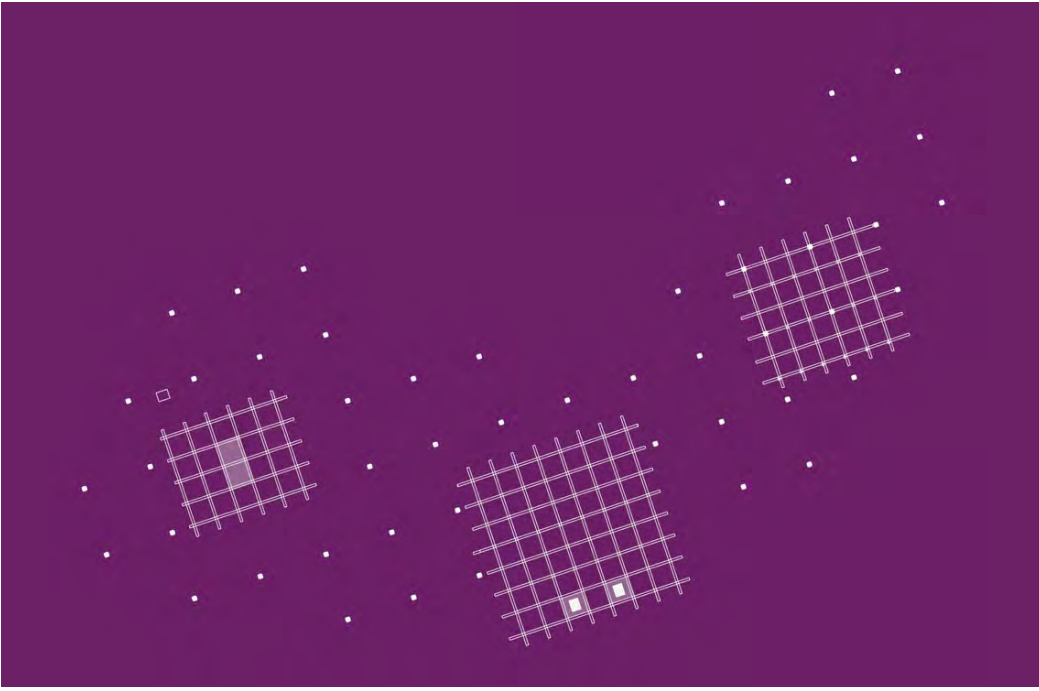
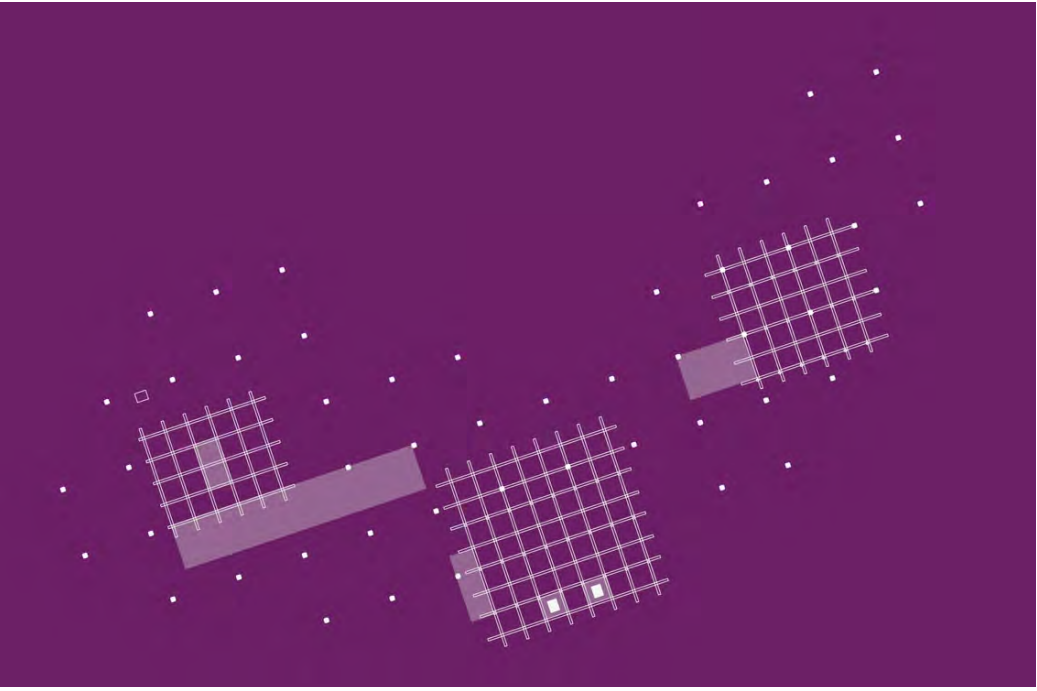
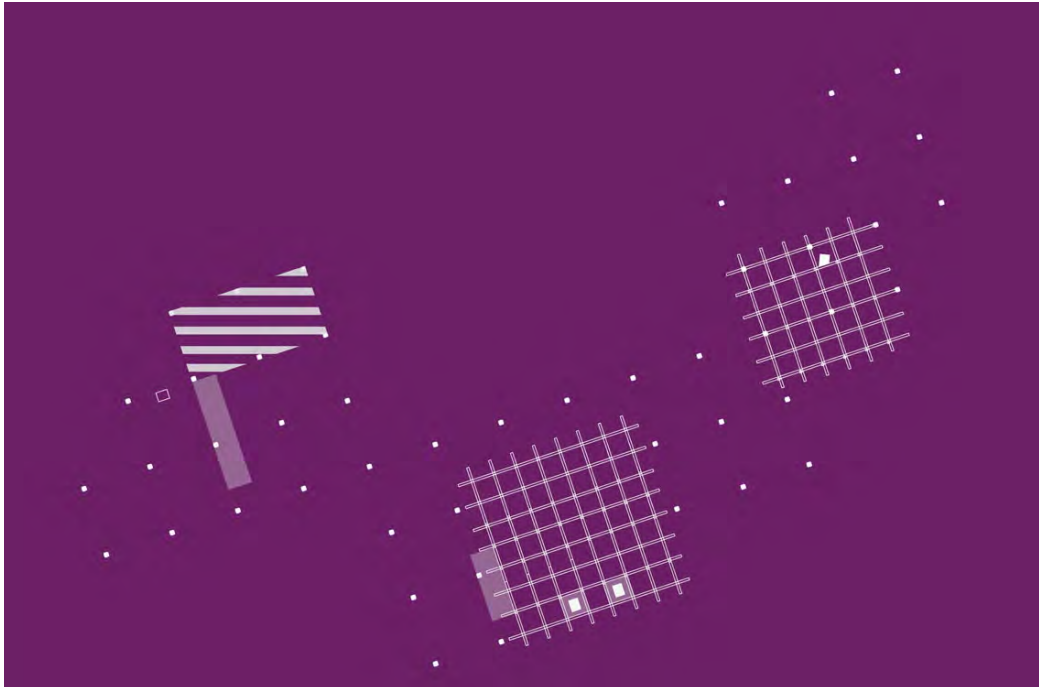
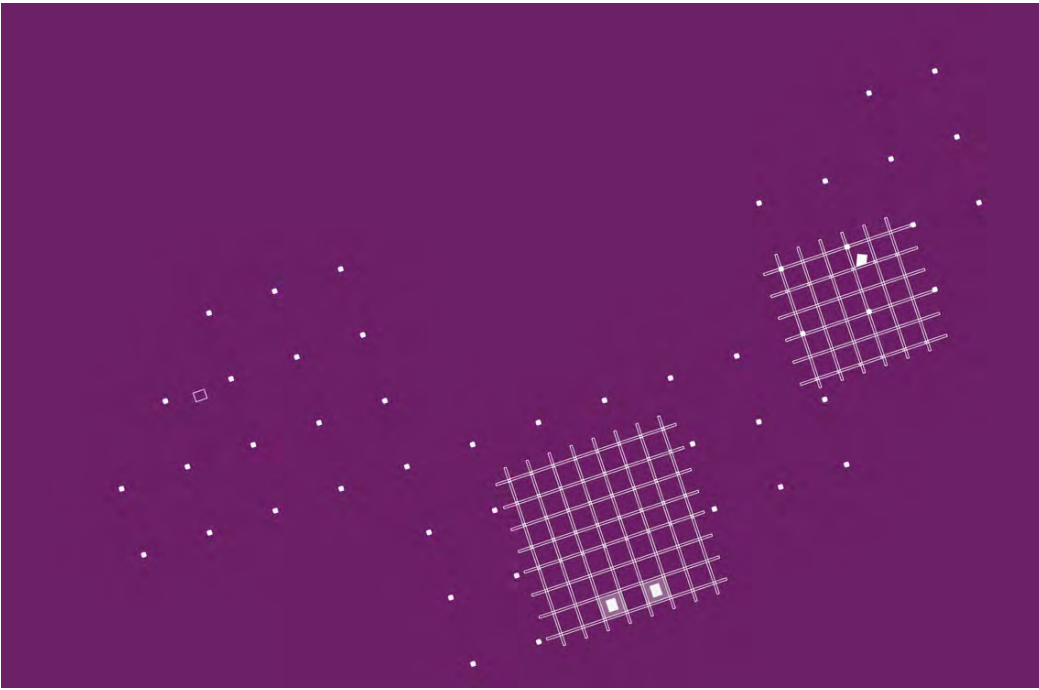
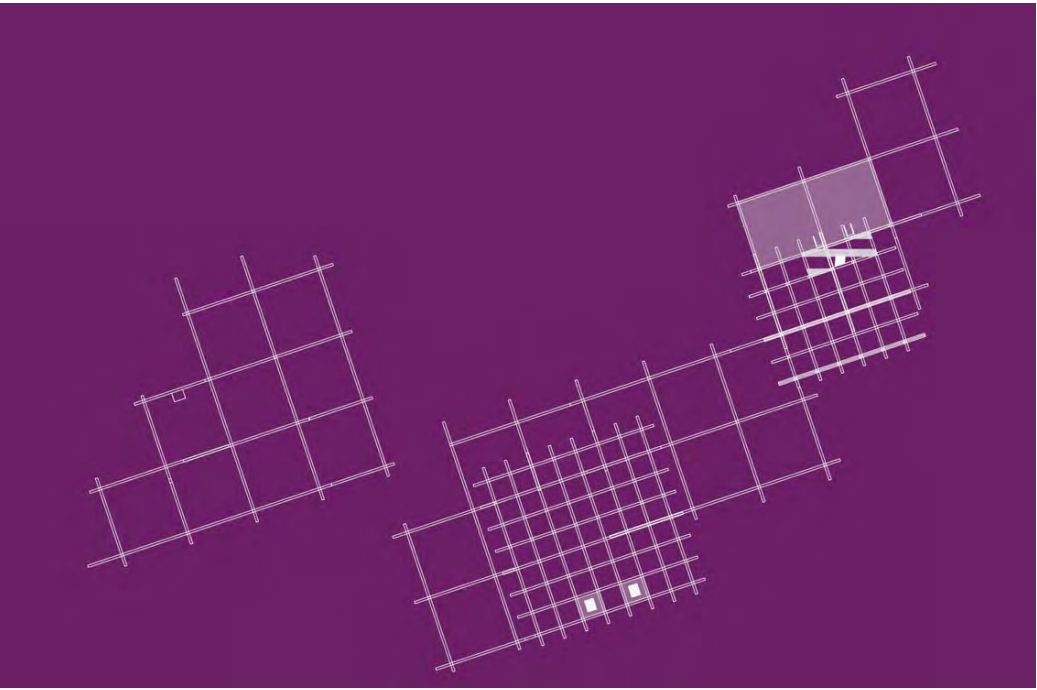
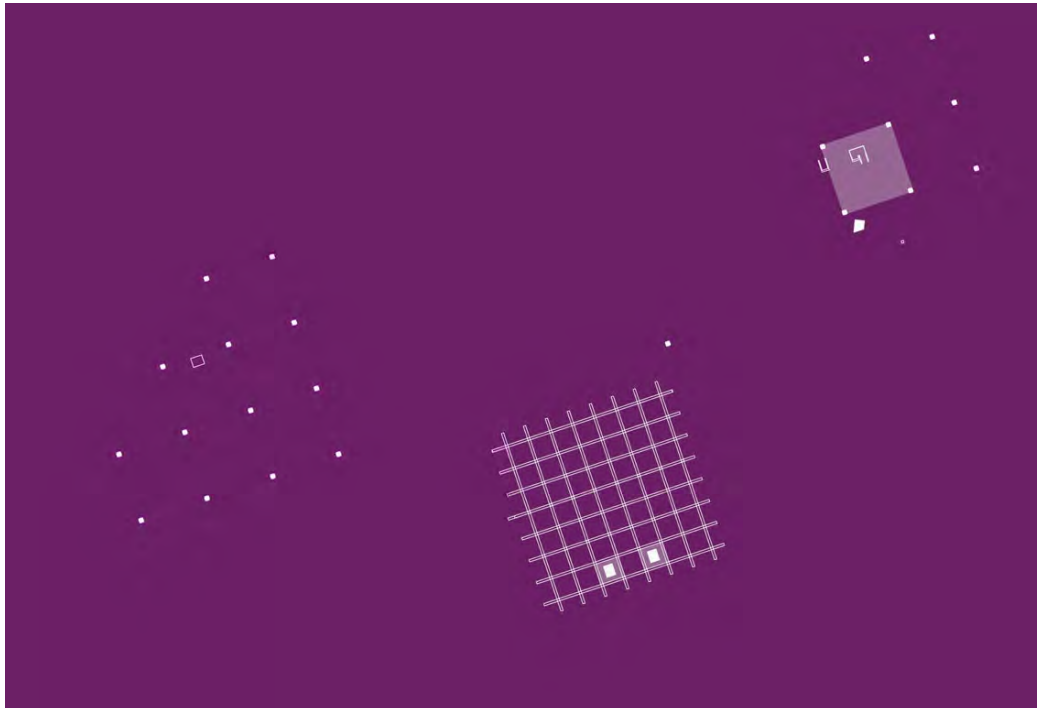
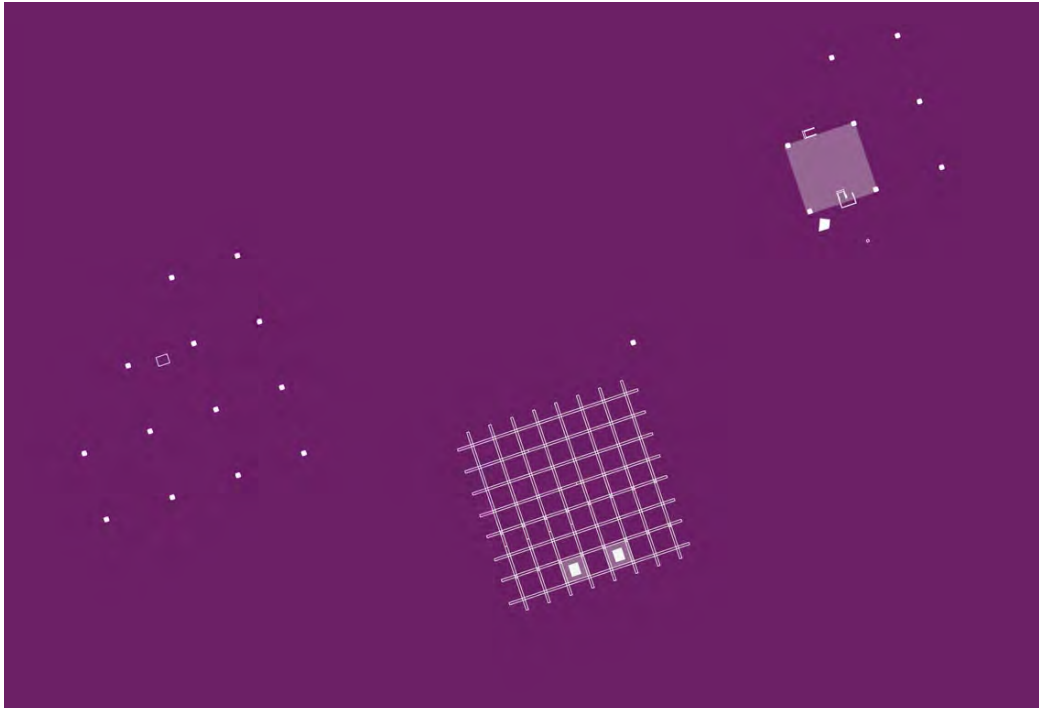
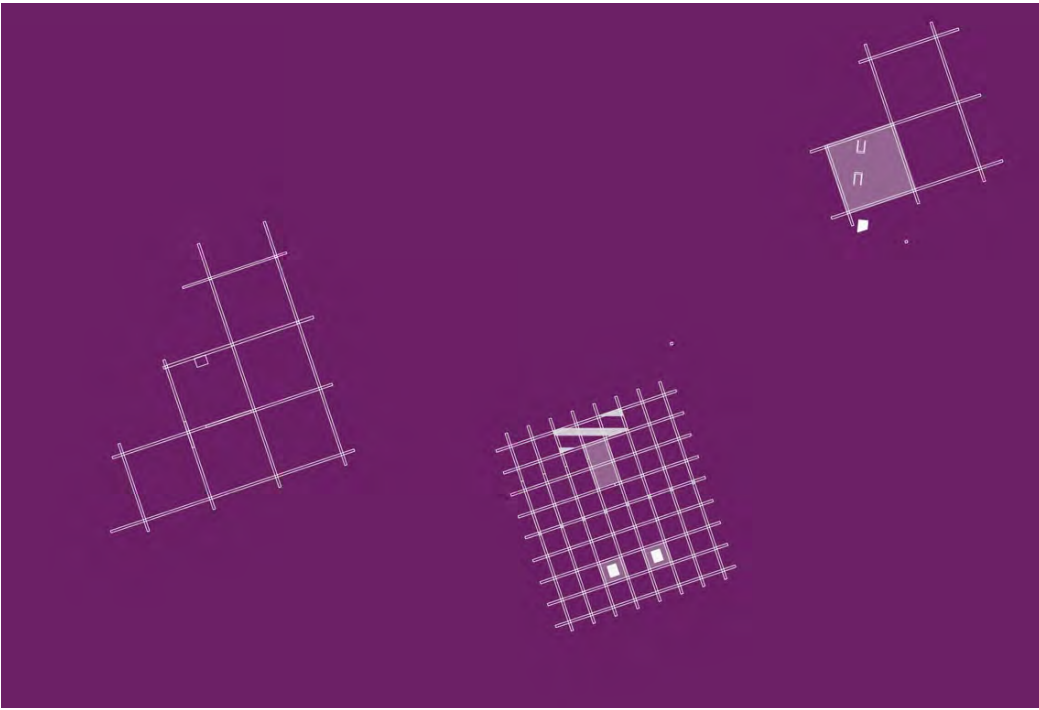
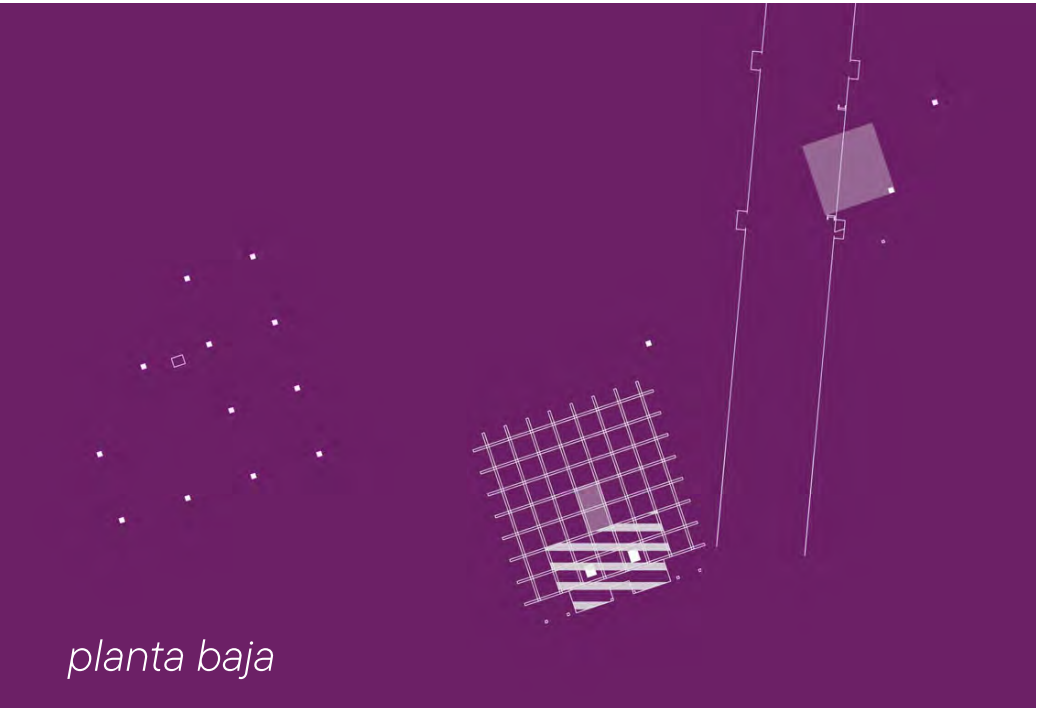
una entrada vertical articulada



infraestructura permanente de circulación



el espacio disponible



Planos de estructura con espacios iniciales mostrados

planos creados a intervalos de 5 m

0 100m 200m

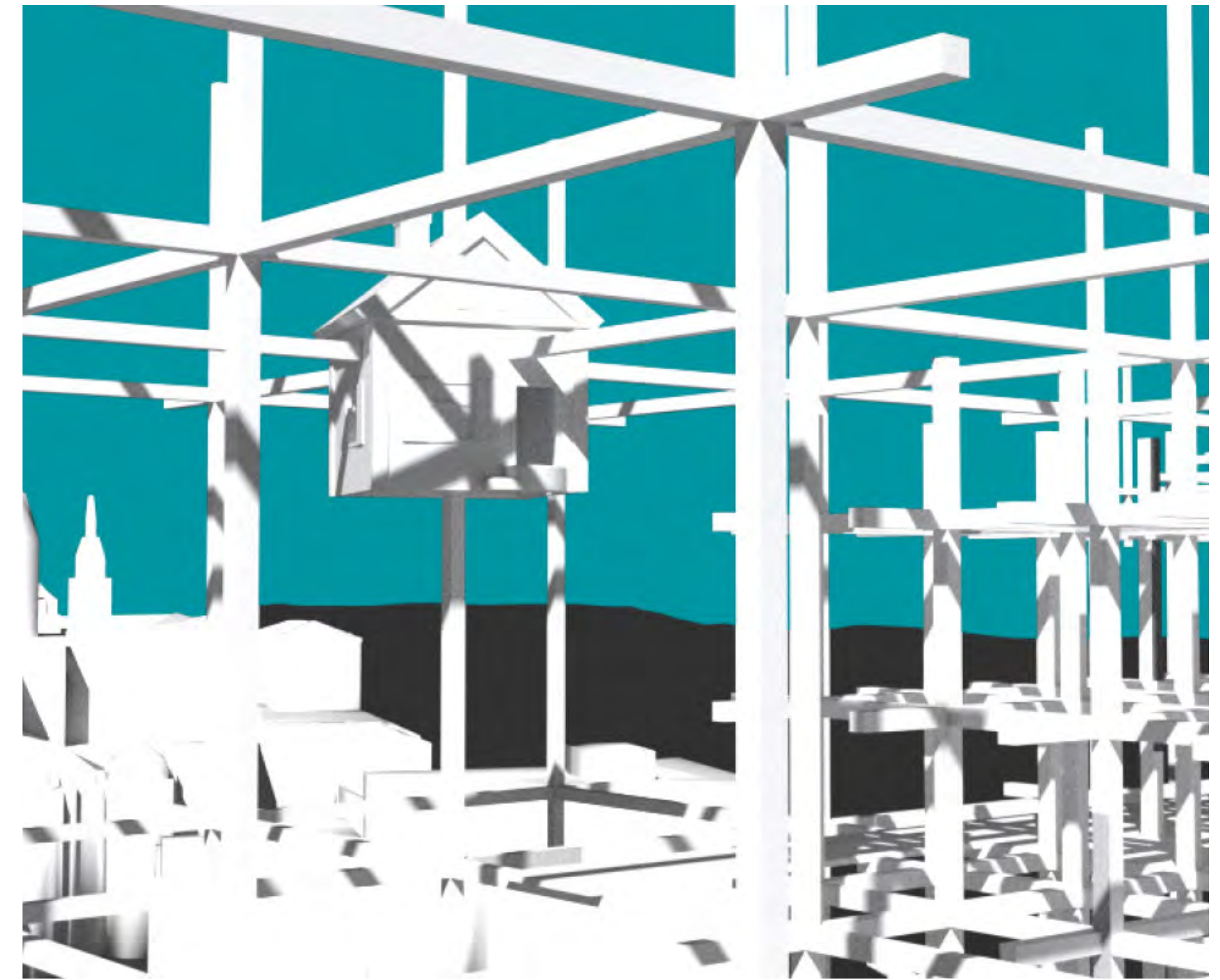
espacio de circulacion

espacio publico sin funcion

[illegible]

Building in the air means some kind of developed framework. Obviously, there are frameworks on a ground plane; we live in buildings based on a structure, aligned to a street network that is in turn related to other networks of transportation, towns, cities, highways, and borders. But when living at height, every action is mediated so strongly by a physical framework that keeps us in the air, separates us from those more recognisable frameworks of the ground. This framework is at a recognisable, tangible scale to us, one of girders and pillars and supports, whether it is a skyscraper or a rail bridge. You could say that a framework of this sort acts as a constant physical reminder of the energy involved in sustaining urban forms and urban living, more so than the often invisible or low-profile frameworks of the ground; they support your weight but also intrude, limiting where and how you can move, build and live.

As a framework, a square grid is the most familiar in both two- and three-dimensional space. It is the most simple and regular arrangement of perpendicular lines, defining space into a series of vertices and right angles, forms that are comfortable to build with and conceptualise within. Hence, the city block grid, squared graphing paper, the coordinate grid. Structuralists like Hertzberger and van Eyck used the square grid as the base for many complex, polyvalent buildings. The square grid has a simplicity of form that is semiotically neutral, whilst allowing for a wide variety of expression to occur. This form, uncommitted and full of potential, can be well utilized in the context of building in the air. The primary way in which to affect the square grid's neutrality and give it phenomenological meaning is through scale: the 1x1cm grid is used for maths homework, the 5x5m grid is used for bridges and skyscrapers; scale suggests use, and determines the possible forms expressed from the grid.



Kazuo Shinohara,
house on a curved road

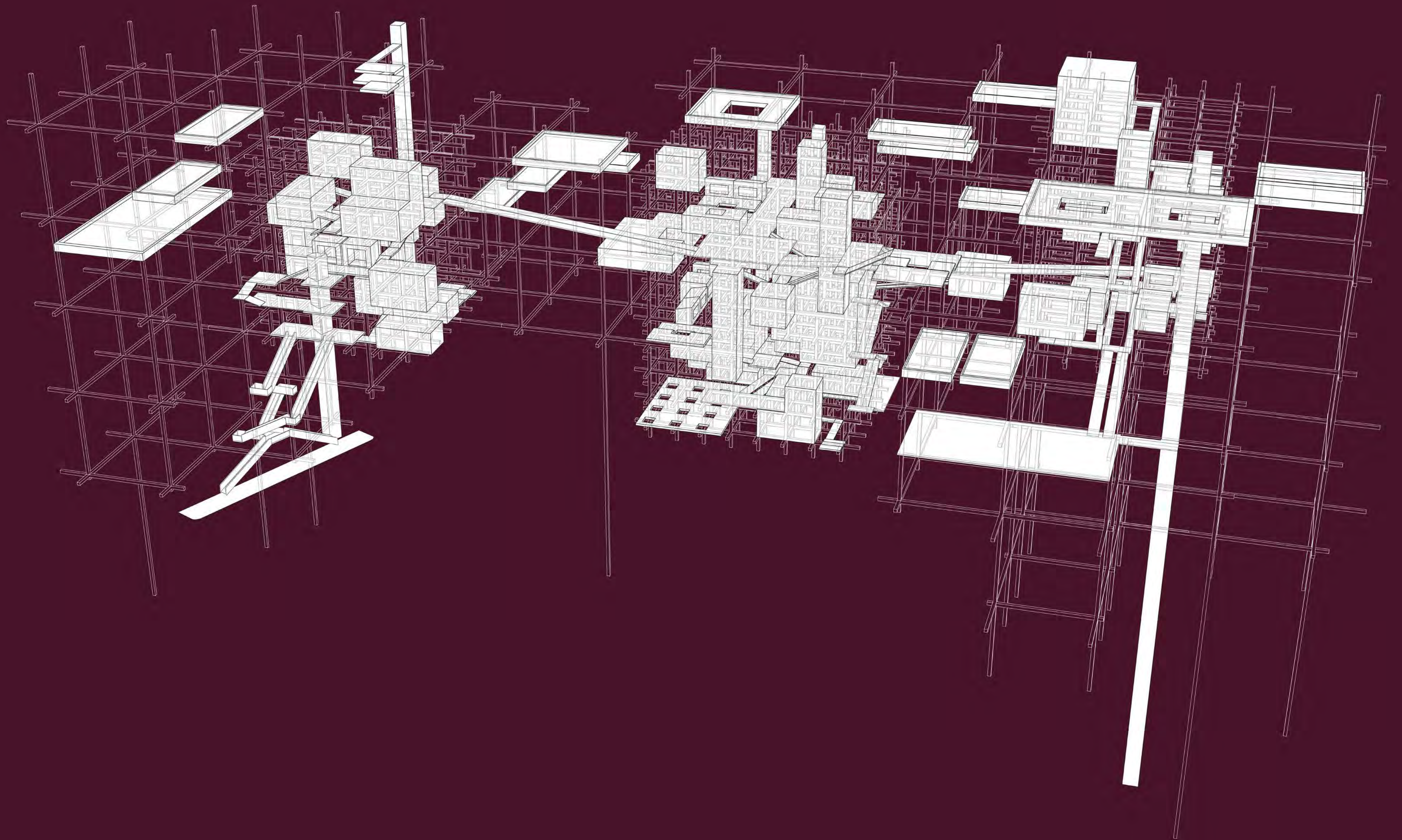
One problem I've been wrestling with is how a large, three-dimensional grid in the sky is experienced (and thus represented) in an architectonic manner. A grid is easily shown in plan and section: a series of perpendicular axes that intersect regularly. But how does that translate into a walk to the shops, or a view from a bedroom window? A grid is experienced best in its traversal: the following of straight axes and the regular crossing of perpendicular axes. In the third dimensional grid, it can be seen as layers of mediation between you and the ground, and you and the sky, stretching above and below you, filled with buildings, paths, escalators, lifts and most importantly people. This is a complex experience. You are at once disconnected from the ground but more aware of what you stand upon, and exposed to the built environment in all directions: below you are roofs, and above you, floors. There is a spatial disconnect between you and others, who may be able to spend almost all their time on a completely different vertical level than you (not just living as in high rise flats, but shopping, visiting friends, going to the park and to work). This means that the design of space like these must encourage vertical commutes as much as we encourage horizontal commutes on the ground, with pavements, crossings, underpasses swapped for escalators, ramps, stairs and elevators. If this is done, the experience of living in the air becomes one of freedom, more so than the ground. Imagine, light dapples your path through the branches of an oak tree twenty metres above you, so you hop on an escalator and take in the sun from a park suspended a hundred metres above the city centre, before riding a lift another storey up to visit family for dinner.



How do you sum up this experience of living in a grid into an architectonic image, or even series of images? With difficulty, and with unconventional methods. Depicting journeys and stops, pathways up and down the structure could be valuable, showing the structure as a system of interlocking relationships and buildings that creates experience, in the whole. Dividing the work into architectonic drawings that depict form, and pictorial representations of experience, although not the most engaging, is also a simple method to communicate both aspects. A combination of the two is my strategy going forward.

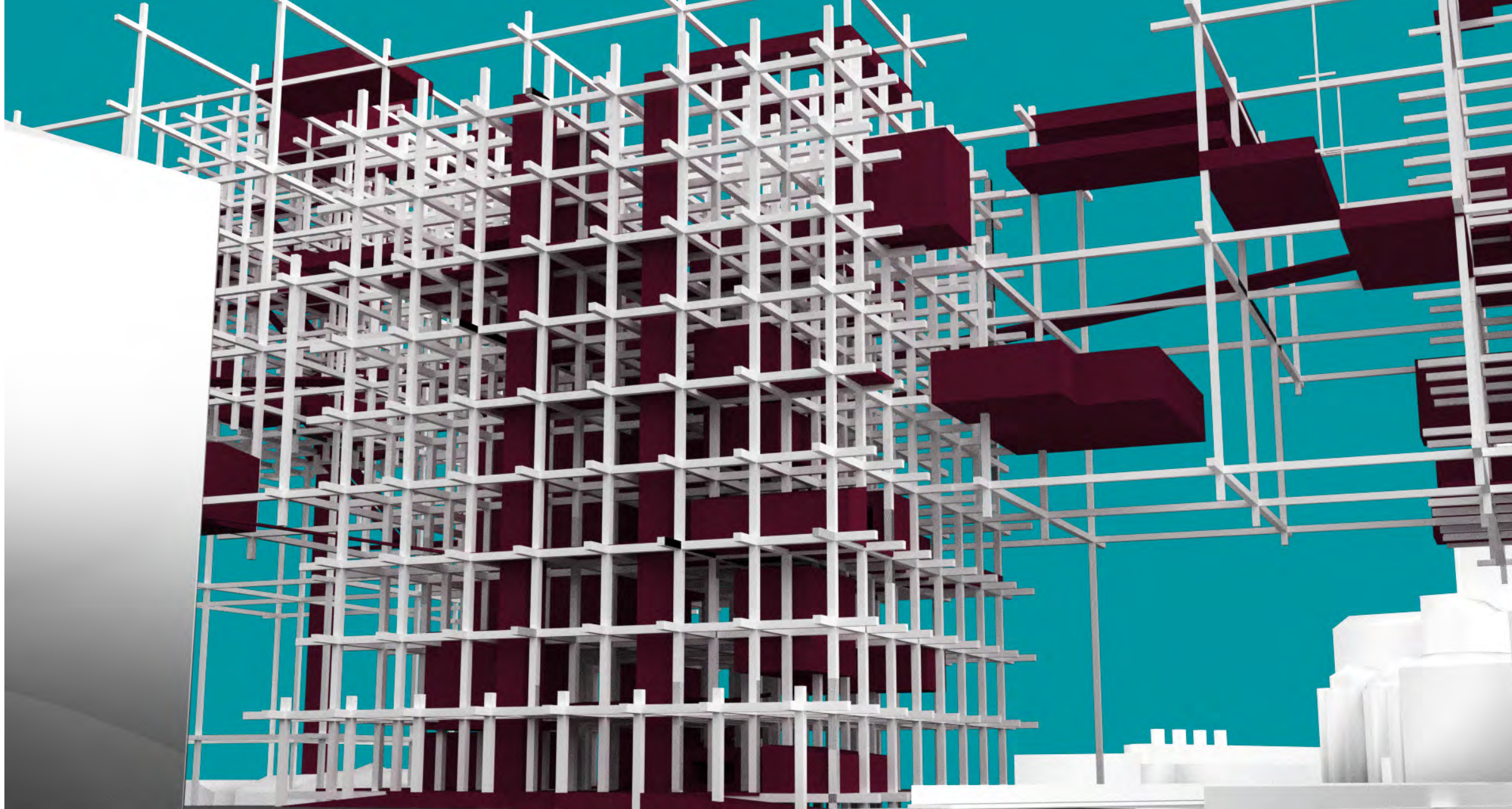
Building onto a grid framework in the air can generate experiences that are new and liberatory, that encourage movement and moments of socialisation between strangers, friends, and neighbours. It can generate experiences that are dense and meaningful, where you can look above and below you to see sights of the city, to see a vibrant urban fabric existing and taking place all around you. More than that, it can generate new ways of looking outward, and experiencing the city at large in a new way, from a different vantage point and a different form of living.



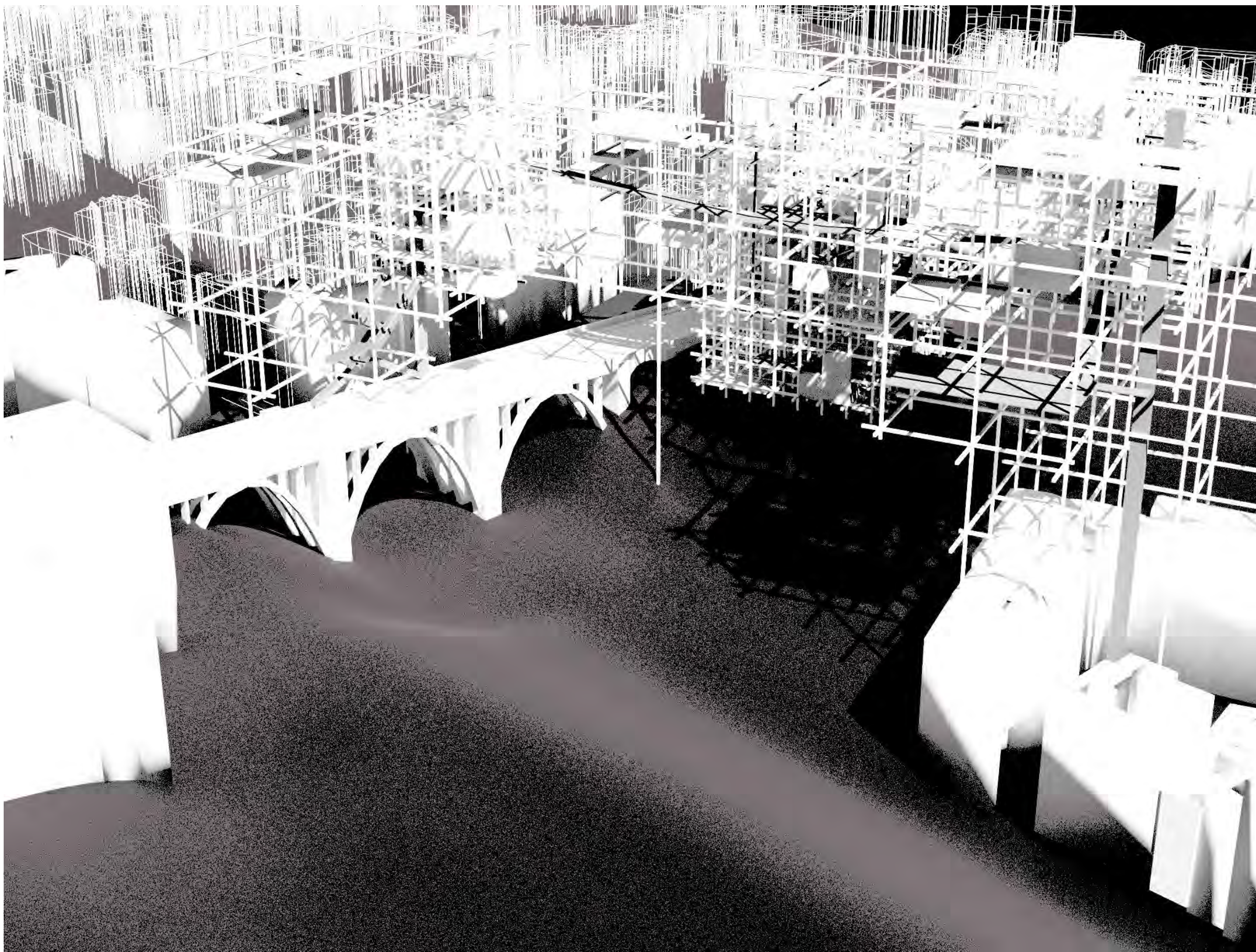


un red lleno

- * Con espacio para 250 residentes
- * Viviendas de corta estancia
- * Huertas para la producción agrícola
- * Servicios y espacios públicos
- * Conexiones a nivel del suelo
- * Espacio para crecer

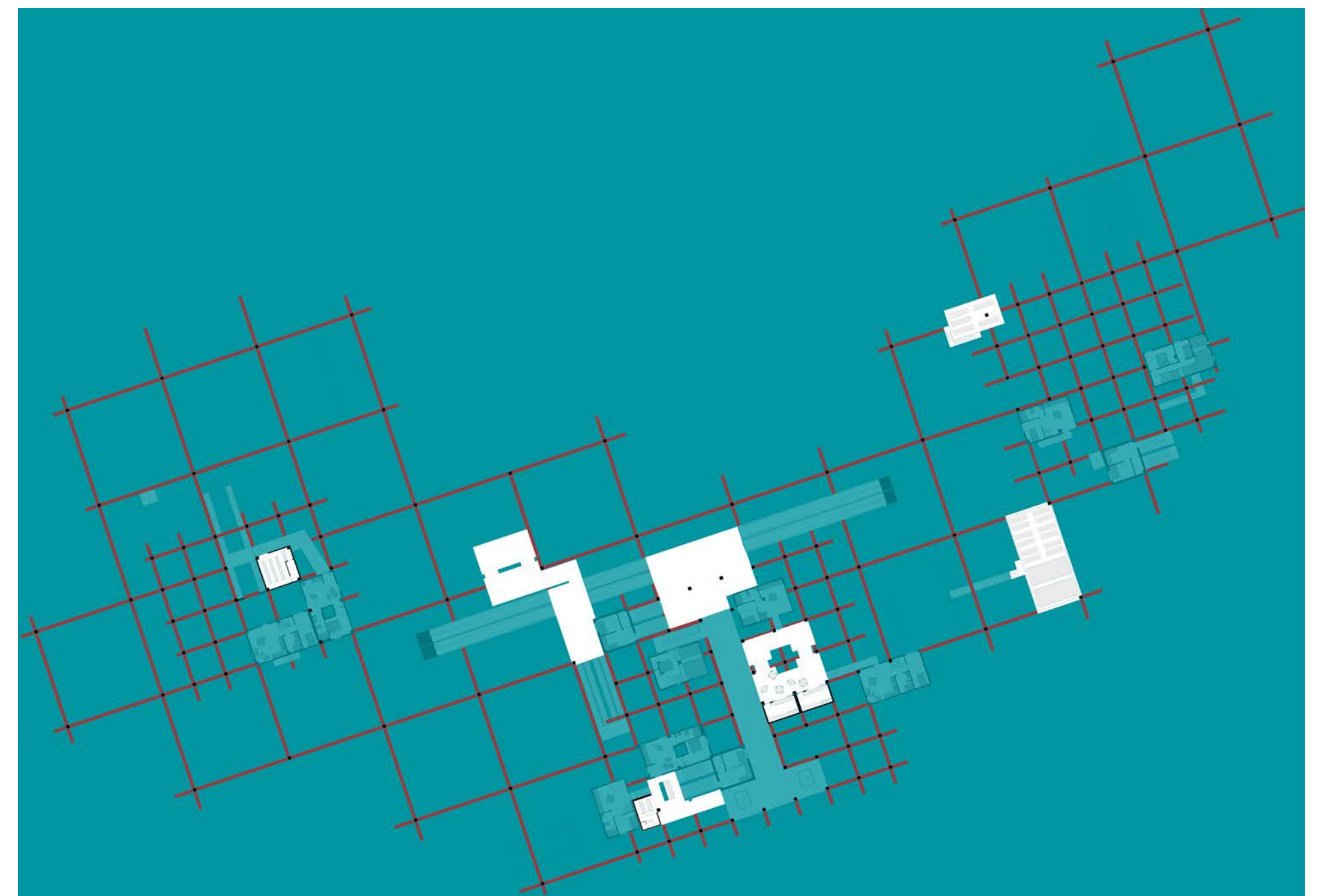
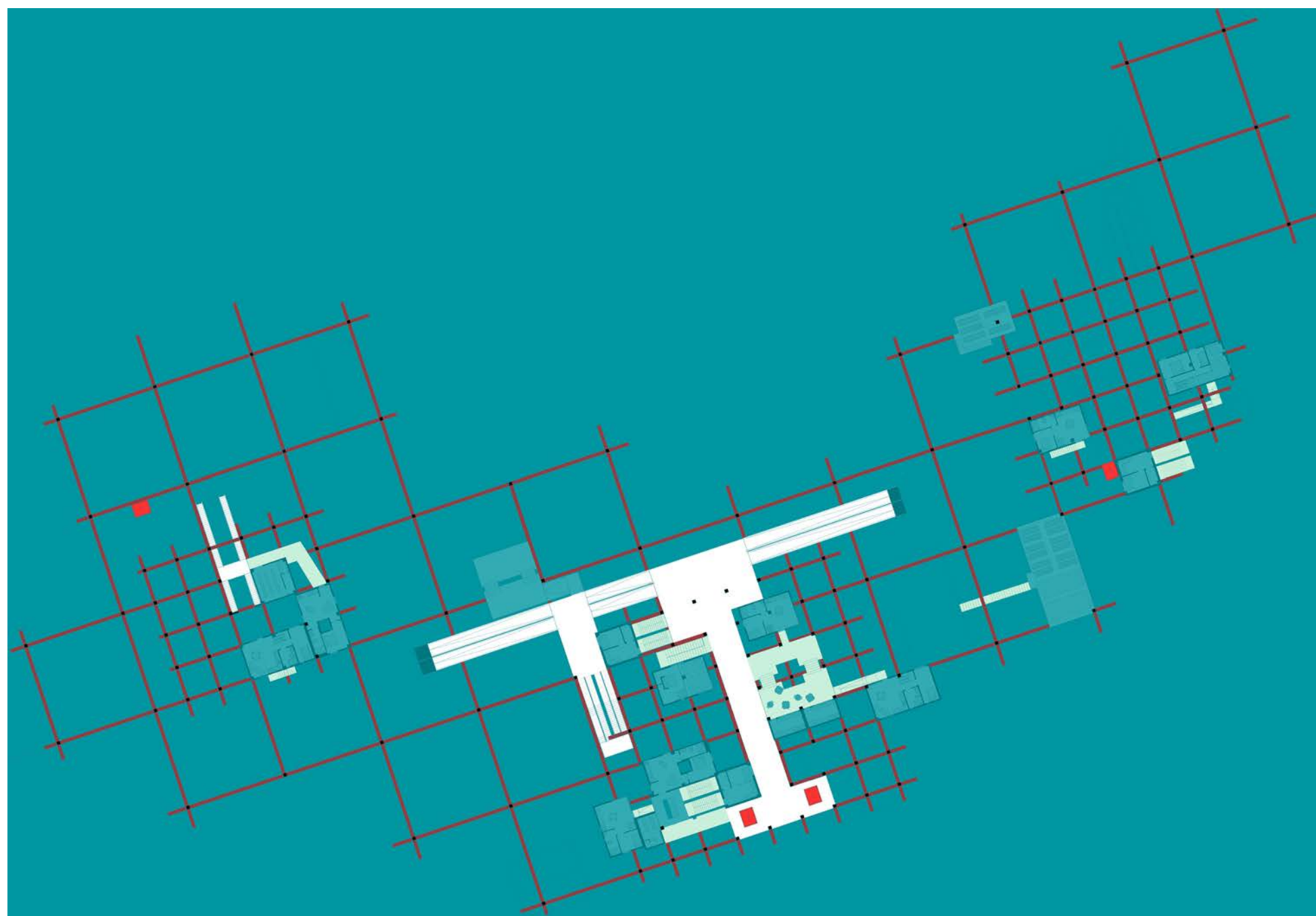


El sitio está poblado de forma heterogénea: la esperanza es crear barrios en el cielo que fomenten nuevas relaciones sociales adaptables e interacciones únicas entre los residentes. Cada vivienda y sendero tiene una ubicación única, creando una densa y compleja red de interacciones físicas, fenomenológicas y sociales entre las personas y el entorno construido. Y lo más importante, estas redes son moldeables y crean una estructura dinámica en su esencia.



The site is populated heterogeneously - the hope is to create neighbourhoods in the sky which encourage new, mouldable social arrangements and unique interactions between residents. Each home and path is uniquely positioned, creating a dense, complex web of physical, phenomenological and social interactions between people and the built environment. Most importantly, these webs are malleable and create a structure that is dynamic to it's core.





plano: rutas mayores, caminos secundarios, ascensores \ circulacion

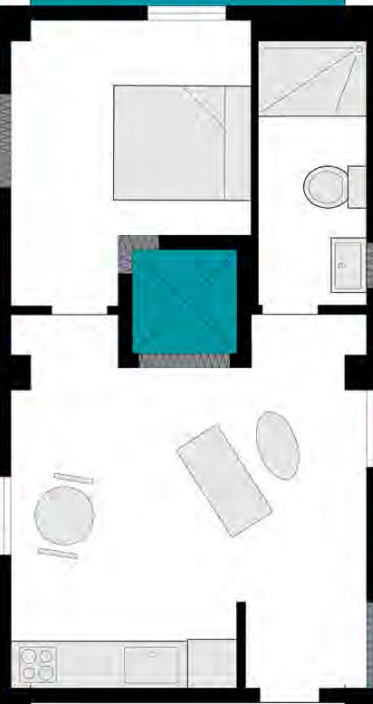
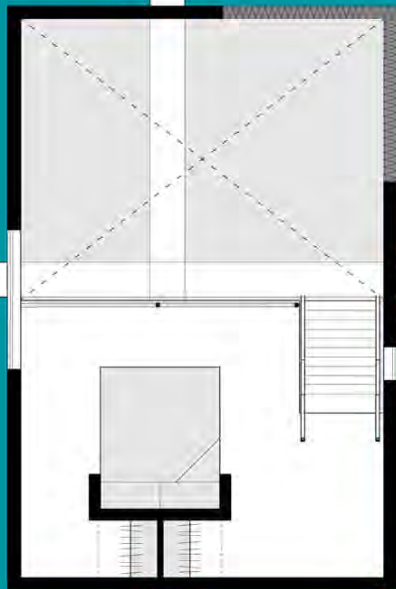
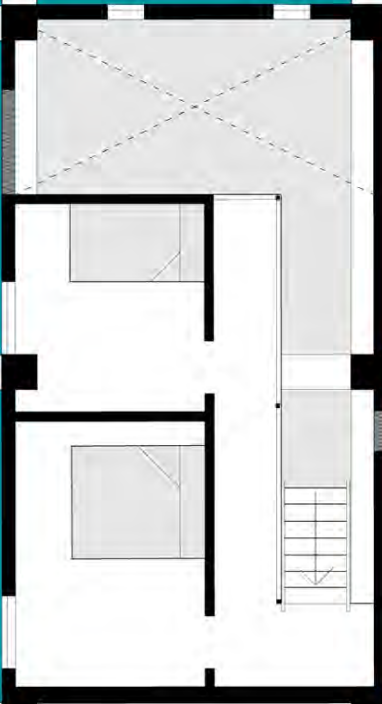
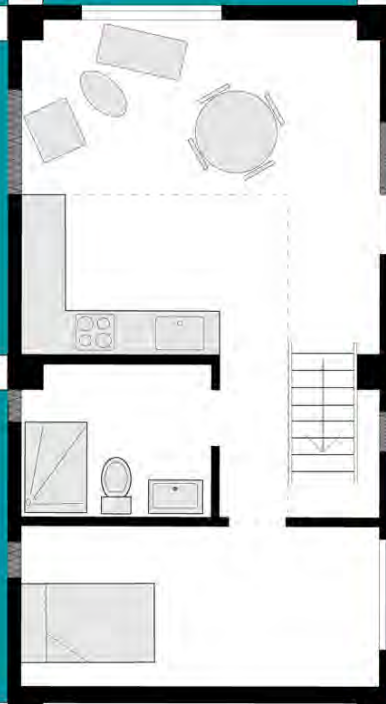
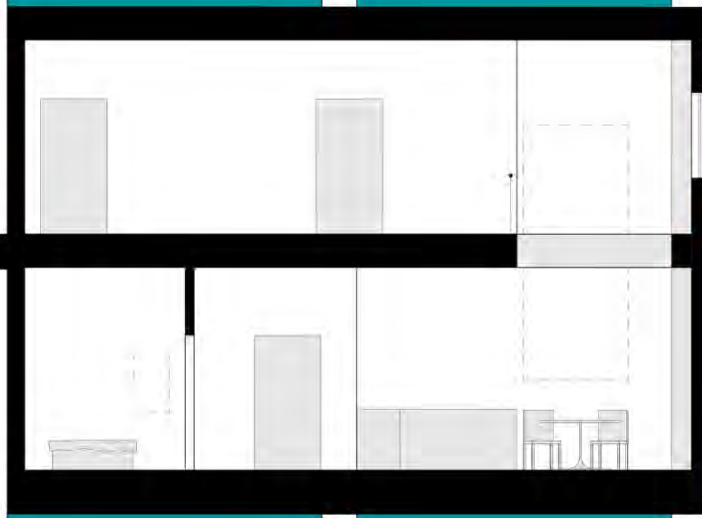
plano: casas, espacios privados

plano: plazas, parques, miradores, tiendas, huertas

plano: tres dormitorios, dos dormitorios, uno dormitorio, estudio y hostel

[illegible][illegible]

Tipología: casas unifamiliar

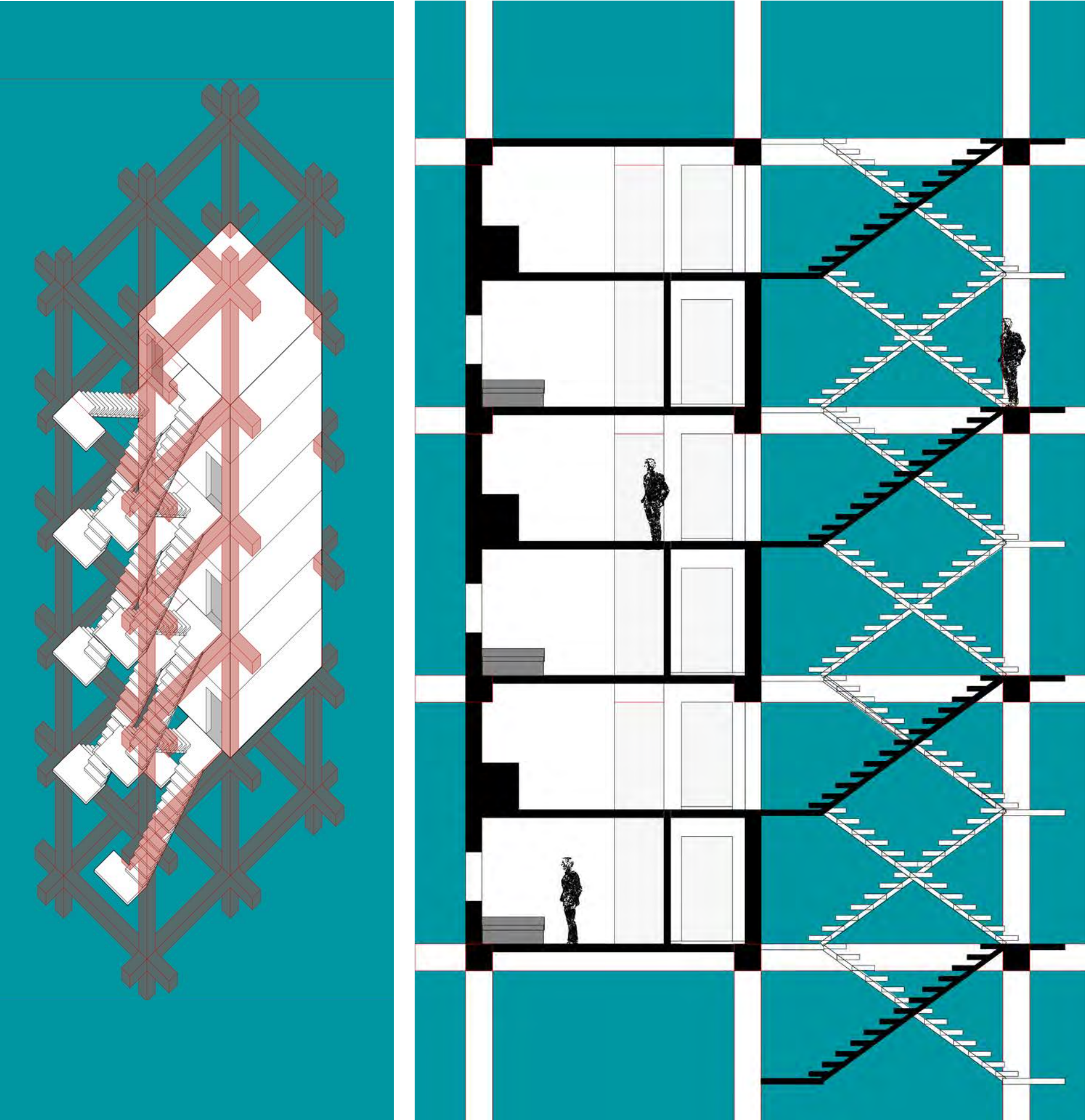


area: 88m2
huella: 55m2
dormitorios: 3

area: 69m2
huella: 46m2
dormitorios: 2

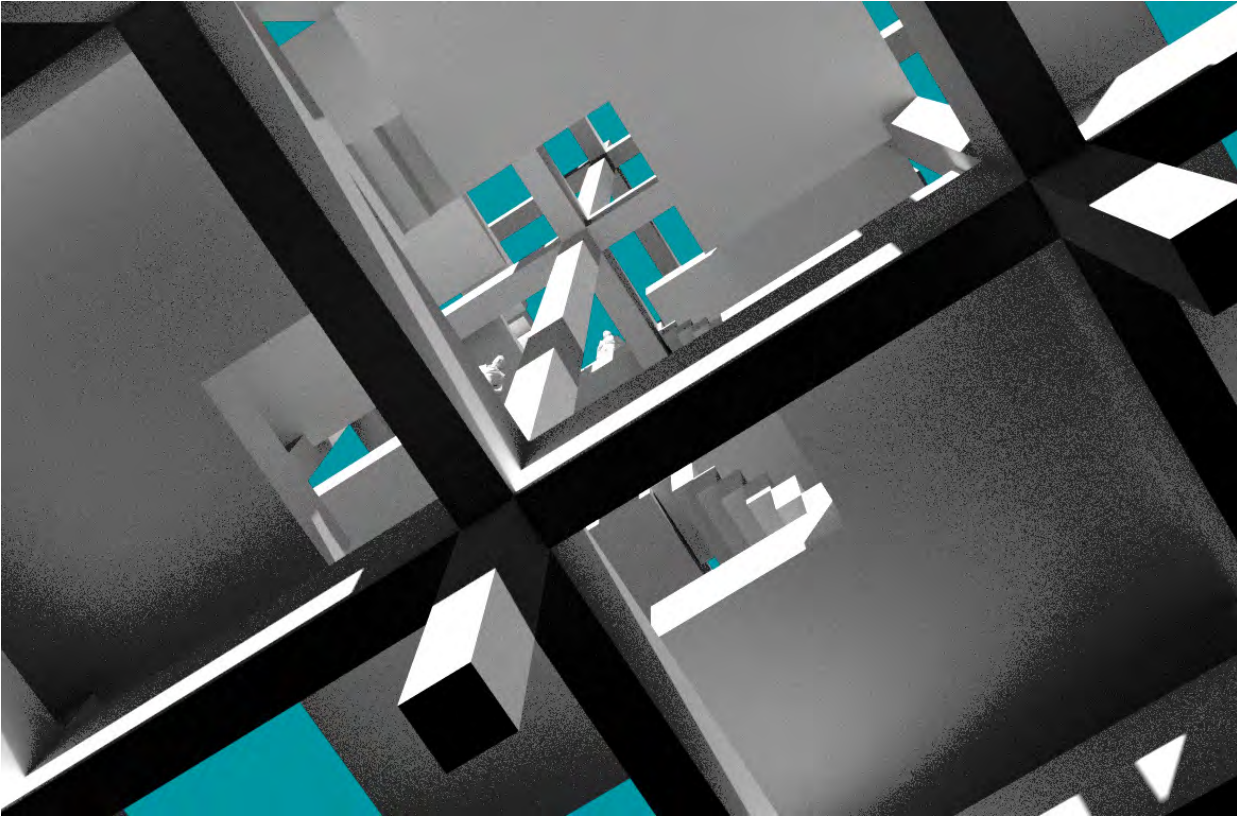
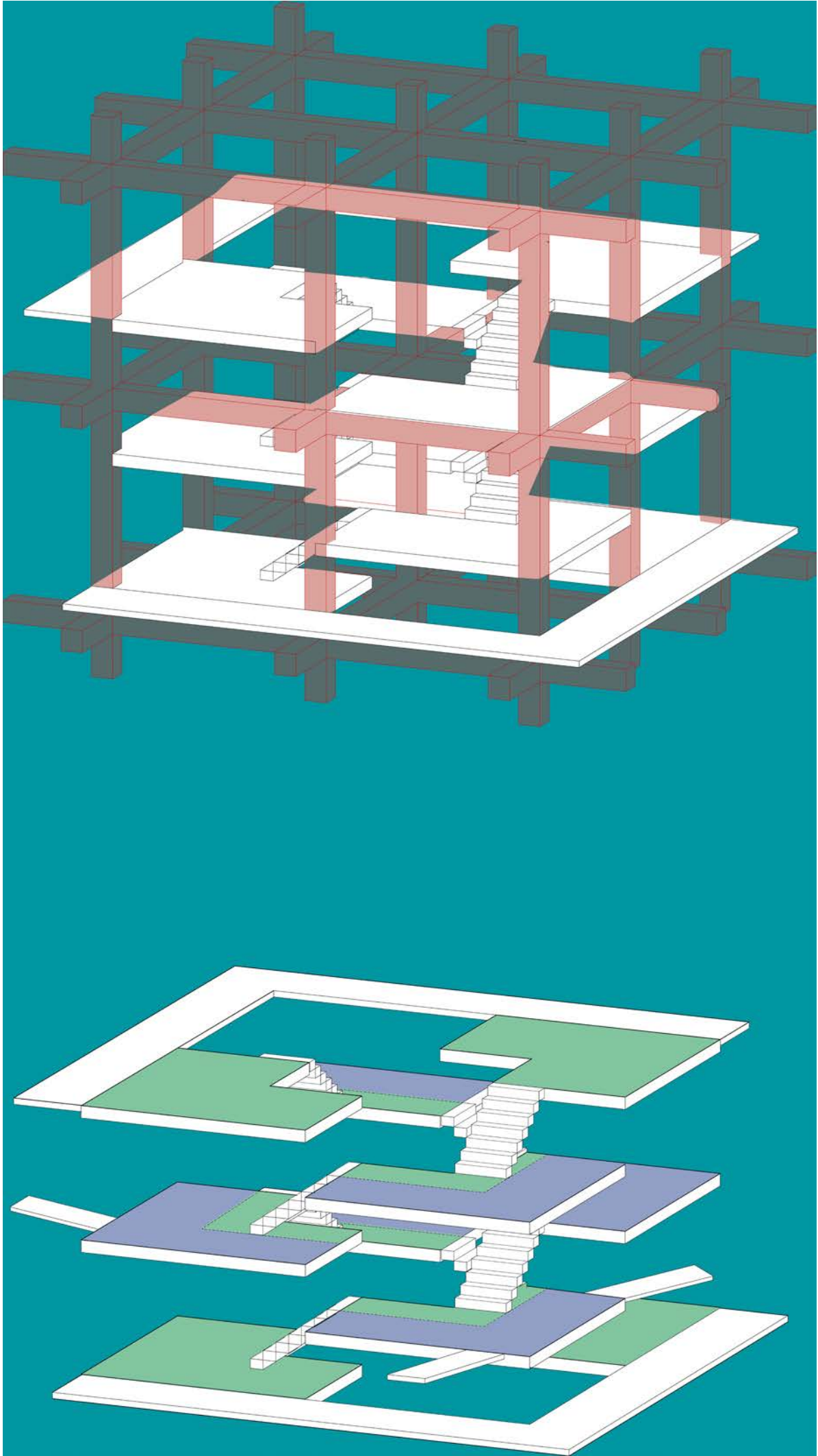
area: 53m2
huella: 53m2
dormitorios: 1

Tipología: estudios/hostel



area: 150m2
huella: 25m2
poblacion: 6-12 personas

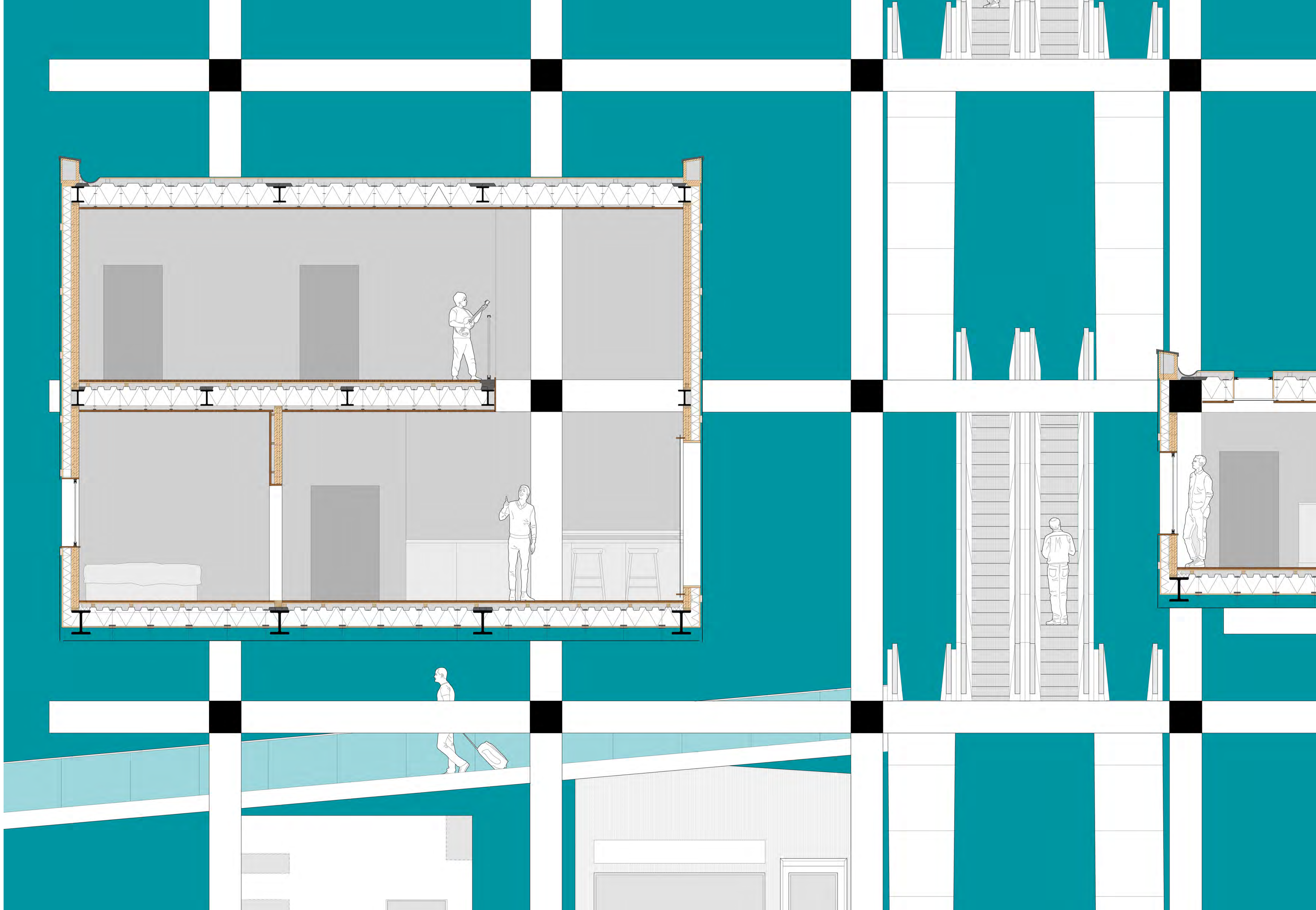
Tipología: plataforma por vivienda colaborativa



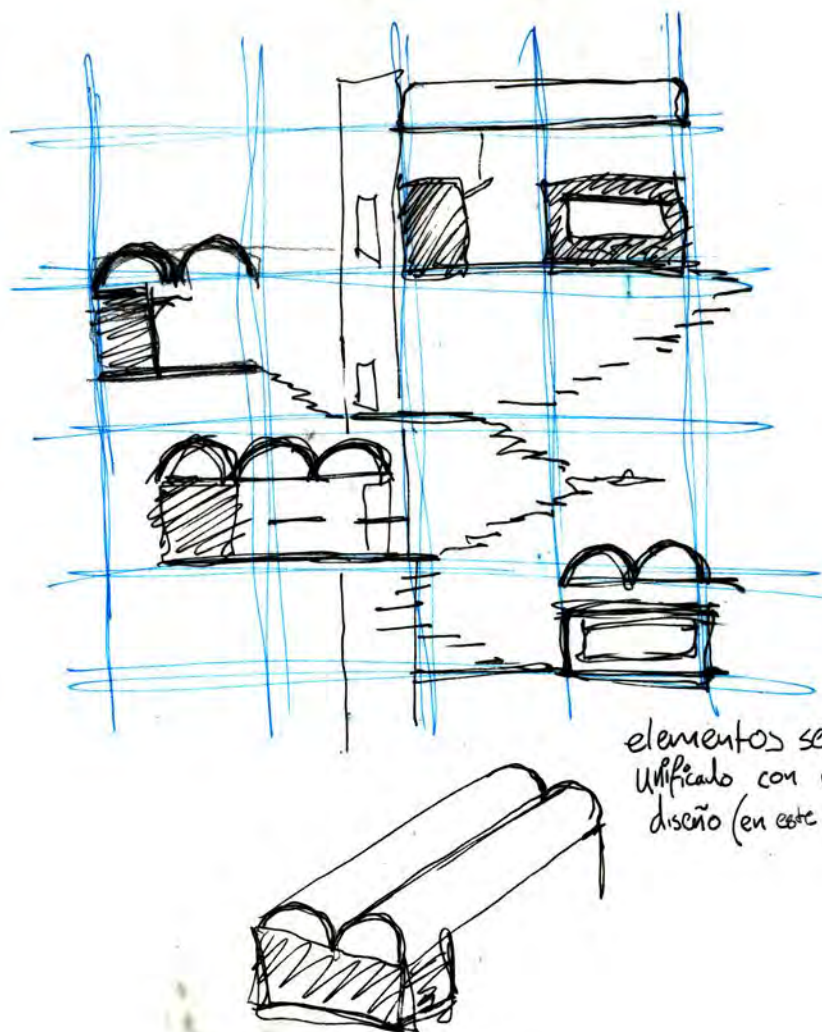
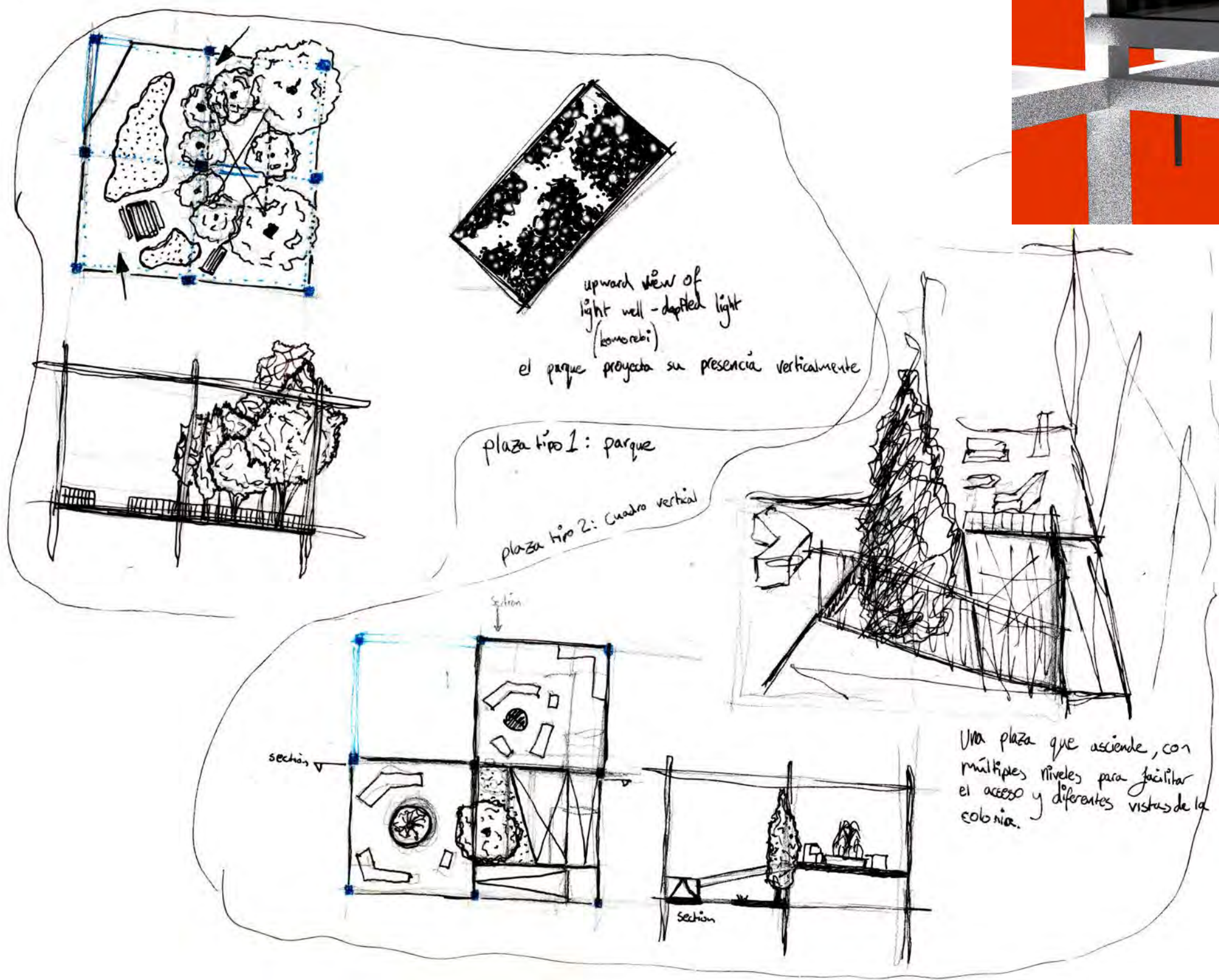
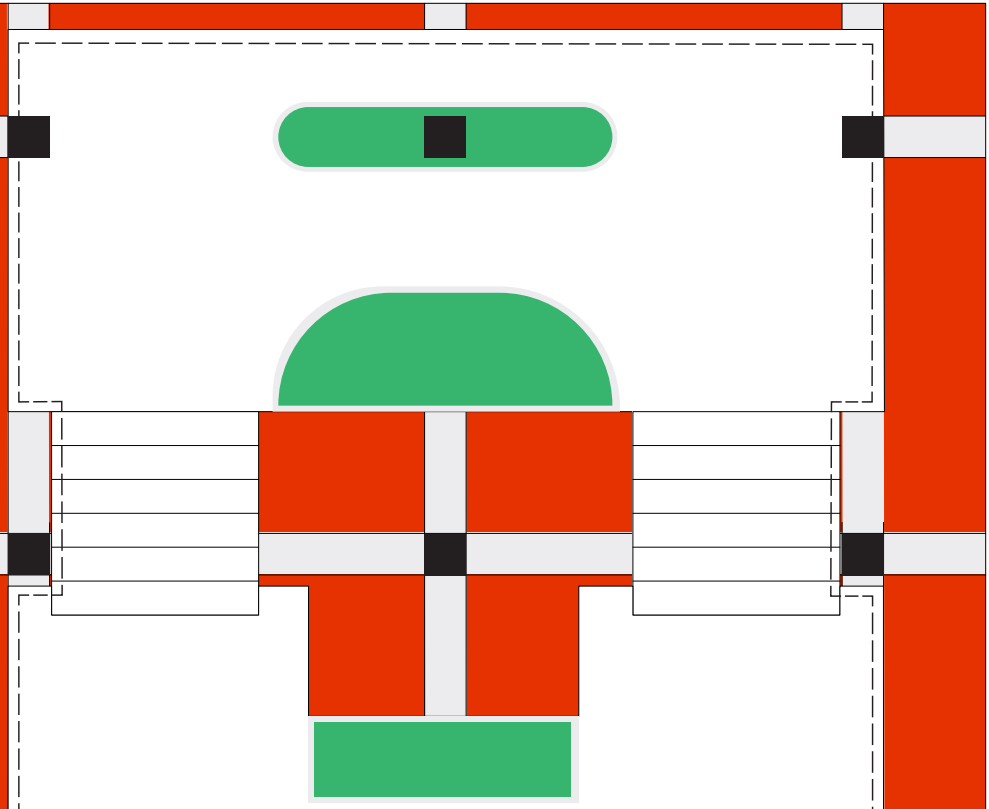
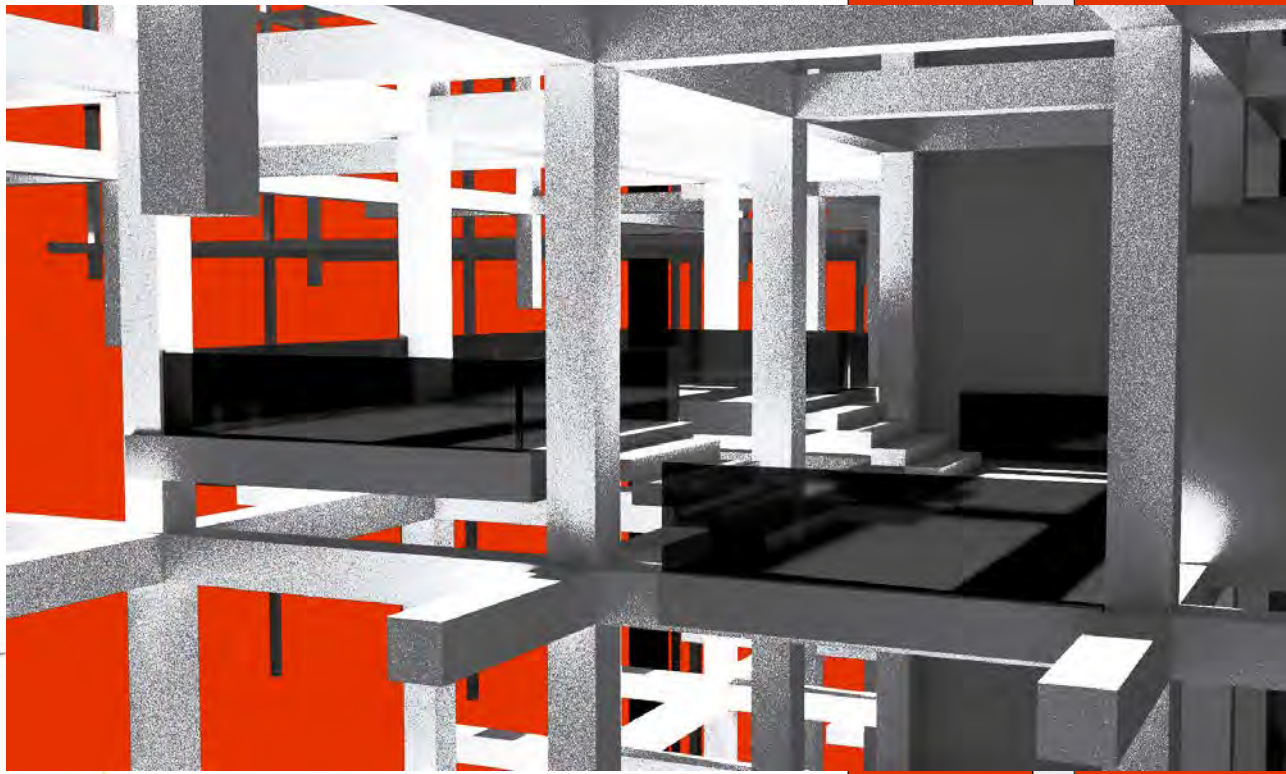
Un espacio inmerso en el aire, abrazando la red.
Es capaz de expresarse de muchas maneras,
personalizado para sus habitantes. Un espacio
que se puede reutilizar y modernizar varias veces,
reduciendo así las emisiones de carbono.

area: 230m2
huella: 92m2
poblacion: 12-20 personas

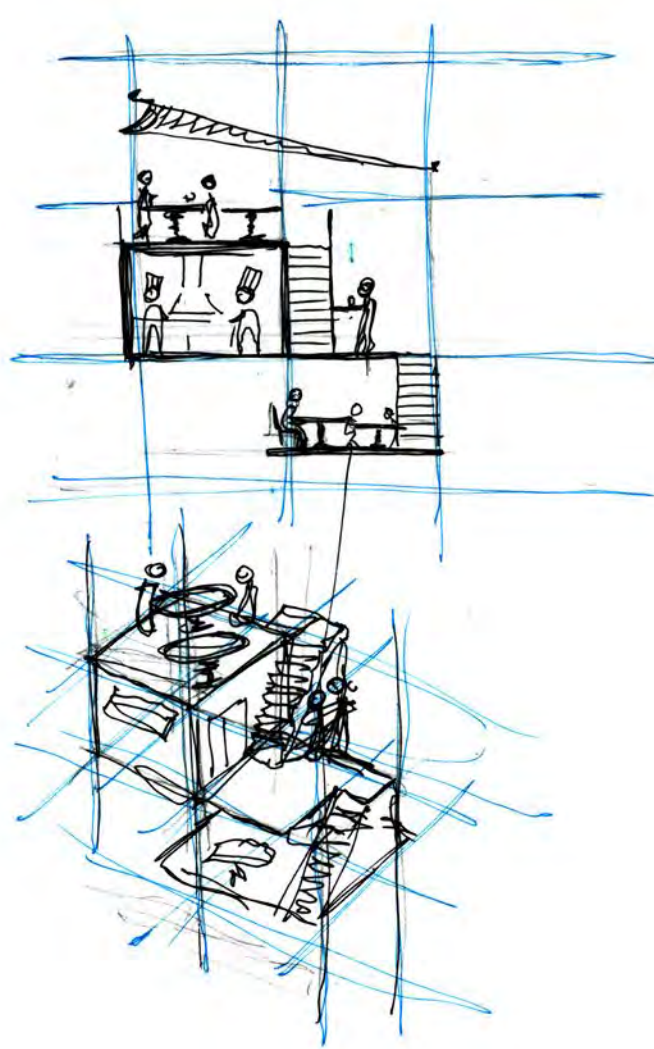
- elementos basicos de ordenacion
- espacio comunal
 - espacio privado
 - entradas y salidas



estrategia espacio publico



elementos separados, pero
unificados con un elemento de
diseño (en este caso, bordes de cañón)



estrategia de producción agrícola

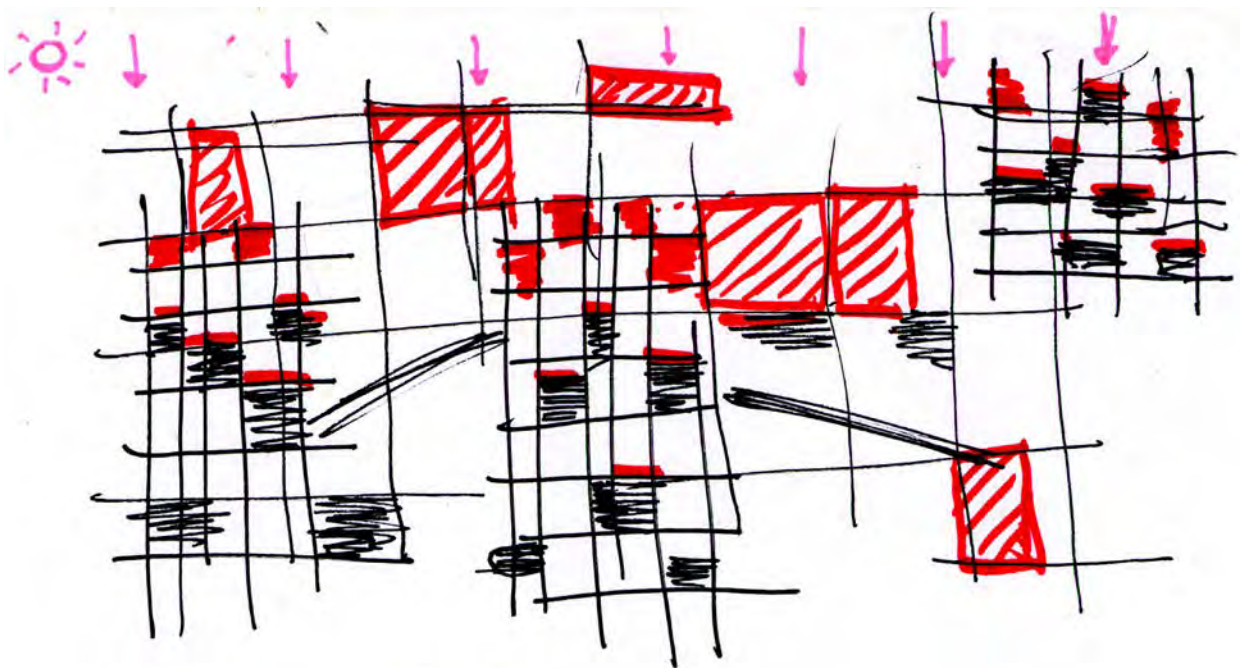
producción de alimentacion con baja emisiones

Sistemas mixtos de acuaponía sin suelo – sistemas equitativos y difusos de producción de alimentos de bajo mantenimiento: una parcela en el cielo para cada residente. Se utiliza en diversas escalas en áreas densas y en espacios al aire libre.

Mixed systems of soil free aquaponics – equitable, diffuse systems of low maintenance food production- an allotment in the sky for every resident. Used at various scales in dense areas and in open air spaces.

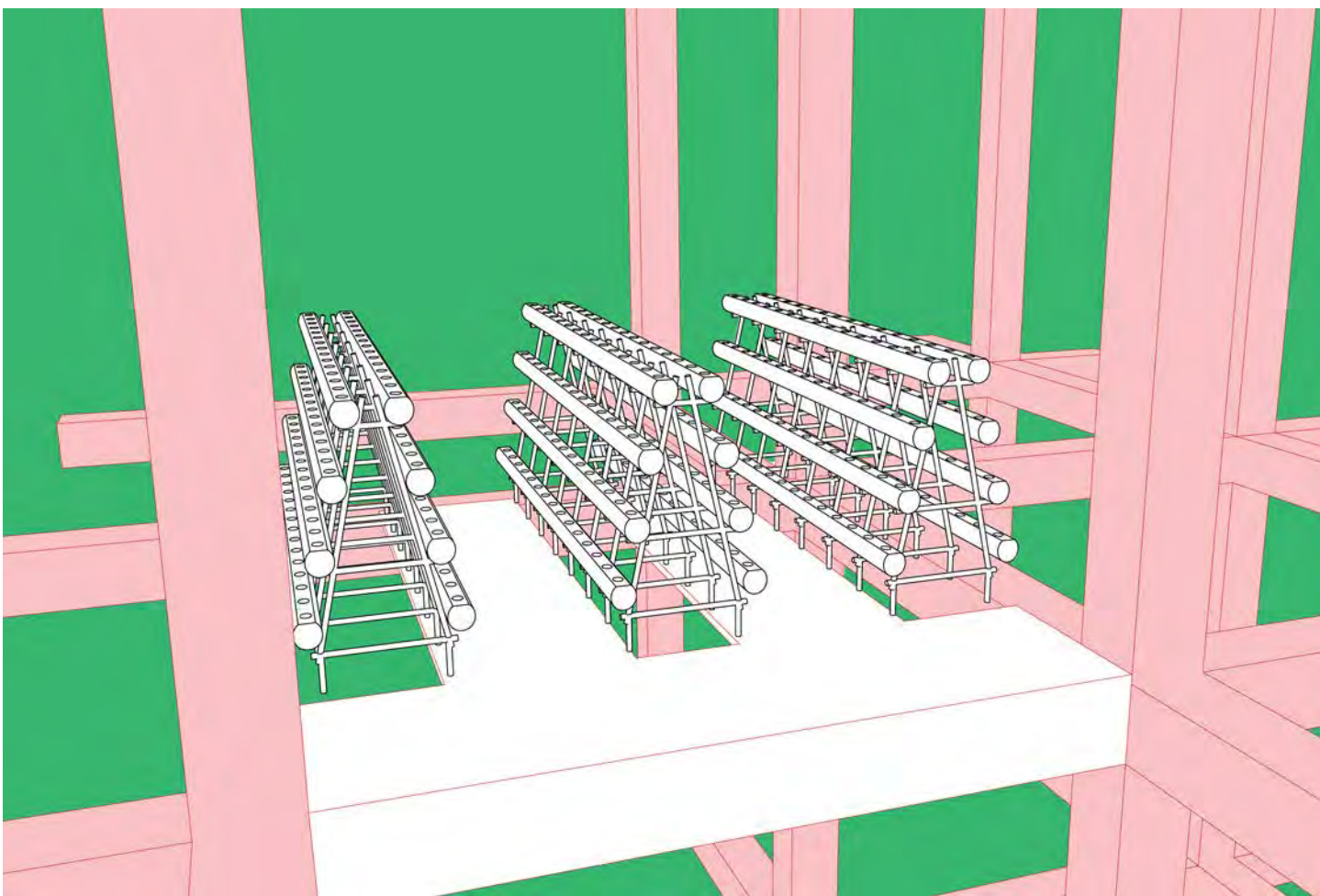


precedentes: a escala individual - WFP Pilot de Acuaponía familiar en Lima, Perú
a escala semi industrial - Urban Farmers, De Schilde, Países Bajos

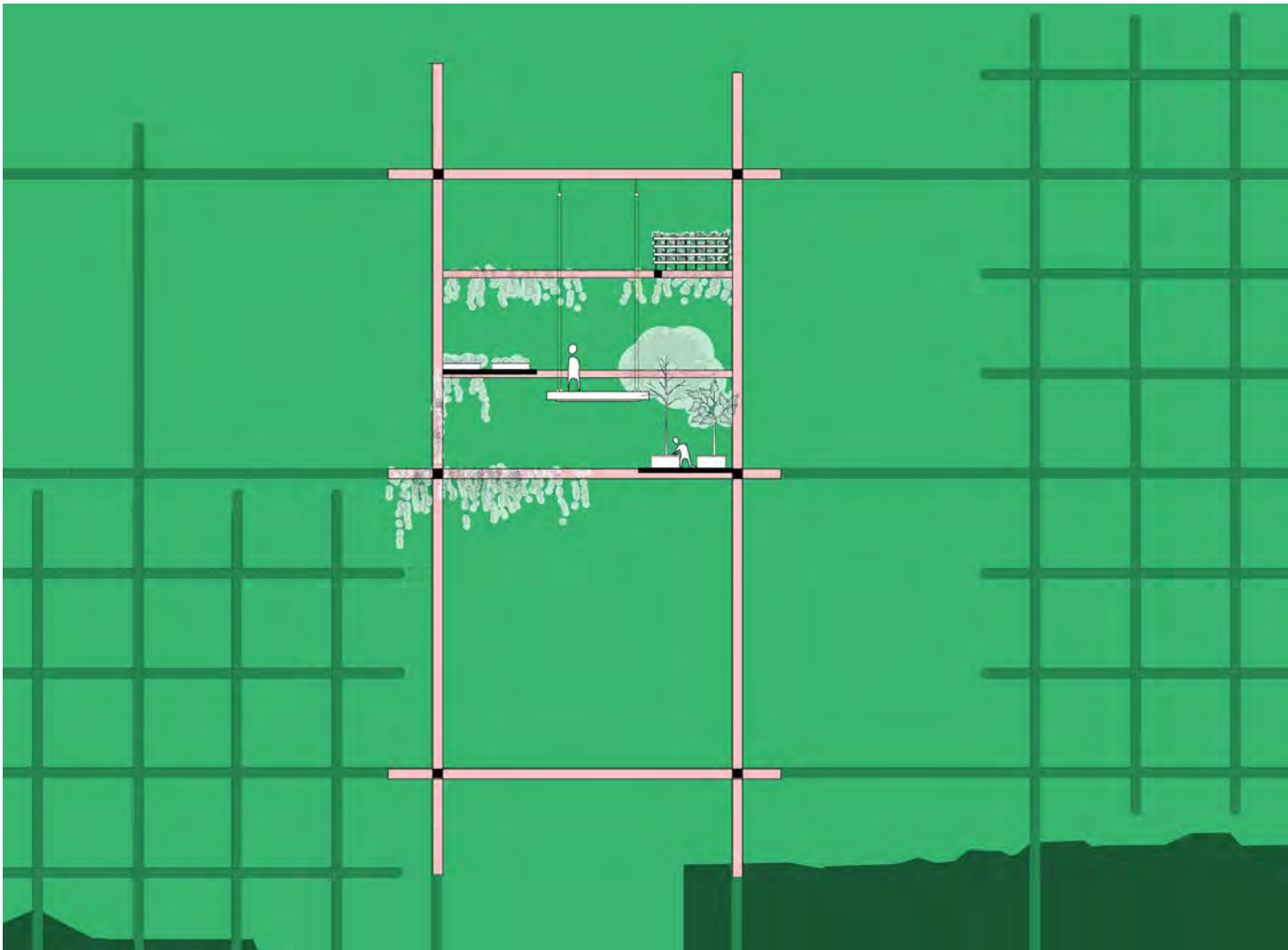


espacios por huertas

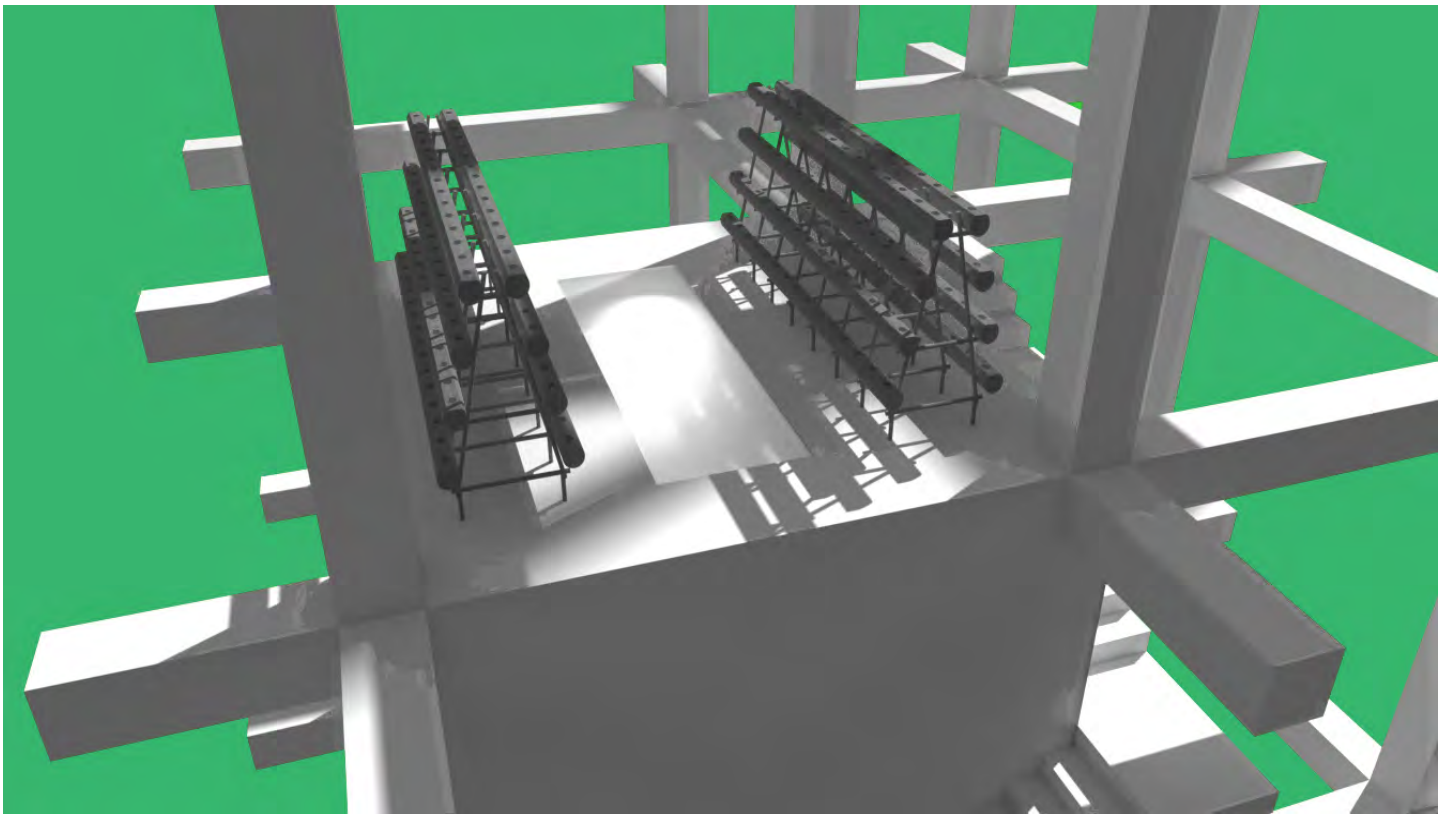
estrategia de ubicacion



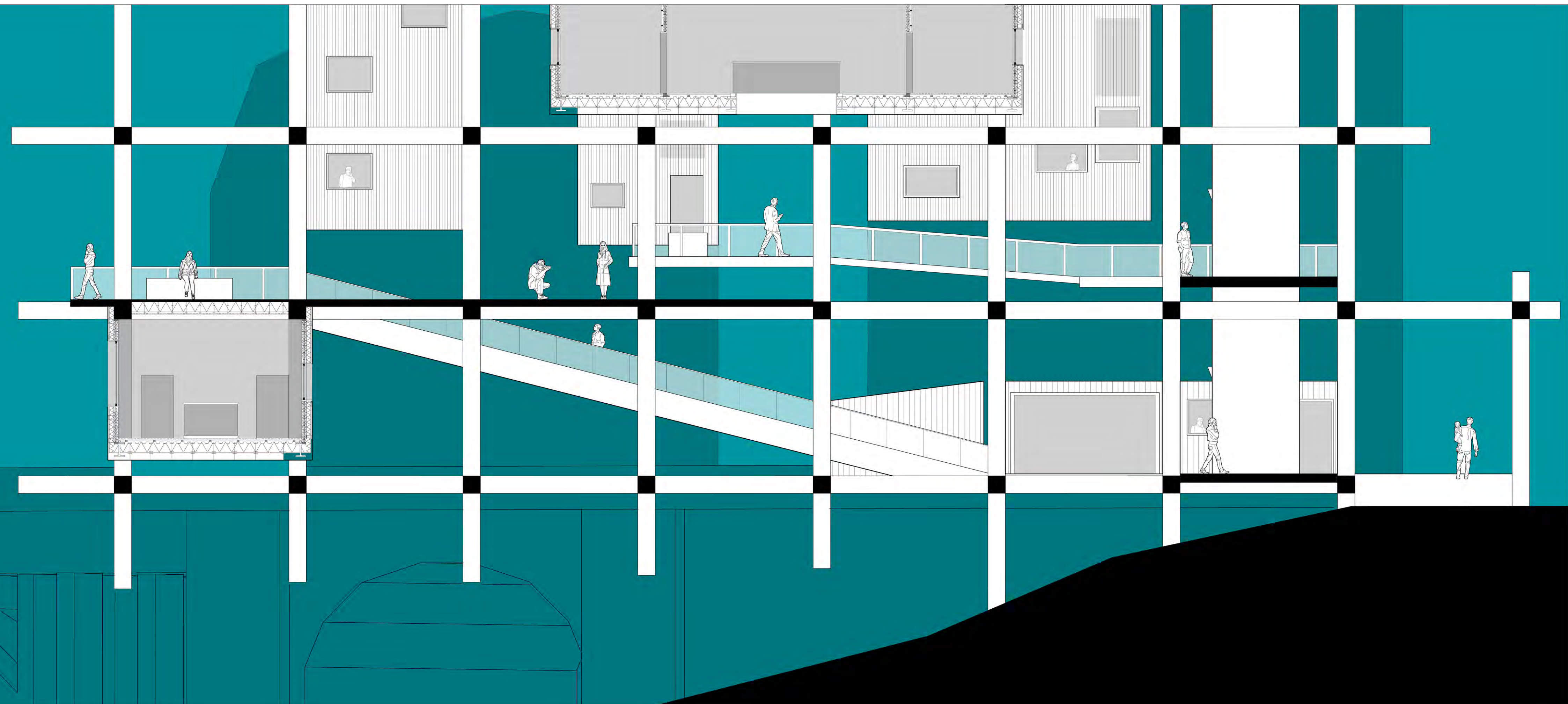
huerta pequeña en el red 5x5m



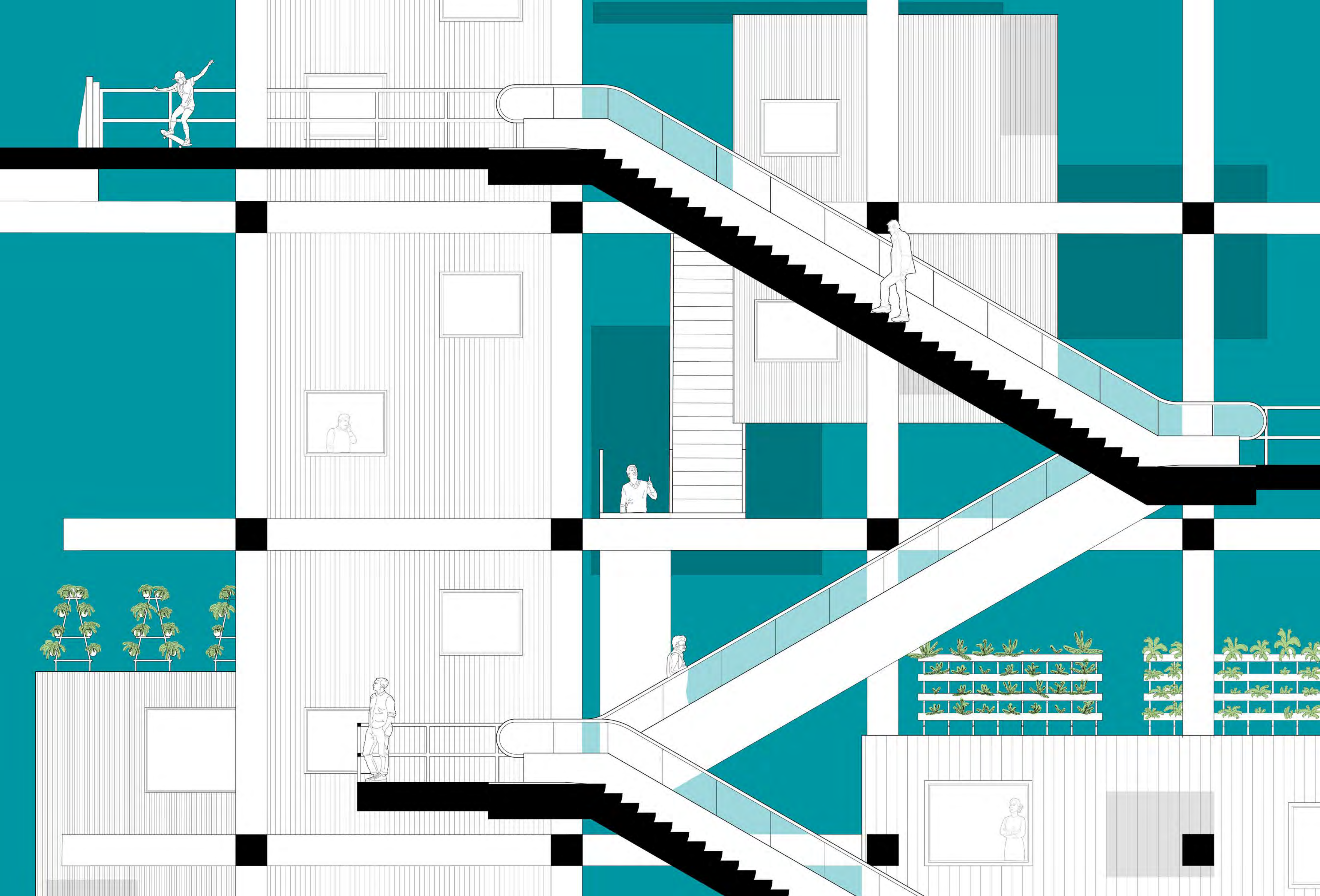
grupo de huertas en el red 15x15m

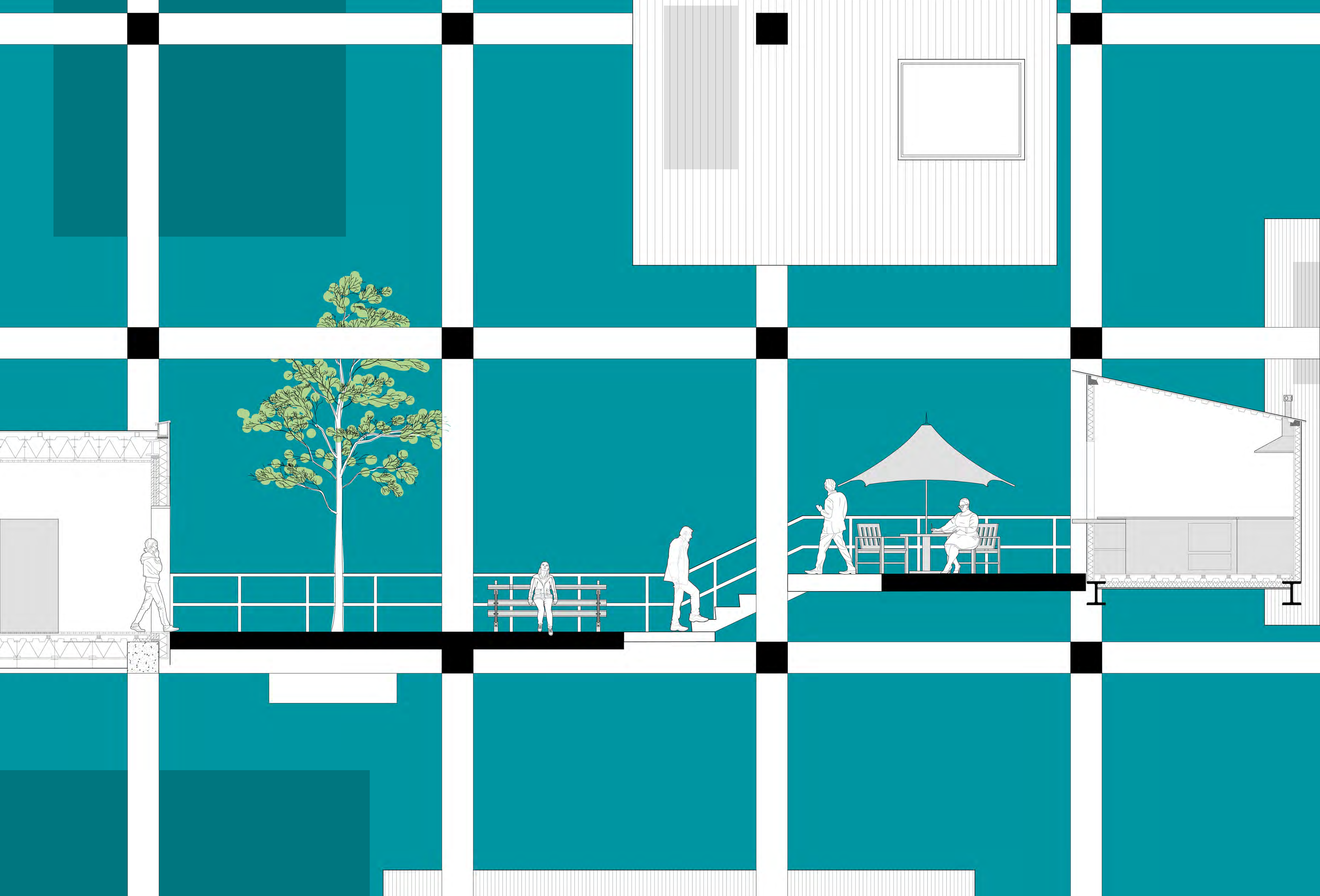


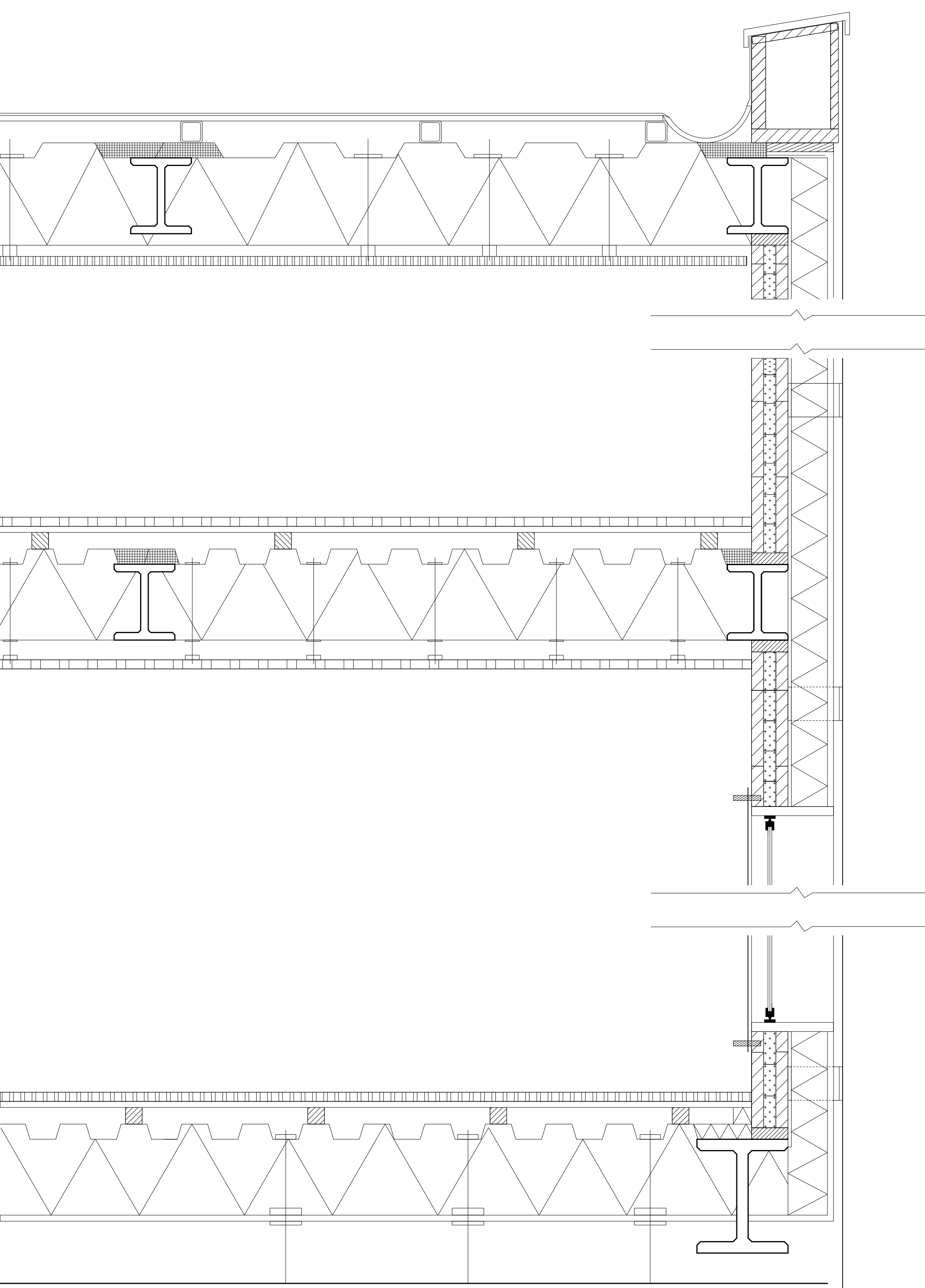
huerta encima de un casa familiar



1:75 seccion de la entrada principal







1:15 materialidad de vivienda ejemplar

el techo

PVC roof membrane
20mm plywood boards
square profile steel battens 70mm
breathable membrane
corrugated sheet steel 50mm + gypsum fireproofing spray
cork insulation 290mm
vapour barrier
air gap 35mm
heavy ceiling ties to corrugated sheet
hardwood ceiling panelling 30mm
valor u (aproximado): $u=0.15 \text{ W/m}^2\text{K}$

los muros

polycarbonate sheeting 12mm
*steel **I** mounts*
air gap 30mm
waterproof membrane
plywood board 20mm
mineral wool batt 130mm
structural CLT 120mm
vapour barrier paint
valor u (aproximado): $u=0.21 \text{ W/m}^2\text{K}$

la ventana oscuro

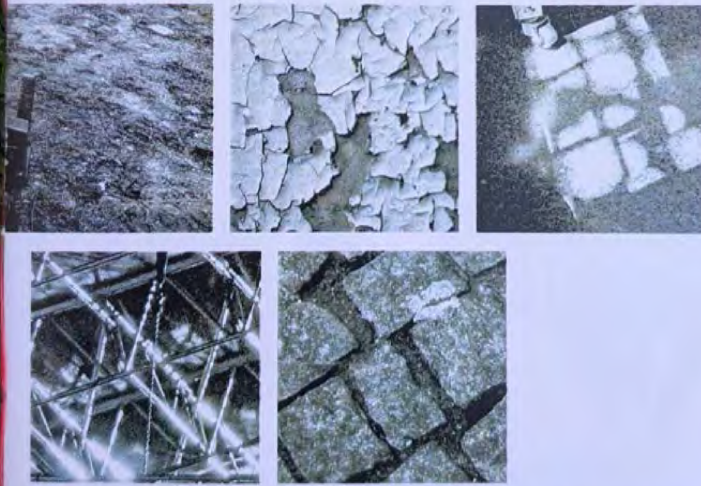
polycarbonate cladding over portal
double glazing in aluminium frame
polycarbonate sheeting
wooden dowels pinned through to CLT

el suelo

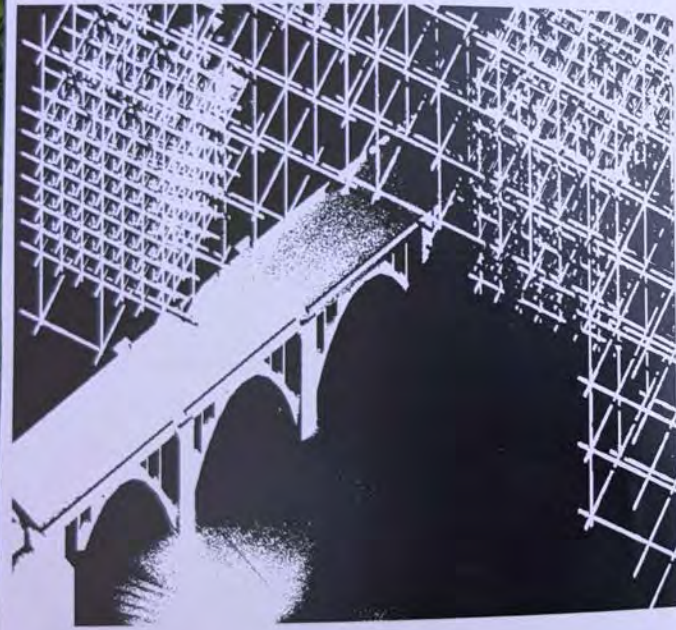
polycarbonate sheeting 12mm
steel ties to corrugated sheet
air gap 200mm
waterproof membrane
plywood board 20mm
cork insulation 250mm
corrugated sheet steel 50mm + gypsum fireproofing spray
vapour membrane
timber battens 55mm
plywood boarding 20mm
hardwood flooring 30mm
valor u (aproximado): $u=0.145 \text{ W/m}^2\text{K}$

experiencia

Life, texture, phenomenology



Vida, textura, fenomenología



A grid is easily shown in plan and section, a series of perpendicular axes that intersect regularly. But how does that translate into a walk to the shops, or a view from a bedroom window? A day in the life?



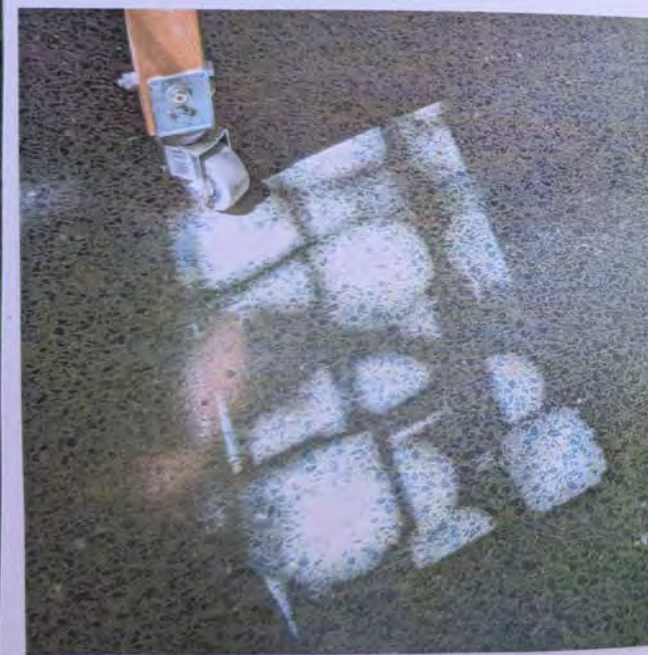
Una red se representa fácilmente en planta y sección: una serie de ejes perpendiculares que se intersecan regularmente. Pero ¿cómo se traduce eso a un paseo de compras, a la vista desde la ventana de un dormitorio o a un día en la vida?



A framework of this sort acts as a constant physical reminder of the energy involved in sustaining urban forms and urban living, more so than the often invisible or low-profile frameworks of the ground, they support your weight but also intrude, informing your life even as you wake.



komorebi: Los rayos que se filtran entre las hojas de los árboles



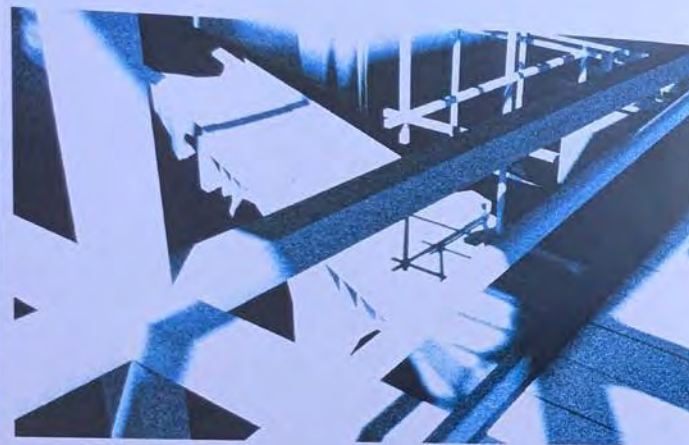
luz moteada



upward view of light well - dappled light (komorebi)
el poco proyecta su presencia verticalmente



Light dapples your path through the branches of an oak tree twenty metres above you, so you hop on an escalator and take in the sun from a park suspended a hundred metres above the city centre, before riding a lift another storey up to visit family for dinner.



Night provides space for reflection, above and below the lights of the city, 'within and without': the experience of living in the air becomes one of freedom, an unconnected floating commute.

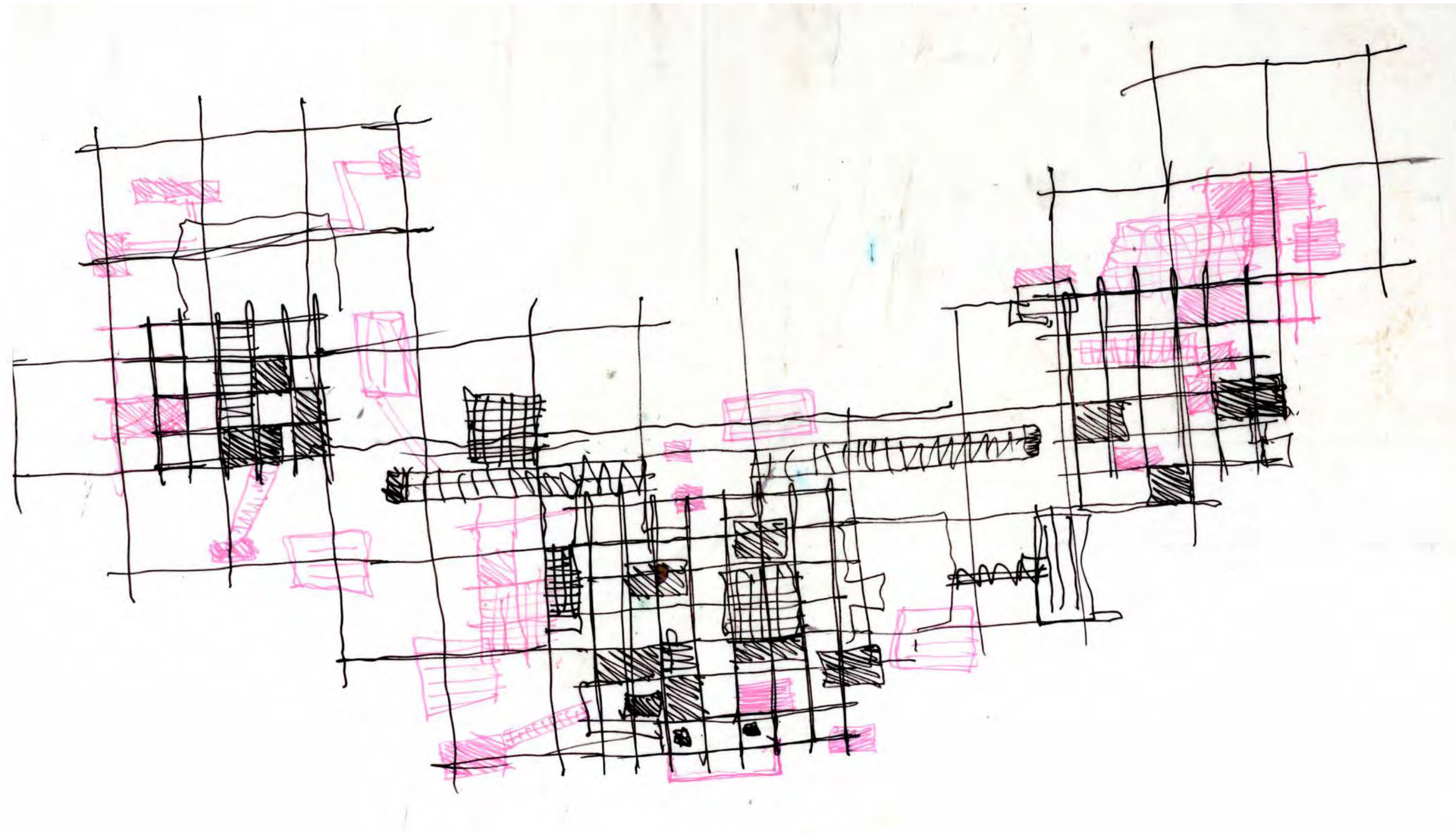


zine

Crecimiento \ el futuro
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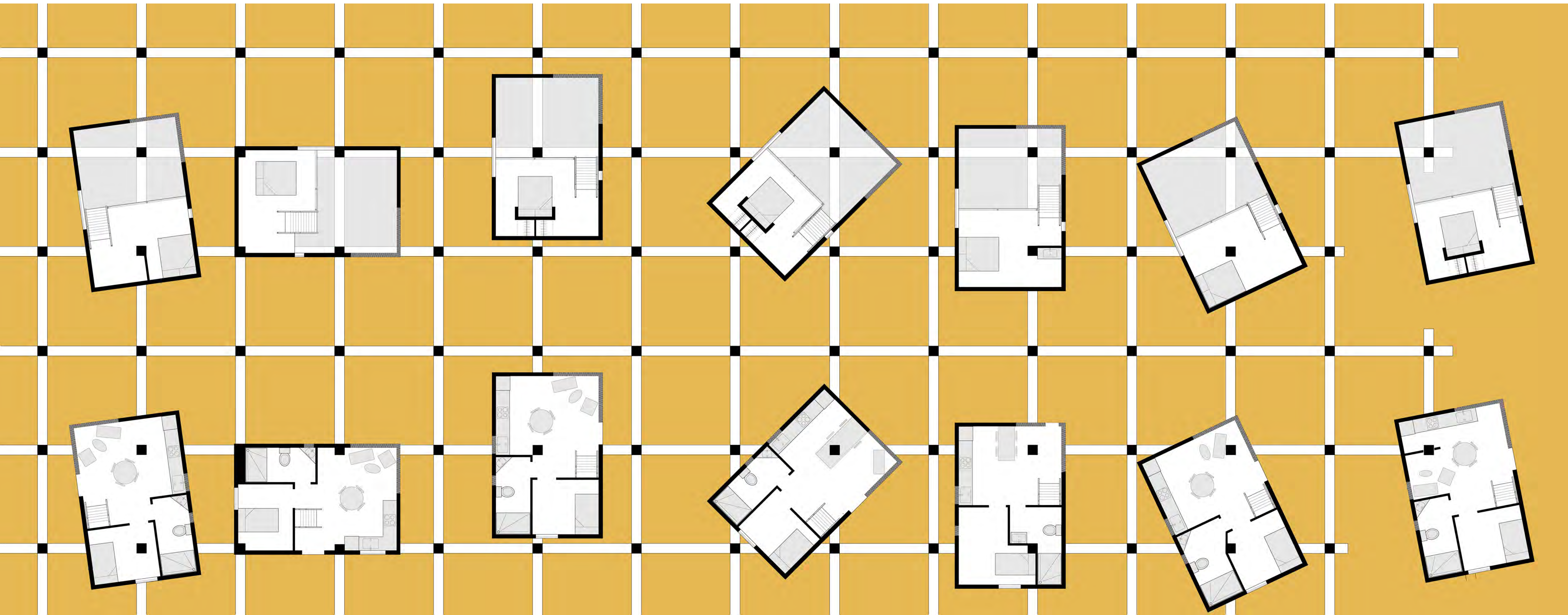
[illegible]



La estrategia de crecimiento es la de la tolerancia: la estructura, tal como se construyó, cuenta con amplios espacios vacíos que permiten a los residentes ampliar sus viviendas y espacios públicos, además de permitir la construcción de nuevas casas y edificios para satisfacer sus necesidades. No se ha establecido un plan estricto, y la siguiente es una interpretación de cómo podría verse el proyecto dentro de 20 años. Está fuera del alcance de los arquitectos.

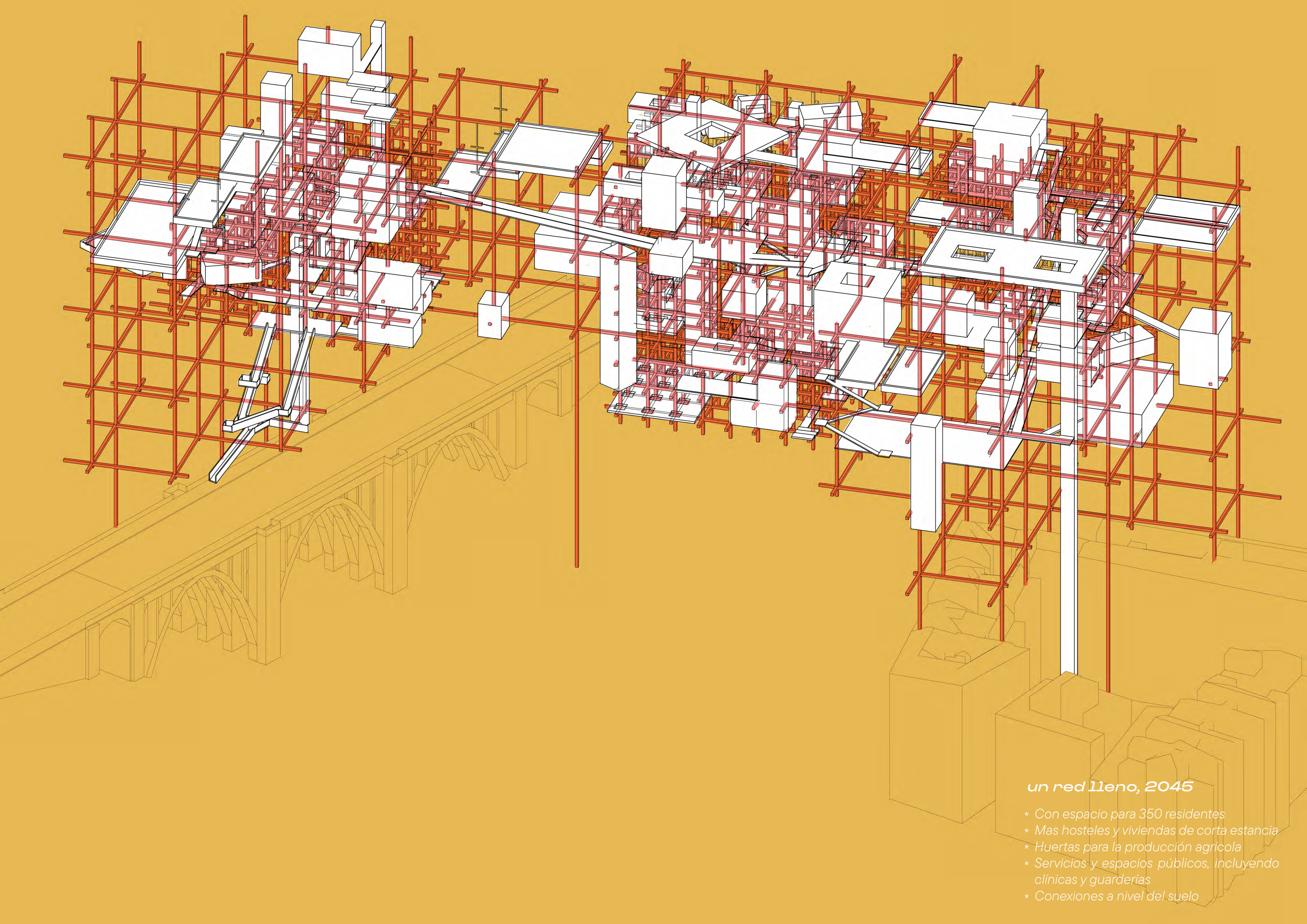
The strategy for growth is that of allowance: the structure as built has large empty spaces that allow for residents to expand their homes and public space, as well as allowing for new houses and buildings to be built to meet the needs of residents. No strict plan has been set forth, and the following is one interpretation of how the project might look 20 years in the future. It is out of the architects hands.

Variaciones en una casa de 2 dormitorios



Tal como están diseñadas actualmente, las viviendas y los edificios se alinean directamente con la cuadrícula, como es de esperar en un proyecto de nueva construcción y entrega a los residentes. A medida que la estructura deja de estar bajo el control de los arquitectos y el espacio disponible disminuye, las nuevas viviendas inevitablemente tendrán que modificar esta cuadrícula, creando un espacio aún más heterogéneo y variado, lo que permite encuentros espaciales aún más nuevos y únicos.

As currently designed, the homes and buildings align directly with the grid, as can be expected for a project newly built and handed over to residents. As the structure leaves the control of the architects, and as available space lessens, new homes will inevitably have to vary from this grid, creating a space that is even more heterogenous and varied, allowing for yet more new and unique spatial encounters.



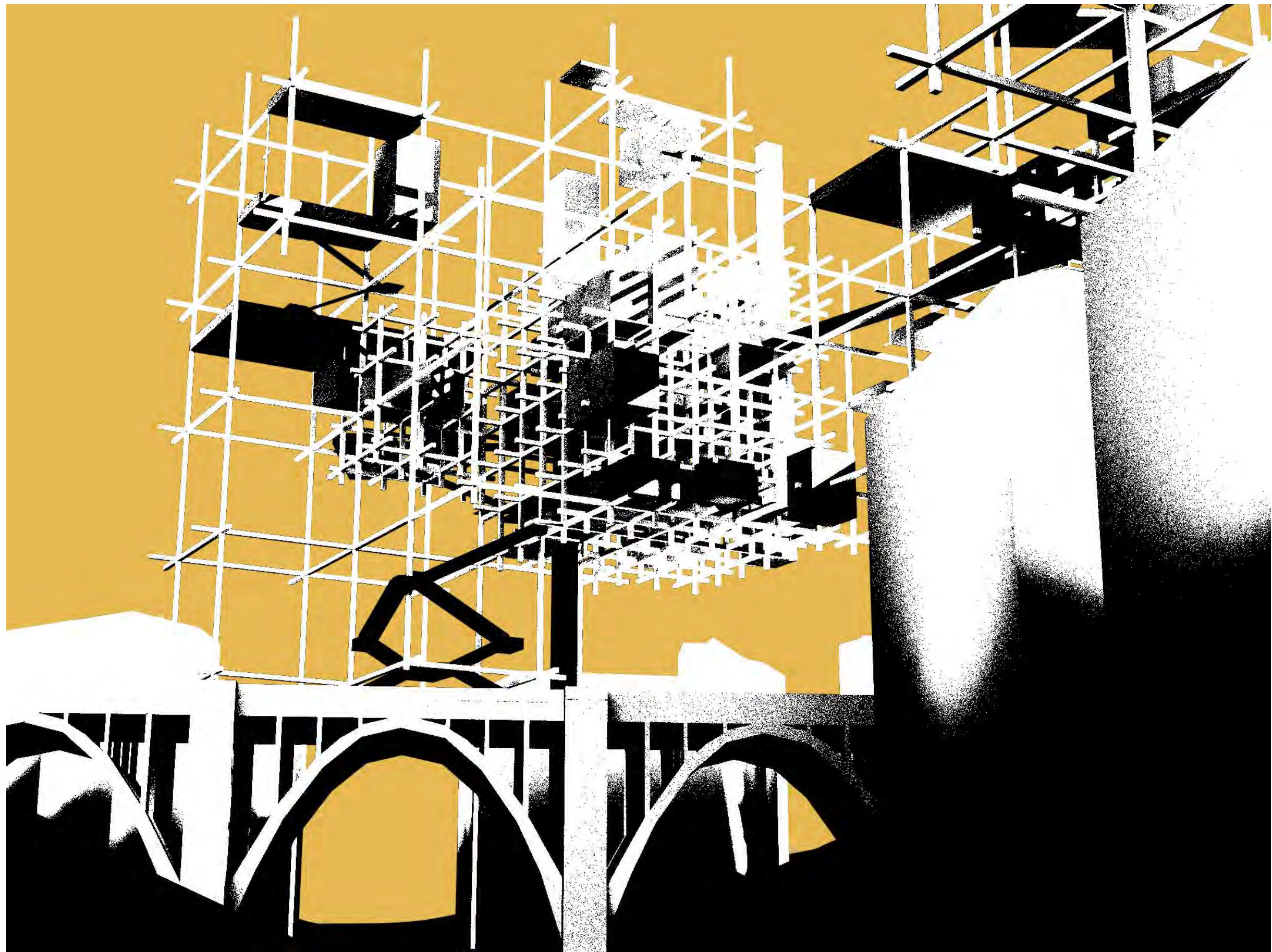
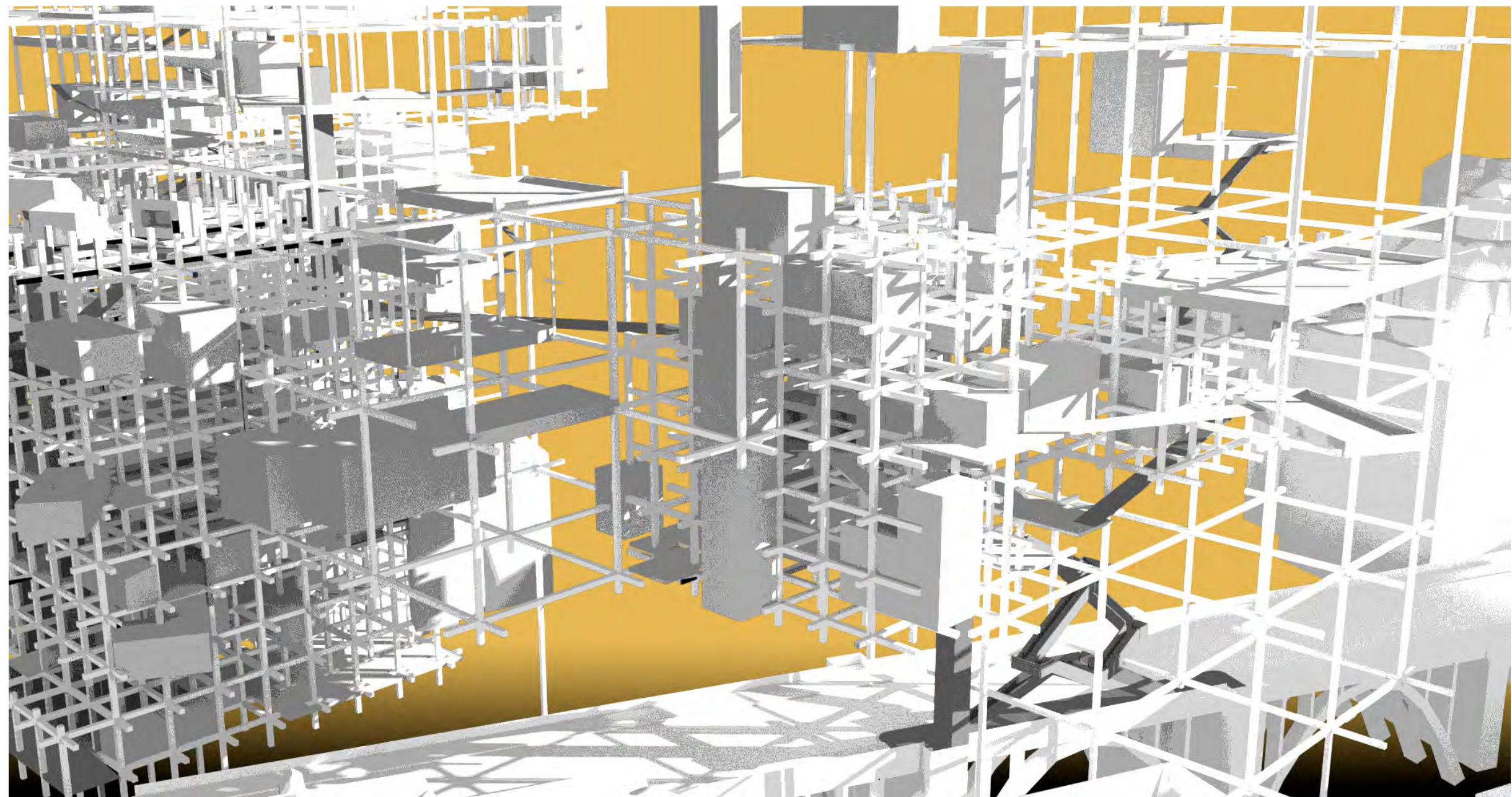
un red lleno, 2045

- * Con espacio para 350 residentes
- * Mas hosteles y viviendas de corta estancia
- * Huertas para la producción agrícola
- * Servicios y espacios públicos, incluyendo clínicas y guarderías
- * Conexiones a nivel del suelo





el futuro



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